A Thousand Roses: Teacher Beliefs and Perceptions of Practice

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Abstract

This qualitative study explores beliefs about teaching and learning among teachers and the implications for practice. The study was designed around the following overarching research question: *How do teachers articulate their beliefs about teaching and learning and what are the implications for practice?* Three sub-questions provided the framework for data collection and analysis:

- *How do teachers account for their teaching beliefs?*
- *How do teachers describe how their beliefs are formed?*
- *How do teachers relate their teaching beliefs to their perceptions of practice?*

Data sources include participant interviews, focus groups, participant essays, personal communication, participant writing, and visual data. Thematic analysis uncovers themes related to how teachers account for their teaching beliefs and how teachers describe how their beliefs are formed. Narrative analysis results in three personal narratives that explore how teachers relate their teaching beliefs to their perceptions of practice. The study concludes with a summary of contributions to the field of teacher beliefs and methodology. I also explore potential implications for teacher education, practice and educational leadership. Finally, I address potential limitations and identify potential areas for future research.
Résumé

Cette étude qualitative examine les croyances des enseignants et les implications pour la pratique d’enseignement. L’étude a été conçue autour de la question de recherche: *Comment les enseignants expriment-ils leurs croyances sur l'enseignement et quelles sont les implications pour la pratique?* Trois sous-questions ont fourni le cadre pour la collecte et l'analyse des données:

- *Comment les enseignants décrivent-ils leurs croyances d'enseignement?*
- *Comment les enseignants décrivent-ils la formation de leurs croyances?*
- *Comment les enseignants tissent-ils des liens entre leurs croyances d'enseignement et leurs perceptions de la pratique?*

Les sources de données comprenaient des entrevues des participants, des groupes de discussion, des essais de participants, des discussions personnelles, les écrits des participants et des données visuelles. L’analyse thématique a relevé des thèmes liés aux croyances d'enseignement ainsi que la formation de celles-ci. L’analyse narrative a abouti à trois récits personnels qui ont exploré comment les enseignants liaient leurs croyances d'enseignement à leurs perceptions de la pratique. L’étude se termine par un résumé des contributions dans le domaine des croyances d'enseignement ainsi que des contributions méthodologiques, une exploration des implications potentielles pour la formation des enseignants, la pratique des enseignants et le leadership en éducation, et une identification de domaines potentiels pour des recherches futures.
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A special thanks to my two children Sadie and Jackson. Thank you for your support and patience, for countless nights of making yourself dinner, and for not resenting me for spending weekends in the sunroom surrounded by books and staring at my laptop. The two of you live deep in my heart. I love you both very, very much and I’m very proud of who you have become. You cheered me on as I worked towards this goal and I hope you both go after your own goals with equal tenacity, hard work and good humor.
Finally, I dedicate this study to all teachers. I am deeply appreciative of the ten participants for contributing their time, and trusting me with their personal stories. I truly hope I did justice to each and every one of you. When I entered the doctoral program I wanted my work to matter and I wanted it to represent teacher voice. Teaching is exhausting, sometimes frustrating, sometimes rewarding, but always engaging and tremendously critical work. This work is not for the faint of heart or for those that need constant praise or validation. To teach is to give our hearts and our minds and on some days our very souls to better this world one child at a time.
Chapter One: Introduction

Throughout my career, I have come to appreciate the existence of a phenomenon surrounding the development of teacher beliefs and how these beliefs relate to classroom practices. I have pondered ways in which to tap into and influence teacher beliefs within school improvement efforts--actions which are designed largely to change teaching practices. I believe that educational leaders have underestimated this area of study in the drive towards top-down, rapid school reform models. Despite the movement in the United States towards standards-based/outcome-based education, and the trend towards adoption of the teacher-proof curriculum, I posit that daily decisions about classroom instruction remain largely dependent on the individual teacher’s beliefs.

I believe that effective teachers are those who do not accept innovation blindly but are reflective practitioners who test their beliefs on a daily basis within the classroom laboratory. These teachers do not abandon their beliefs about teaching and learning with each new educational reform movement, but look openly and critically at new ideas, measure them against their own beliefs, and assimilate, accommodate or resist as a result of self-reflection. Having served as a classroom teacher, school administrator, curriculum director and teacher educator, I empathize with teachers and the position they find themselves in today’s political debate around education. I am drawn to those teachers who openly contemplate their beliefs and seek to better understand teaching and learning in order to provide high quality education to their students.

I continue to struggle with my own pedagogical beliefs. I question how my teaching philosophy and practices have changed over time based on my teaching environments and how the events in my own life and the different professional roles I have assumed throughout my career have may have contributed to my teaching beliefs. I recognize that many forces, both
internal and external, have influenced my beliefs. In search of answers, I turned to curriculum theory to understand the foundational underpinnings of the pedagogies I’ve experienced as a student, was taught as a young educator, and those for which I am responsible leading as a school leader. I pondered how these conflicting pedagogies have contributed to my own confusion, and I wondered if other educators found themselves in a similar place of internal conflict. As I reflected on my own journey, I grew increasingly curious about the process that other teachers engaged in throughout their own careers and how they made meaning of their own teaching beliefs and practices.

On a warm August morning in my fourteenth year as an educator, I arrived at the Flynn Center for Performing Arts in Burlington, Vermont. At the time, I was serving as the Director of Curriculum for the Chittenden South Supervisory Union. One of my responsibilities was to organize our district’s opening day, the one day each year when teachers from across the seven supervisory union schools came together. In previous years, opening day included speeches from our superintendent and school board chair. Sometimes we invited a student to address the group or brought in an external speaker. Normally, the event took place in our regional high school gymnasium; however the space was under renovation that year and due to our partnership with the local arts center, we hosted the event at the Flynn Center for the Performing Arts. Teachers arrived by bus that morning and entered the beautiful theatre and settled into comfortable red theater chairs. Taking full advantage of the location, I had organized the day around a celebration of our schools’ art programs. Throughout the morning I introduced student groups from each school and then watched as the students performed a single song from their spring musical. The morning closed out with our high school performing a moving rendition of Les Miserable’s “One More Day.” When the group finished, I stepped on stage to close out the event to find that the
students had taken hold of the microphone. The first student looked out into the sea of faces and asked if his former third grade teacher was in the audience. Shocked, she stood up and waved toward the stage. The student said, “I just wanted to let you know that you were the best teacher I ever had, and I want to thank you.” It went on as each of the high school students on stage, one-by-one, handed the microphone around and addressed a specific teacher who had made a difference in their lives. We were all shocked by the act, and I witnessed an emotional response from the crowd of educators. I could not have planned a more meaningful way to open the school year. What was more significant was the realization that several of those teachers identified were teachers who had either gone unnoticed for their work or who were on improvement plans within our supervision and evaluation system. The event caused me to stop and think about what makes a good teacher and how varied that definition can be.

One of my roles as district curriculum director was to bring teachers together, and facilitate consensus around curriculum, assessment, and instructional practices. The field of education at this the time was heavily driven by standards-based/outcome based education. Schools were increasing the size and scope of their local assessment plans, and our state school accountability system was redefining the way our schools and teachers were evaluated. Terms like “failing schools” and “highly qualified teachers” dominated the landscape. However this simple act, organized by the students, caused me to question the very framework upon which my work was currently organized.

I entered the doctoral program with a goal of trying to understand teaching beliefs and how beliefs relate to practice. I reflected on those teachers who had made a difference in my young life. I wondered, if I were on that stage that day, which teachers I would have pointed out and offered my appreciation. Several teachers came to mind, but in one particular stood out: Leo
Frechette, my high school French teacher. I was a student who could be described as academically successful, motivated by grades but not particularly engaged. A shy student in a large high school I spent most of my time trying to go unnoticed. I was not particularly good at French, and I struggled to maintain my average grades, however year after year I continued to sign up for French until, as a senior, I was one of only six students in French V. Students had great respect for Mr. Frechette for his knowledge, and the thoughtful, engaging, and often playful way in which he organized his lessons; the way he got to know each and every student, holding each of us to high expectations. He was a teacher who took the time to notice me, really know me, and challenged me in ways that pushed me out of my comfort zone. I credit him for my continued studies in languages.

In my last year of high school Mr. Frechette introduced me to Antoine de Saint-Exupery’s *The Little Prince*. Throughout the year we worked our way through the French version of the text. More than just a French text whose purpose was to help us learn vocabulary and grammar, the book was a source of conversation about deeper ideas, touching on philosophy, politics, religion, and education. Since leaving high school, I’ve collected two other editions of the book, one in English and one in German. Over the years I find myself thinking about the different characters, remembering the text in a number of instances while studying International Relations and German as an undergraduate, and in my graduate studies in education. I thought of the book as I raised my own children and made connections between the text and my own work over the years as a teacher, curriculum director, and teacher educator. While at McGill, I took the Interpretive Inquiry course with my advisor Dr. Lynn Butler-Kisber, and I thought about the Little Prince leaving the safety of his planet and wandering from planet to planet exploring the universe in search of meaning. So it seems inevitable my studies culminate with a tribute to the
book I encountered as a young student, a book that I have found multiple connections in through the years, and by organizing this paper around themes drawn from *The Little Prince*. Individual teachers are like the single rose among thousands of roses, each with their own unique beliefs that warrant our attention and nurturing. As the little prince explains to his friend, “people where you live,” the little prince said, “grow five thousand roses in one garden… yet they don’t find what they’re looking for…and yet what they’re looking for could be found in a single rose, or a little water…” (de Saint-Exupery, 1943, p. 70).

**Prior Related Studies**

I have been involved in a number of studies that inform the conceptual framework and design of this study. Prior to entering in the doctoral program at McGill I engaged in post-graduate study at Boston College and the University of Vermont. In 2006 I explored the changes in school accountability in Vermont and Maine, specifically the impact on student learning and in 2007, I conducted a qualitative study examining teacher perception of student poverty and how teacher perceptions impacted their choices in instruction.

While at McGill I had the great fortune to work alongside Drs. Claudia Mitchell, Teresa Strong-Wilson, and others on a project that examined the role of visual evidence in teacher portfolios (Mitchell et al., 2010) and the potential role that visual text could play in soliciting participant reflection about teaching beliefs and practices (Strong-Wilson, Cole, & Noroozi, 2013). In another study, *Changing Literacies/Learning with Laptop Project*, I worked with Dr. Strong-Wilson to explore teacher perception and articulation of their beliefs and practices throughout a school change process by analyzing teacher blogs and observing reflective discussion in professional development meetings (Strong-Wilson & Cole, 2012a, 2012b, 2012c).
As I moved through the doctoral program, I engaged in deeper research involving teacher formation and teacher identity as it relates to pedagogical beliefs and looked at specific initiatives and their impact on teacher beliefs (Cole, 2009, 2010). In 2010, I explored a process of unpacking teacher pedagogy through the use of visual methods, Object-Memory, reflective writing, and focus group discussion (Cole, 2011). I came to appreciate the role that memory methodology plays in an individual’s reflection on their past and how events, and perceptions of events, shape their beliefs and their identity over time.

My interest in teacher pedagogy also plays a significant role in my own professional work as a curriculum director. In 2011, I launched a district-wide action research project where 10 middle and secondary school teachers were provided with funds to purchase technology in order to make their classrooms “one-to-one” and track student learning as a result of the investment. As a course instructor in the graduate education program at St. Michael’s College, I adopted the work of Michael Schiro (2008, 2013) engaging pre-service teachers and teacher leaders in an examination of their beliefs using his curriculum ideology tools. The successful use of his tools in soliciting deeper reflection about teacher beliefs within the historical landscape of educational reform in the United States convinced me to include modified versions of his tool in this study. These prior studies have informed my inquiry into teacher beliefs and the implications for teaching practices and have influenced the design of this research study. I have recorded potential biases in my researcher journal and conducted a self-check throughout the development of my findings.

**Paper Organization**

This study explores teacher beliefs, how teacher beliefs are formed, and the teachers’ perception of practice as it relates to their teaching beliefs. The following question serves as the
overarching research question for the study: *How do teachers articulate their beliefs about teaching and learning, and what are the implications for practice?* Three sub questions provide the framework for data collection and analysis:

- *How do teachers account for their teaching beliefs?*
- *How do teachers describe how their beliefs are formed?*
- *How do teachers relate their teaching beliefs to their perceptions of practice?*

Chapter Two provides a critical review of the literature central to this study. I explore the literature related to teacher formation and teacher beliefs, teacher knowledge and teacher beliefs, and finally curriculum, learning theory and teaching beliefs. Chapter Three describes this methodology, situating the study within the research landscape and articulating the epistemological perspective upon which the study was designed. I also explore the role that memory and metaphors play in the study and address ethics and credibility. Chapters Four, Five and Six present findings related to the study’s three sub questions. Chapter Four and Five use thematic analysis to uncover how teachers account for their teaching beliefs and how teachers describe how their beliefs were formed. Chapter Six is a narrative analysis that explores how teachers relate their teaching beliefs to their perceptions of practice. Finally Chapter Seven culminates the paper where I identify contributions to the field of teacher beliefs and methodology. I explore the implications for teacher education, teacher practice and educational leadership. I discuss potential limitations of the study and share potential areas for future research.
Chapter Two: Conceptual Framework

Teaching is a complex human endeavor and the phenomenon of teacher formation is equally as complex. Teachers develop teaching beliefs and teacher identity through a combination of contrived and organic experiences set in very specific contexts. Ayers (2001) describes the process of teacher development as “a stitched-together affair, a crazy quilt of odd pieces and scrounged materials, equal parts invention and imposition” (p. 1). Ayers built upon his teacher Maxine Greene’s notion of the fully developed teacher (Greene, 1978) applying the metaphor of the journey as a means of understanding teacher formation. Beginning with childhood experiences, growing through teacher-preparation programs and professional careers, teachers are made through experiences inside and outside the classroom. These experiences include mentorship, professional development, continuing education, relationships with colleagues and educational leaders, trends in public policy, research, personal relationships, context and encounters with students.

Pajares outlines a set of fundamental assumptions about teacher beliefs including the idea that beliefs are formed early and “tend to self-perpetuate, persevering even against contradictions caused by reason, time, schooling, or experience” and that “individuals develop a belief system that houses all the beliefs acquired through the process of cultural transmission” (p. 324). Within a socio-cultural theoretical framework, teacher formation cannot be separated from the teacher as an individual person. “Teaching makes the teacher. Teaching is a boomerang that never fails to come back to the hand that threw it … teaching does something to those who teach” (Waller, 1932, p. 375). In his pivotal work Schoolteacher (1975), Lortie builds upon Waller’s concepts by looking specifically at the ethos of teachers, or the collective character within a school. Since schools are a place for social learning, applying a socio constructivist learning framework is
helpful in examining the process by which teachers learn and develop pedagogical beliefs. Within this frame, Piaget’s cognitive learning theories are useful for exploring teacher development. Constructivism suggests that there are specific mechanisms through which knowledge is internalized by learners. Learners encounter new experiences and will either accommodate or assimilate the experience into their framework. Assimilation occurs when the new learning complements their current framework of thinking and their beliefs. The new learning is then added to that framework and ultimately expands or strengthens the learners’ existing framework without changing the framework significantly. Accommodation occurs when the new learning challenges the existing framework. The new learning then has the potential to reframe the learner’s perspective (Jardine, 2006, pp. 44–47). Socio constructivist learning theory, as is conceived by Piaget, Dewey, and Vygotsky, would also suggest that the teacher/learner engages in an internal reflective cognitive process within the social context (Beck & Kosnik, 2006).

A review of the literature reveals that research on teacher beliefs appears in multiple discourse communities to varying degrees including teacher identity, teacher knowledge and curriculum studies. However first, it is important to look at how the term belief has been defined by researchers within and across these communities.

**Defining Teacher Beliefs**

Teaching practices, or the decisions that teachers make every day in the classroom, are tied to their teaching beliefs (Fenstermacher, 1979; Nespor, 1984, 1987; Pajares, 1992) and yet despite considerable research on teacher beliefs, there is a lack of consensus on the definition of teacher beliefs and what constitutes teaching beliefs. Some define the term broadly to include both subjective and often value-laden beliefs as well as objective knowledge (Clandinin &
Connelly, 1987; Cochran-Smith & Lytle, 1993; Elbaz, 1991; Goodnough, 2001; Louden, 1991; Shulman, 1987) while others use frameworks that intentionally separate the two areas (Nespor, 1984, 1987; Pajares, 1992). Connolly and Clandinin (1987) examine the use of the term and uncover a variety of uses and definitions within research, representing a range of interpretations including frames of reference, knowledge, attitudes, beliefs and values (p. 487). Connolly and Clandinin’s suggest that the definition of the term teacher beliefs varies depending on the scope and intent of the study. Eisenhart, Shrum, Harding, and Cuthbert (1988) also suggest that the lack of consensus in defining the term is directly related to the motivations and agendas of different researchers. For example, Elbaz (1981) explores the idea of “personal practical knowledge” (p. 490) to describe knowledge which is experiential, embodied, and reconstructed out of the narratives of a teacher's life and which includes content knowledge, knowledge about curriculum, knowledge about instructional practice, personal or self-knowledge and knowledge gained from interacting with others in their professional environment. Darling-Hammond and her team examines how teachers learn and develop through the lens of an expanded definition of teacher knowledge to include “adaptive expertise” or lifelong learning (Hammerness et al., 2005, p. 358). Jan Nespor proposes a definition drawn from cognitive psychology in his Teacher Belief Study (1987) which looks at the structure and function of teacher belief sets and implications for practice. He suggests that, unlike knowledge acquisition, beliefs develop through emotional experiences.

Pajares’ explores teacher beliefs and the relationship between teacher knowledge and teacher beliefs (1992). Building upon Nespor’s research on teacher beliefs (1987), Pajares argues that, while knowledge can often be viewed as objective and debatable, beliefs are individual, personal and do not require consensus. Pajares differentiates between beliefs that are based on
subjective evaluation, affect, and judgment from knowledge which is based on objective facts. Dewey defines belief as the third meaning of thought, "…something beyond itself by which its value is tested; it makes an assertion about some matter of fact or some principle or law" (as cited in Pajares, 1992, p. 313). Richardson describes the difference between the formation of teacher knowledge from the formation of teacher beliefs and suggest that development of knowledge undergoes a cognitive process of backing knowledge with evidence or “epistemic warrant” whereas construction of beliefs does not (2003, p. 3). For example, a teacher may hold a belief that learning should be individualized which may cause the teacher to explore the notion of differentiated instruction and assessments. However, specific knowledge about differentiated instruction, the relationship to formative assessments and how this teaching strategy functions effectively in the classroom is based on direct experience with the practice.

As I discuss in the Methodology Chapter (Chapter Three) and in each of the findings chapters (Chapters Four, Five and Six), I chose to remain open to a broad definition of the term belief as I designed this study. The questions in the interviews and focus groups allowed for participants to discuss their beliefs whether they were based on core values or practical knowledge. As I analyzed the data I observed the way that teachers spoke about the term and noted any relationship to identity, teacher knowledge and curriculum or learning theory. Accordingly I will now provide a review of the literature on teacher beliefs within each of these discourse communities.

**Teacher Beliefs and Teacher Identity**

Teaching beliefs are an integral part of a teacher identity (Britzman, 1986, 2003; Pajares, 1992). Bracher simply defines identity as “the sense of oneself as a force that matters in the world” (2006, p. 6). There is a great deal of interest in research on teacher identity and the
formation of identity among pre-service and practicing teachers (Beauchamp & Thomas, 2006, 2009, 2010; Freese, 2006; Williams & Power, 2010). Many studies attempt to define the term teacher identity, and while no single definition has been adopted, there appears to be a common acceptance of the notion that teacher identity is not static but involves growth and development over time and is influenced by a variety of external factors including personal and professional contexts (Beauchamp & Thomas, 2009; Hoekstra & Korthagen, 2011; Lortie, 1975) as well as internal factors such as emotion (Freese, 2006; Hargreaves, 1998; Zembylas, 2003a, 2003b, 2006). Despite the lack of consensus on the definition, there is agreement about the dynamic nature of teacher identity as it relates to teacher development. “Teacher development is circular even as it is also forward-moving: a teacher is always collapsing the past, present, and future into a complex mélange of professional beliefs, goals, memories, and predictions while enacting practice” (Olsen, 2008a, p. 24). A 2008 special issue of the Teacher Education Quarterly explores how teachers develop an understanding of their identity within social contexts and the processes by which this understanding occurs. Focusing on teacher identity framed on socio-cultural theory Olsen states that “teaching is not merely a cognitive or technical procedure but a complex, personal, social, often elusive, set of embedded processes and practices that concern the whole person” (p. 5). Olsen suggests that teacher identity can be both a topic of study as well as a methodological tool through which teacher formation can be explored. In either frame, the value of teacher identity is the degree to which it “treats teachers as whole persons in and across social contexts who continually reconstruct their views of themselves in relation to others, workplace characteristics, professional purposes, and cultures of teaching” (2008b, p. 5).

Parker Palmer, in his widely read book The Courage to Teach, poses the question, “Who is the self that teaches?” answering by connecting teacher identity with integrity. Palmer states:
Identity and integrity are not the granite from which fictional heroes are hewn. They are subtle dimensions of the complex, demanding, and lifelong process of self-discovery. Identity lies in the intersection of the diverse forces that make up my life, and integrity lies in relating to those forces in ways that bring me wholeness and life rather than fragmentation and death … Identity and integrity can never be fully named or known by anyone, including the person who bears them. (1997, p. 8)

Rokeach examines beliefs and belief systems and suggests that an individual’s beliefs are part of a web, that beliefs are interconnected within a larger system of beliefs. Rokeach suggests that the more central a belief, the more it will resist change (as cited in Pajares, 1992, p. 318). Pajares builds off of Rokeach’s theories by suggesting that teacher beliefs, or attitudes, translate into action in the form of teacher practice, which in turn continues to further develop teacher identity.

**Teacher Beliefs and Knowledge**

Many define beliefs as a form of technical teaching knowledge that is tied to teaching practices and have produced frameworks that outline essential teacher knowledge needed in teacher education programs (Ayers, 1988; Carter, 1990; Darling-Hammond, 2006, 2012; Darling-Hammond et al., 2005; Shulman, 1987). Elbaz describes such knowledge as "practical knowledge" (1981, p. 1). While there is an assumption that building teacher knowledge is connected to the individual’s experiences, there is also a belief that the teaching profession contains a shared knowledgebase required for effective teaching which is represented by both theoretical knowledge and teacher expertise (Fenstermacher, 1979). Calderhead (1996) suggests that teacher knowledge is developed through a series of events including practical experiences, formal educational experiences and ongoing professional learning. However Elbaz contests the
view of the teacher as a blank slate upon entry in teacher education programs or a “… cog in the educational machine” (1983, p. 10) and argues for recognition of the human context in the social construction of knowledge.

There are those who refute the definition of teacher knowledge as limited to content knowledge and call for one that includes an appreciation for and understanding of how teacher knowledge develops, the role that thinking processes play in successful curriculum development and instructional delivery (Calderhead, 1996; Clandinin & Connelly, 1987; Connelly & Clandinin, 1990; Shulman, 1987), and the relationship between individual teacher identity and teacher knowledge within teacher development (Ayers, 1988; Mitchell & Weber, 1999). Pajares proposes a relationship between beliefs and knowledge suggesting that “knowledge and beliefs are inextricably intertwined, but the potent affective, evaluative, and episodic nature of beliefs makes them a filter through which new phenomena are interpreted” (1992, p. 325).

Hammerness (et.al.) proposes the use of the term “adaptive expertise” to describe the skill set required of today’s developing teachers (2005, p. 359). The authors point to three problems which exist in teacher learning and advocate that the field address each in order to support teacher development towards adaptive expertise. First, new teachers are being asked to teach in a way that they may not have experienced themselves as students. Second, teaching requires the ability to take theory and put it into action within the classroom, supporting Cochran-Smith and Lytle’s theories about teacher learning through practitioner research (1993). Third, the authors point to the “problem of complexity” (Hammerness, et. al. p. 359) where teachers are juggling multiple curriculum pedagogies in a classroom with a variety of learning styles and student needs. This perspective provides a pragmatic lens of teaching practices and the implementation of curriculum within the actual classroom and strengthens the argument for a
broader view of teacher knowledge and the relationship between teacher beliefs and practices. Hammerness (2006) followed with a case study that provides vivid illustrations of teachers struggling to connect their personal beliefs to the practical realities of the classroom, the school and the community in which they teach. Through teacher narrative, Hammerness was able to illuminate how teacher perceptions of personal success and failure vary from teacher to teacher as is measured by the teachers by the degree to which their practices match their teaching beliefs.

**Teacher Beliefs and Reflective Practices**

Sarason (1971) points to the isolated nature of teaching within the school context, describing teaching as “a lonely profession …” with schools serving as a place where a collective of individuals working primarily in isolation and whereby “… the teacher is alone with problems and dilemmas, constantly thrown back on personal resources” (p. 196). The isolated nature of teaching points to the critical need for individual and collective reflection in the education profession. Korthagen calls for formally embedded teacher “core reflection,” through specific protocols, within teacher education programs as well as professional learning for experienced teachers (Korthagen, 2004; Korthagen, Kim, & Greene, 2012; Korthagen & Vasalos, 2005, 2010; Meijer, Korthagen, & Vasalos, 2009).

There have been a significant number of studies on how teacher reflective practices contribute to the social construction of teacher knowledge (Beauchamp & Thomas, 2006; Cochran-Smith & Lytle, 1993, 2009; Freese, 2006; Hargreaves & Fullan, 1992; Korthagen & Vasalos, 2005; Schön, 1983, 1987; Williams & Power, 2010). Using the work of Freire as a framework (1972), Elbaz looks at the relationship between teacher knowledge and reflection, identifying three phases in the development of the teacher’s “self-reflexiveness”: sympathetic description, analysis/synthesis, and action (1988, p. 174). Ongoing inquiry and reflective
practices should be considered in the formation of teaching beliefs and identity among pre-

ter-service teachers in teacher education programs and among practicing teachers within the school

setting (Beck & Kosnik, 2006; Cochran-Smith & Lytle, 2009; Schön, 1983). Schön (1983)

emphasizes the importance of reflective practices in the teaching profession, in large part

because teachers are “frequently embroiled in conflicts of values, goals, purposes and interests”

(p. 17). He describes teachers who practice critical reflection as those who are aware of the

choices they are making as they teach and are also able to reflect back and critique their practices

after teaching and the need to incorporate critical reflection as a habit beginning in teacher

education and throughout their teaching career.

Brookfield (1995) examines reflective teaching practices and suggests that the process

begins by identifying our preconceived notions or assumptions. Brookfield suggests there is a

relationship between teacher reflection and teacher practices. “Although our foundational beliefs

... can remain essentially unchanged we keep learning different ways to realize them in our

work” (p. 25). He defines assumptions as “the taken for granted beliefs about the world, and our

place within it, that seem so obvious to us as not to need to be stated explicitly.” He goes on to

state “assumptions give meaning and purpose to who we are and what we do. Becoming aware

of the implicit assumptions that frame how we think and act is one of the most puzzling

intellectual challenges we face in our lives” (p. 2). He suggests that assumptions fall into three

categories. First, **paradigmatic assumptions** are ways in which we organize knowledge or our

objective view of reality. Second, **prescriptive assumptions** are assumptions about what we think

ought to occur, or in the case of teaching practices, how we think teachers should behave and

what good educational practices should look like. Finally **causal assumptions** are assumptions
about how different parts of the world work and about the conditions under which these can be changed.

**Teaching Beliefs and Curriculum Theory**

Curriculum studies tend to apply theoretical frameworks to examine teaching and learning. A review of the literature reveals the existence of an array of differing philosophies and pedagogical approaches to instruction, often with contradictory messages about the purpose of schooling, the role of the teacher and what constitutes *curriculum*. Each individual curriculum theory can be traced to its own set of reform movements, language and political rhetoric (Pinar, Reynolds, Slatterly, & Taubman, 2006; Schiro, 2008; Schubert, 1996). Literature within curriculum studies explores multiple perspectives at the macro level regarding curriculum as *currere* (Henderson & Kesson, 2004; Pinar, 1975; Pinar & Grumet, 1976) and curriculum as a political act (Apple, 1988, 2004; Freire, 1972; Kincheloe, 1993).

Examining curriculum theory requires questioning the purpose of schooling. For example, the traditionalist’s view of curriculum theory associated with the Tyler Rationale defines curriculum as a discrete body of knowledge provided to students within specific content disciplines (Tyler, 1949). Roles are defined in hierarchical terms; the teacher’s role is technical, and the teacher’s values and biases are left at the doorstep. The school administrator’s job is to ensure that the student learning is aligned to pre-determined outcomes through common instructional approaches and is periodically assessed. Conversely those who believe that the purpose of schools is to educate citizens to be members of a democratic society would advocate for a definition of curriculum that would include negotiated knowledge and democratic teaching practices. John Dewey advocated for a democratic education system where children develop democratic ideals and values and their experiences combine with content knowledge (1938).
Within this paradigm, the teacher’s role is to facilitate learning, and where learning is individualized. Critical theorists including Michael Apple (1988) and Henry Giroux (1988), drawing upon the work of Paulo Freire (1972), call on teachers to play the role of critical pedagogues, cognizant of how curriculum and instructional practices may intentionally or unintentionally challenge or perpetuate social, political and economic inequalities in the relationship between dominant and marginalized populations within society. Proponents of multicultural education (Banks, 1993) and feminist pedagogy (Grumet, 1981) concern themselves with hegemony and issues of power within curriculum with regards to race, culture, and gender.

Schubert sums up the complexity of curriculum studies by stating that curriculum is “a great deal more than the textbook” (1996, p. 169) and de Marrais and LeCompte describe it as “what happens to students in school” (1999, p. 223). However the complexity of curriculum studies, including explicit and hidden curriculum, and decisions related to curriculum development and implementation, are complex and value-laden. Several theorists offer classification schemas to organize the different curriculum worldviews. These types of organizational frameworks are useful tools in investigating the interdependent relationship between curriculum, pedagogy, teacher beliefs, and practices while placing specific stances within historical and political paradigms.

Schiro’s Curriculum Ideology. Schiro (2008) provides a classification system (Table 2.1) in his text Curriculum Ideology which represents “the range of viable ideological alternatives available to American educators over the last hundred years that have exerted the greatest influence on educators’ practices and aspirations” (Schiro, p. 247).
Table 2.1. Curriculum Framework

<table>
<thead>
<tr>
<th>Schiro (2013)</th>
<th>Scholar Academic</th>
<th>Social Efficiency</th>
<th>Learner-Centered</th>
<th>Social Reconstruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>McNeil (1977)</td>
<td>Academic</td>
<td>Technological</td>
<td>Humanist</td>
<td>Social Reconstructionist</td>
</tr>
<tr>
<td>Fenstermacher &amp; Soltis (1992)</td>
<td>Liberationist</td>
<td>Executive</td>
<td>Therapist</td>
<td></td>
</tr>
<tr>
<td>Posner (1992)</td>
<td>Traditional &amp; structure of the disciplines</td>
<td>Behavioral</td>
<td>Experiential &amp; cognitive</td>
<td></td>
</tr>
<tr>
<td>Zeichner (1993)</td>
<td>Academic</td>
<td>Social Efficiency</td>
<td>Developmentalist</td>
<td>Social Reconstructionist</td>
</tr>
<tr>
<td>Joseph et al. (2000)</td>
<td>Constructing understanding &amp; connecting to the cannon</td>
<td>Training for work and survival</td>
<td>Developing self and spirit</td>
<td>Confronting the dominant order &amp; deliberating democracy</td>
</tr>
<tr>
<td>Ellis (2004)</td>
<td>Knowledge centered</td>
<td>Progressive &amp; Learner Centered</td>
<td>Society centered</td>
<td></td>
</tr>
</tbody>
</table>

Source: Schiro (2013, p11).

Schiro uses the term “ideology” to define the four traditions, defining ideology as “a collection of ideas, a comprehensive vision, a way of looking at things, or a worldview that embodies the way a person or a group of people believes the world should be organized and function” (p. 8). Ideology is not a new term to describe pedagogy. Schiro suggests the existence of political forces behind each, forces which attempt to define the purpose of schooling within the American public school setting and tug on educator beliefs and practices.

Schiro describes four separate ideologies, defining each through its conception of the definition of knowledge, the nature of learning, how the learning should be evaluated, the role of the teacher and student in the learning experience, and what instructional strategies are best
suited to support such learning (2008, 2013). Schiro’s framework also provides historical context, placing significant U.S. educational reform movements in each of the four ideologies.

**Scholar Academic ideology.** The Scholar Academic ideology defines curriculum through a classical, academic discipline-based approach to education. Knowledge, and the manner in which such knowledge should be taught, is defined by the individual academic fields (science, math, etc.). Knowledge as objective reality is interpreted by academic disciplines. Roles within this paradigm are hierarchical in nature. University scholars are the providers of knowledge through research and deep study. The role of the classroom teacher is that of transmitter of knowledge and the students are the recipients of knowledge. In such a scenario, one could argue that the role of public education is to perpetuate the academic disciplines. Teaching approaches within this curriculum tradition are primarily didactic discourse and Socratic discussion and student learning is assessed through objective, standardized assessments.

This paradigm found early roots in the work of the National Education Association (NEA) Committee of Ten report in 1893. Led by Harvard University’s Charles Eliot, the Committee was charged with defining the aim of and designing the structure of American secondary schools. The report recommends dividing knowledge into discrete subject areas (mathematics, science, etc.) with a clear scope and sequence, the basis of which American high schools continue to organize curriculum today. The report also recommends twelve years of schooling, including four years of high school for all students. Addressing the issue of equity, the report requires a common set of graduation standards for all students regardless of ability levels. (National Educational Association, 1894).
The NEA’s influence on the design of public education in the United States continued with the issuance of the *Cardinal Principles* report of 1918 (Department of Interior: Bureau of Education). This committee identifies the aims of American public schools as (1) health, (2) command of fundamental processes, (3) worthy home membership, (4) vocation, (5) citizenship, (6) worthy use of leisure, and (7) ethical character (Department of Interior: Bureau of Education, 1918). The *Cardinal Principles* report built upon the Committee of Ten’s work by further establishing secondary school structures such as the junior/senior high model, the quarter and semester system, and they established the 120-hour standard, or the amount of time each course must meet in order to issue a single high school credit.

Over the following century, the American educational landscape witnessed a recurrence of the Scholar Academic ideology, typically preceded by political events such as the Sputnik launch in 1957 and the issuance of the *Nation at Risk* report under the Reagan administration (Gardner, 1983). Theorists who endorse the Scholar Academic ideology include Ed Hirsch (1987), Allan Bloom (1987), and Chester Finn (Finn, 1999 as cited in Schiro, 2008, p. 37).

**Social Efficiency ideology.** The Social Efficiency ideology suggests that the purpose of schooling is to meet the needs of society by training youth to function as contributing members of that society. The focus in this tradition is on objective reality as is socially interpreted. Schools are viewed as public organizations that serve students and families at the behest of society; the greater society is the client; the students are considered both the products of the public school mechanism and future members of society. This approach suggests that there is a set of knowledge and skills that society deems important and which members of society must possess in order to function in society. Evidenced in writings by curriculum theorists since the early 1900s (Bobbitt, 1918; Tyler, 1949), this view calls for a scientific management approach to
curriculum design (Flinders & Thornton, 1998) with an emphasis on behavioral studies. The focus is on design of the learning environment and how a student interacts with knowledge within the learning through specific instructional stimuli. The role of the teacher in the Social Efficiency ideology is as manager, responsible for establishing the learning environment and ensuring mastery of skills around a predetermined set of standards established by those outside the classroom.

The Social Efficiency ideology has a strong presence within the current U.S. context, beginning with the Committee of Ten and the *Cardinal Principles* report. The *Nation at Risk* report (National Commission on Excellence in Education, 1983), helped to launch the standards-based reform movement that further matured in the late 80s and early 90s under the Clinton administration. The result was the passage of *Goals 2000: Education America Act* by Congress (1994) which called for states to develop outcome based education systems as a means of increasing rigor and equity of access to all students.

In 2001, Congress reauthorized the Elementary and Secondary Education Act (ESEA) naming the legislation *No Child Left Behind* (NCLB). NCLB expanded the role of the federal government in public education through the requirement of annual testing and reporting of academic progress, redefining teacher qualifications, and establishing systemic societal pressures on school accountability. The result today is an unprecedented focus on external school accountability from all levels of government and a profession of educators who have experienced more than a decade of focus on quantitative student outcomes, defined by “scientifically-based” standards and teaching practices measured by standardized assessments.


**Learner-Centered ideology.** The Learner-Centered ideology (Dewey, 1938; Piaget, 1928) focuses on the individual child. It assumes that each child is not a blank slate but comes to school with individual experiences, abilities, interests, and challenges. The role of the teacher is facilitator, tasked with organizing learning while supporting individual students in a process towards self-actualization. Learning is viewed as a social process whereby the learner constructs meaning through interaction with social, physical, and intellectual environments. Rooted in a behaviorist epistemology, the Learner-Centered ideology suggests that it is the teacher’s role to create a constructivist learning environment and then observe and diagnose the needs and interests of the learner in order to effectively facilitate individual growth. However, unlike the outcome based approach represented in the Social Efficiency ideology, learning goals are individualized in a Learner-Centered environment. Curriculum is not standardized but flexible and learner driven, co-created by teacher and learner. Curriculum is not cleanly divided into distinct academic disciplines but is integrated across disciplines and designed to promote deeper understanding with an emphasis on depth over breadth. Teachers are considered to be content generalists with expertise in pedagogical approaches and learning theory. Student learning is evaluated using subjective tools rather than objective, standardized assessments. Assessments are formative and individualized rather than standardized evaluations of a mastery of knowledge and skills.

Learner-Centered ideology has had a consistent presence in the curriculum field for the last hundred years. It has been referred to as Constructivism, Experiential, Humanist and Progressive Education. Roots of the Learner-Centered ideology can be traced back to the early theorists and reformers Locke and Rousseau, and later Dewey. Far less public and political than those of the Scholar Academic and Social Efficiency model, Learner-Centered reform
movements are typically grassroots in nature. These include the Child Study movement of the 1890s, the Progressive Education movement in the first half of the 20th century, the Open Education movement and Developmentalist movements of the latter half of the 20th century, and the Constructivist movement (1990 to present), with earlier beginnings such as Montessori and Reggio Emilia methods (Schiro, 2008). More recent elements of the Learner-Centered ideology are evidenced in curriculum trends such as choice-driven curriculum, inquiry-based instruction and project-based learning. In addition, following over a decade of standardized outcome based education, there has been a recent outcry for growth-based accountability models with a focus on individual student growth. This represents a marriage between the school accountability structures put in place as a result of a Social Efficiency model and a desire to include elements of the Learner-Centered ideology.

**Social Reconstruction ideology.** The Social Reconstruction ideology represents a split among Progressives over the aim of education and the role schools play in shaping future society (Schiro, 2008; Stanley, 1992), and it embraces the political nuance of the word ideology more so than the other three pedagogies. Often grassroots in nature, this ideology views schools as institutions of social and political change charged with the responsibility for creating a new and more just society through the education of our youth. Within this paradigm, there is an inherent assumption that current society is problematic and that schools can, and should, play a role in solving such social issues. Critical educators are typically concerned with hidden curriculum and power relationships within the teaching and learner paradigm. Similar to the Learner-Centered ideology, the teacher’s role is as facilitator of learning, however with an additional emphasis on guiding students towards action. In such an environment, teachers are viewed as agents of social change, and their role is political within the public sphere of schools (Giroux, 1988). Teaching
strategies often include group discussion and learning tasks are problem-based. Sometimes referred to as social justice education, the curriculum in this type of learning environment is intended to be dynamic and action-oriented. The focus is neither on the mastery of knowledge or skills nor on the individual desires of students, but rather on how students use knowledge in order to create a better society. This approach is value-laden and places schools in a position of adopting a moral stance. Social reconstructivist educators are often referred to as critical educators. Critical educators are encouraged to resist other types of pedagogical approaches that are viewed as either oppressive or lacking in focus and purpose (Giroux, 1988).

With power relations playing a key role in the concept of Social Reconstruction pedagogy, reconstructionist approaches are often associated with critical pedagogues such as Paulo Freire (1972), Henry Giroux (1988) and Michael Apple (2004; Stanley, 1992). Ted Aoki describes the actual teacher’s experience as navigating the tension between planned curriculum and implemented curriculum as “indwelling in a zone between two curriculum worlds: the worlds of curriculum-as-plan and curriculum-as-lived-experiences” (Aoki, 2005, p. 163). Following this perspective, Kincheloe (1993, cited by Pinar et al., 2006, p. 770) calls for a view of “teacher thinking” within a social reconstructivist framework (1993, pp. 201-203). Examples of Social Reconstruction schools include the Highlander Folk School founded in 1932 by Mules Horton (Schiro, 2008). Curriculum focuses on social issues and student experiences involve taking social action on real problems, such as violence, hunger, international terrorism, inflation, and inequality.

**The advantages and disadvantages of curriculum theory frameworks.** Schiro’s framework is a helpful tool to understand differences in curriculum theory and to identify specific political forces and reform movements that reside within each ideology. However,
considering the individuality of teacher beliefs and their practices, the use of these frameworks can oversimplify a complex and critical issue as well as place curriculum in neat boxes. Schiro’s research on teacher-life study revealed that teachers often embody multiple and sometimes contradictory pedagogical beliefs simultaneously, as do the reform movements and the curriculum documents associated with each movement. In fact, Schiro’s research includes studies in which teachers conceptualize their evolving pedagogical beliefs over time. He found that teachers and school administrators often embody a “composite of ideologies” (2008, pp. 198-206) within themselves, representing both complimentary and contradictory educational philosophies.

Summary

The study of teacher beliefs resides within and bridges across several discourse communities including teacher formation, teacher knowledge, identity construction and curriculum theory. There is consensus among educational researchers that there is a connection between teacher beliefs and practice. There has been a great deal of research on teacher beliefs among pre-service teachers. However the study among teacher beliefs among experienced teachers has been lacking, particularly how the experienced teacher’s beliefs evolve over time and the implications of teacher beliefs for practice. In addition, while there is considerable research on curriculum theory and pedagogical practices, there is little research on the relationship between curriculum theory and teaching beliefs and practices. In the area of educational leadership and policy studies, research on the history of educational reform movements provides sufficient frameworks with which to examine the underlying curriculum theories and related practices of each movement. However, there is limited research on the impact that these pedagogical approaches has had on the development of teacher beliefs and
teacher practice. Finally, there is little evidence of long term studies examining context and the relationship between context and teaching beliefs and practice.

Chapter Three outlines the methodology for this study including the epistemological perspective and research design for this study on teacher beliefs. I discuss my choices in research designed to address the complexity of teacher beliefs and collect rich data through which I applied both thematic and narrative analysis. I also discuss the role that memory-methodology and metaphor analysis play in the study. Finally I address issues of ethics and credibility for the study before moving into the findings chapters (Chapters Four, Five and Six) and concluding with a Discussion Chapter (Chapter Seven).
Chapter Three: Methodology

Guba and Lincoln (1994) suggest that decisions based on research design should be grounded in the beliefs of the researcher, beliefs that they argue represent specific paradigms or worldviews and are supported by identifiable frameworks of ontology, epistemology and axiology. In the last two decades, the trend towards quantitative, evidence-driven, outcome-based education has dominated the discourse around teaching and learning. In 1999, the U.S. government provided a definition of scientifically based research (SBR) in reading instruction through the federally funded Reading Excellence Act of 1999, as “rigorous, systematic and objective procedures to obtain valid knowledge” and one in which the study “employs systematic, empirical methods that draw on observation or experiment” (p. 2). The definition goes on to describe SBR as it “involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn” and “relies on measurements or observational methods that provide valid data across evaluators and observers and across multiple measurements and observations.” Finally, the definition provides that these SBR strategies must be “accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review” (1999, 2-3). In fact, a search of the twenty-page document reveals thirty counts of the use of the word, implying a singular definition of research from a positivist paradigm.

In 2002, the National Research Council (NRC) published Scientific Research in Education with the intent to clarify the types of research and establish norms for educational research which would effectively drive educational policy. The Executive Summary states, “one cannot expect reform efforts in education to have significant effects without research-based knowledge to guide them. Scientific research in education can shed light on the increasingly
complex and performance-driven U.S. education system” (p. 1). Popkewicz publically criticizes the NRC report as reminiscent of the positivist movement of the early 1920s, calling the report a “manifesto” challenging the Committee’s underlying presumptions about their role in determining educational policy (2004, p. 63). Ironically, in that same year, Michael Patton’s text *Qualitative Research and Evaluation Methods* was published in which Patton suggested that the debate between qualitative and quantitative research within the field of educational research had run its course and had been replaced with debates among qualitative methodologists (2002, p. xxii). In the following years, the market reflected Patton’s prediction. A proliferation of texts devoted to the study of qualitative research emerged (Butler-Kisber, 2010; Creswell, 2007, 2009; Denzin & Lincoln, 2005b, 2008), including an encyclopedia (Given, 2008) and a dictionary (Schwandt, 2007) published by Sage, revealing an increased interest in the field of educational research for qualitative research methods.

The passage of the federal *No Child Left Behind Act* (NCLB) further indicates a preference for quantitative over qualitative measurements of teaching and learning and school improvement. Driven by what Michael Apple describes as the perfect storm, NCLB’s passage coincides with the neoliberal’s agenda seeking a market-driven approach to school reform with the neo-conservative interest in centralized control of curriculum and school accountability (2006, pp. 219-220). This political agenda challenges qualitative data as “non-scientific” and made funding more difficult to attain for studies that employ qualitative research methods (Cheek, 2008, p. 58).

The discourse continues through conference presentations and meetings, as cited in Eisenhart and Towne (2003, p. 31), including the National Academy of Sciences in 2002, the American Educational Research Association (AERA) in 2002 and 2003, the American
Anthropological Association in 2002, and the American Association of Colleges for Teacher Education in 2003. In 2006, AERA publishes the Standards for reporting on empirical social science research in AERA publications emphasizing the use of a positivist approach in educational research (American Educational Research Association, 2006). There has been a call for “collective quantitative proficiency” among educational researchers that targets novice researchers, in particular, with a focus on positivist and post-positivist approaches (Henson, Hull, & Williams, 2010, pp. 233-234).

My professional work is focused on the leadership of curriculum, instruction, and assessment, an area often dominated by quantitative measures. As an administrator, curriculum leader, school consultant, and teacher educator, I have been deeply involved in school improvement within the context of school accountability. This fix it approach is often supported by the positivist approaches to educational research, or the reliance on empirical data to prove that a particular instructional strategy or program is effective as measured by quantitative student outcomes. However, my interest lies in the voices of teachers, voices I would argue that have been marginalized within policy-driven school improvement events. Towards that end, this qualitative study examines teaching beliefs and practices, not through quantitative measures, but through qualitative approaches that focus on the voices of teachers.

**Epistemological Perspectives**

Literature on the exploration of the formation of pedagogical beliefs draws upon a variety of methodologies including narrative (Clandinin & Connelly, 1987; Connelly & Clandinin, 1990; Elbaz-Luwisch, 2010; Elbaz, 1991; Palmer, 1997; Weber & Mitchell, 1996), case study (Bailey, 2000; Britzman, 1986; Goodnough, 2001; Guskey, 2002; Hammerness, 2006; Hargreaves, 1990), phenomenology, ethnography, critical theory (Apple, 1988, 2006, 2009; Giroux, 1988, 2009),
and action-research (Cochran-Smith & Lytle, 1993, 2009; Strong-Wilson, 2008). These methodologies have disciplinary roots in the fields of sociology, anthropology, psychology, philosophy, and literary studies. Studies involving the social context of schools, cultural norms, and organizational structures draw heavily from sociology and anthropology.

The study of teacher formation draws from the field of psychology, particularly in the area of the assimilation of new knowledge, while teacher beliefs related to teaching and learning often reside in the field of philosophy and teacher-lived experiences tend to draw from sociology and literary studies. Recent trends in interpretive studies provide additional perspectives that have led to arts-based inquiry methods including visual, performative, and poetic. My interest is in the interrelationship between the teacher’s beliefs, how the beliefs are formed, and the relationship to their practice.

The ontological and epistemological basis of this study involves an assumption that multiple realities exist and knowledge is co-constructed within social and historical contexts; this study is thus situated outside the positivist and post-positivist paradigms. Qualitative, or interpretive methodologies, are appropriate tools to explore teacher beliefs and how meaning is socially and historically constructed. Creswell defines the purpose of qualitative research as “a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem” (2009, p. 4). Unlike studies conducted within a positivist framework in which the researcher is distanced and maintains a detached objectivity, qualitative studies require a certain degree of personal investment from the researcher. The term *bricoleur* has been used to describe the qualitative researcher. Introduced by Lévi-Strauss in the 1960s, as cited in Denzin & Lincoln (2005a, p. 4), the bricoleur draws from a variety of perspectives. A quilt-maker or a
Jack-of-all-trades, the bricoleur uses emergent design and draws from a variety of tools and methods as the study progresses.

Butler-Kisber (2010) offers a multi-dimensional perspective to qualitative research through an integrated lens of interpretive inquiry, where reality is constructed or co-constructed rather than observed objectively. Butler-Kisber (2010) proposes a new framework for classifying qualitative inquiry in three approaches: (1) narrative; (2) thematic; and (3) arts-informed (p. 8). Narrative studies are concerned with lived stories. Biographic in nature, the narrative research reflects the researcher’s interpretation of the told story (Connelly & Clandinin, 1990). Thematic inquiry uses categorization to analyze across multiple data sets allowing conceptual themes to emerge across participants, cases or contexts (Charmaz, 2006). Finally, arts-informed inquiry assumes that there are multiple ways of knowing and using art, including visual and written text and data analysis or production/portrayal of findings.

My study contains elements of all three approaches. I use both thematic and narrative approaches in my data analysis and employ visual methods in the data collection process. This hybrid analytic approach is frequently used in the study of teacher beliefs and identity. For example, Karen Hammerness combined thematic and narrative analysis effectively in her study examining teacher beliefs and provides vivid illustrations of four individual teachers who struggle to connect their personal beliefs to the practical realities of the classroom, the school and the community (2006). Using visual and written data, Weber and Mitchell (1996) examine the phenomenon of teacher identity and the relationship between teaching practices and personal teaching philosophy. Building upon their earlier research, and citing the work of other researchers including Britzman, the authors investigated the role that childhood memories and early experiences play in the way teachers express their identity. This methodological approach,
with an emphasis on using drawings as a data source, also recognizes and capitalizes upon the common use of metaphors in describing teachers, such as teacher as gardener or as artist.

Research Design

This study was designed to investigate teacher beliefs, how teachers articulate their beliefs, how their beliefs are formed and the teacher’s perception of the relationship between their beliefs and teaching practices. The following question served as the overarching research question for the study: How do teachers articulate their beliefs about teaching and learning and what are the implications for practice? Three sub-questions provided the framework for data collection and analysis: How do teachers account for their teaching beliefs? How do teachers describe how their beliefs are formed? How do teachers relate their teaching beliefs to their perceptions of practice?

Framed around thematic and narrative inquiry methods with elements of arts-based methods, this study focused on teacher leaders within a secondary setting, specifically those in the position to serve as both classroom teachers as well as teacher leaders. Using a combination of written reflections, individual interviews and focus groups, the study was designed to support participants in a process of unpacking their beliefs, coming to an understanding of how their individual beliefs were formed over time and the relationship between beliefs and teaching practices. Table 3.1 represents a Research Design Matrix that shows the relationship between the research question(s), methods, types of data collected and analysis processes (Maxwell, 2005, pp. 102-103). The matrix serves as an organizational framework that provides a focus across various research methodologies spanning discourse communities, including teacher formation, identity construction, pedagogy, curriculum theory and memory construction.
Table 3.1. Research Design Matrix

<table>
<thead>
<tr>
<th>Research question</th>
<th>Data Collection</th>
<th>Data Analysis</th>
<th>Findings Chapters</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do teachers account for their teaching beliefs?</td>
<td>Interview and focus group transcripts</td>
<td>Thematic analysis</td>
<td>Chapter Four: Beliefs</td>
</tr>
<tr>
<td>How do teachers describe how their beliefs are formed?</td>
<td>Researcher observations and memos</td>
<td>Chapter Five: Formation of beliefs</td>
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<td></td>
<td>Individual essays</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Physical objects/visual text</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How do teachers relate their teaching beliefs to their perceptions of practice?</td>
<td>Interview and focus group transcripts. Researcher observations and memos Individual essays Physical objects</td>
<td>Narrative analysis</td>
<td>Chapter Six: Personal narratives</td>
</tr>
</tbody>
</table>

**Study site and participant selection.** I chose to invite participants from Massena High School (pseudonym), a large regional high school which is part of the supervisory union where I have served as Executive Director of Curriculum, Instruction and Assessment. Fifteen (15) teachers were invited to participate in this study; ten (10) chose to participate. All participants were experienced educators with no less than five years as classroom teachers. I chose experienced teachers so that I could work with participants whose careers had spanned enough time to reflect upon changes in their beliefs. I chose participants from this school because my role afforded me ready access to each of the participants.

I anticipated that the nature of this inquiry would require a certain degree of relationship building and trust between researcher and participants (Lawrence-Lightfoot & Davis, 1997). Prior to conducting this study, I had what I believed was a positive and trusting working relationship with the participants. Throughout this study, participants were asked to open up and share their beliefs and in doing so, engaged in a process of questioning their beliefs and practices. However, my professional relationship also presented potential concerns of bias and power relationships between the researcher and participant for which I took steps to address.
This issue is discussed further in the Credibility and Ethics section later in this chapter as well as in the Limitations section of the Discussion chapter (Chapter Seven).

The study participants and Massena High School had experienced significant changes during the previous four years due to a recent state and regional emphasis on secondary school transformation. These changes, while primarily related to systems and governance, were designed to produce a disruption in traditional teaching practices while also inviting changes in the area of curriculum, instruction and assessment. The school leaders aimed to alter the school culture towards a more cross-curricular approach or teaching across multiple content areas. Each of the participants in this study were teacher leaders who had moved into their role recently. Since moving into their new teacher leader positions, this collective group embarked upon a process of leading curriculum development within and across their content areas. They led the school through externally-driven change events, specifically the implementation of new state requirements of personalized learning, flexible pathways and proficiency-based graduation requirements (*Vermont Act 77*, 2013; *Vermont Education Quality Standards*, 2014). In short, these teacher leaders were poised to launch a significant amount of curriculum change within their schools. However, I believed that leading this work without first taking the time to engage in reflective discourse about individual teaching beliefs, would result in a predictable set of results; this was a phenomenon I had witnessed in my career, that is, the barriers that occur when teachers experience significant curriculum change events without taking the time to explore and reach consensus on pedagogical beliefs.

As I discuss in Chapter Seven, the participant selection was based on ease of access and driven by my prior trusting relationship with the participants, as well as their willingness to take part in the study. Other than length of time in the education profession, there were no other
criteria for participating. I acknowledge that the pool of participants does not reflect a great deal of diversity. Of the ten participants, two are men and eight are women. All participants are white/Caucasian. Finally, while the participants reported that they were born and raised in several U.S. states, all but one attended some form of teacher education program and all worked the majority of their careers in schools in Vermont. In my Discussion Chapter (Chapter Seven), I address potential limitations to my participant selection process and discuss potential ways I would expand participation in future research.

**Data Types.** Data collected and analyzed for this study included qualitative interviews, focus groups, visual and written data and researcher memos. Raw data included written transcripts of audio recordings, digital photographs, emails, reflective essays, *Curriculum Ideology Inventories* (Schiro, 2013) and a researcher journal. Data, primarily in the form of direct quotes, are cited in this paper using the following conventions: (Participant pseudonym, data type, date), for example (Bethany, Object-Memory Focus Group, 1/8/14). Data types are labeled as: Interview, Object-Memory Focus Group, Curriculum Ideology Focus Group, Email, and Object-Memory Reflective Essay. Data drawn from my own research journal is also cited using this convention. Visual data, including digital photographs, are cited using captions which identify the participants and their objects. Tables and graphs are used to graphically display curriculum inventory results (Appendix I, p. 206).

**Qualitative interviews.** The study began with individual interviews using a semi-structured interview guide designed to collect background/profile information about participants, including personal experiences in education as young learners, their reflections about their teacher education programs and details of their career pathways and teaching assignments. The interviews were conducted over the course of four weeks in December 2013. I worked with each
participant to identify a comfortable time and location. All interviews were held onsite in quiet areas including conference rooms, offices and empty classrooms. I asked each participant to plan for up to 1.5 hours for the interview. Some ended earlier while others opted to stay later, but most ended within 90 minutes. Table 3.2 represents the interview schedule. The Interview Guide (Appendix C, p. 197) was designed to provide a semi-structured framework while allowing for some flexibility to probe more deeply into each individual’s background, pedagogical beliefs and perception of practice (Creswell, 2009, p. 182; Patton, 2002, pp. 343-344). Each interview was audio taped via two digital recorders while I took written notes electronically and in a notebook.

Table 3.2. Interview Schedule

<table>
<thead>
<tr>
<th>Participant</th>
<th>Interview Date/Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethany</td>
<td>12/11/2013; 12:30 PM</td>
<td>Library conference room</td>
</tr>
<tr>
<td>Gail</td>
<td>12/5/2013; 1:30 PM</td>
<td>Gail’s office</td>
</tr>
<tr>
<td>Mark</td>
<td>12/5/2013; 2:45 PM</td>
<td>My office</td>
</tr>
<tr>
<td>Patrick</td>
<td>12/11/2013; 1:30 PM</td>
<td>Library conference room</td>
</tr>
<tr>
<td>Lisa</td>
<td>12/11/2013; 8:30 AM</td>
<td>My office</td>
</tr>
<tr>
<td>Fran</td>
<td>12/13/2013; 12:30 AM</td>
<td>Library conference room</td>
</tr>
<tr>
<td>Phoebe</td>
<td>12/13/2013; 11:30 AM</td>
<td>Phoebe’s classroom</td>
</tr>
<tr>
<td>Hannah</td>
<td>12/6/2013; 11:30 AM</td>
<td>Hannah’s office</td>
</tr>
<tr>
<td>Sarah</td>
<td>12/20/2013; 11:00 AM</td>
<td>Library conference room</td>
</tr>
<tr>
<td>Samantha</td>
<td>12/6/2013; 8:30 AM</td>
<td>Samantha’s office</td>
</tr>
</tbody>
</table>

**Focus groups.** Following the completion of the individual interviews in December 2013, the participants took part in two focus groups in January, each within one week of the other (January 8 and January 15, 2014). In this study, the two focus groups were designed to provide a social context in which the participants shared their individual beliefs and the personal and professional forces that helped to shape those beliefs and their perceptions of practice. Focus groups provide an environment that allows for group dynamics where participants share lived experiences through a process of individual reflection and social construction of meaning.
development. Unlike the individual qualitative interview, a key element of focus groups is social interaction among participants. These interactions cause participants to explore and clarify their perspectives to a larger audience, choosing words to convey meaning and digging deeply to articulate their thoughts. Kamberelis and Dimitriadis (2013) found that focus groups were often found to be effective in exploring particularly sensitive subjects. I wanted to explore the potential role that focus groups could play in a study of teacher beliefs, a topic which could have been very personal for some or all of the participants. In addition, I believed that a less structured focus group would provide an opportunity for a different relationship between the interviewer and the interviewees because they would play a greater role in asking the other participants clarifying and probing questions, potentially causing for deeper reflection.

In qualitative research, focus groups have their disadvantages and advantages. One disadvantage is the unpredictability because the researcher has less control over the direction of a group discussion. Some participants feel more or less comfortable speaking about topics within a focus group environment, causing the researcher to consider which topics may or may not be appropriate for a focus group setting. Individual responses are often subject to group think, where an individual’s response is unduly influenced by others’ responses. Participants may feel compelled to reach consensus around a topic rather than share individual perspectives. Some personalities in the room may also dominate the conversation. Facilitating or moderating a focus group requires thoughtful planning, skills and observations; note taking and transcribing also proves challenging (Kamberelis & Dimitriadis, 2013; Liamputtong, 2011).

Sawyer (2003) examines social interaction within social sciences research methods as a form of “conversation research” or “conversation analysis.” He describes conversation analysis as based on the view that conversation is “collaboratively improvised” or a “joint
accomplishment of shared meaning in iteration” (p. 47). Liamputtong (2011) states that within the focus group setting, “symbolic interactionism postulates that individuals do not carry out the process of making sense of social phenomena in isolation. Rather the process occurs in discussion and interactions with others” (2011, p. 16). Unlike individual interviews, participants were provided with an opportunity to hear their colleagues’ stories and ask and respond to questions. This pushed the individuals to dig more deeply. The focus group format allowed the participants to juxtapose individual beliefs and perceptions with others’ beliefs within a social context (Patton, 2002, pp. 385-390). I believe this process allowed for greater depth in participant responses through a social construction of individual memories and beliefs.

Each focus group was designed around specific trigger mechanisms designed to elicit rich responses. The Object-Memory Focus Group employed a combination of visual methods and an open-ended writing prompt; the Curriculum Ideology Focus Group involved a more structured writing prompt and graphing exercise.

**Object-Memory Focus Group.** This focus group was held on January 8, 2013, and was designed around a framework used in a prior study (Cole, 2011). I employed the use of visual methods, specifically the use of physical objects, in order to create an environment in which participants could dig more deeply into personal accounts of their evolving beliefs. The term *Object-Memory*, as used in this study, applies to the use of physical objects as a trigger to elicit memories embodied within each participant (Gillies et al., 2005; Labajo, 2003; Mitchell & Weber, 1999; Narvaez, 2006). Similar to photo elicitation, a visual method that has been used extensively to solicit memories and evoke emotions (Harper, 2002), I used objects as a trigger for participants to reflect upon their beliefs, a method I had explore in a prior study (Cole, 2011). Crawford, Kippax, Onyx, Gault and Benton (1992) explores the use of memory work to examine
how women constructed their emotions using a focus group format. In this study, I applied a similar approach. By using visual methods in a focus group setting, I employed group memory-work in order to interrogate the relationship between memory and beliefs using self-chosen objects as the initial trigger for memory production, reflection and discussion. Prior to attending the first focus group, teachers were asked to choose one object that represented their teaching beliefs and write a short reflection explaining why they chose the object. Sawyer used a similar process in his study employing objects in improvisational games (2003, p. 159). My intent was to allow participants the time, space and structure to initiate individual reflection prior to entering into a group study environment. My participants provided essays to me electronically in advance, and then brought the object to the focus group. The process of choosing only one object to serve as a physical representation of intangible belief sets caused the individual to reflect more deeply on their beliefs through visual representation and to prioritize those beliefs.

I used a semi-structured Focus Group Interview Guide to facilitate (Appendix D, p. 198). I set up two digital recorders in the room, and when participants entered, I asked them to produce their object and I took digital photographs of each object with the exception of those that revealed personally identifiable information (Appendix G, p. 202) such as photographs of the participant or their family members. I asked participants to take turns sharing their object and describing their reasons for choosing it during the Focus Group. Some chose to read their essay; others spoke more informally. Following each presentation, I asked if any of the participants had questions or comments. I also asked my own follow-up questions to clarify a participant statement or probed more deeply. My questions were often derived from my experience with each participant in the individual interviews. For example, during the focus group discussion, Mark conferred the critical need for teachers to make connections with individual students. I
prompted him by asking, “Who did that for you?” and invited him to share with the group his own history as a struggling student and the important role that mentors had played in his life. Similarly, when Phoebe described her choice of picture books, she talked about supporting marginalized student populations and her use of the word *equity*. Her individual interview had made me aware of her struggles to fit in as a student so I was then better prepared during the focus group to prompt her to elaborate on her use of the word *equity* to tease out one of her core beliefs that she had articulated in her interview.

*Curriculum Ideology Focus Group* (January 15, 2014). This focus group was organized around Michael Schiro’s *Curriculum Ideology* research (2008, 2013). In his study of pedagogical beliefs, he examined how teacher beliefs change over time and how specific influences contribute to formation of beliefs in experienced teachers. Schiro’s studies involved asking participants to complete a *Curriculum Ideology Inventory* (Appendix F, p. 200), charting their beliefs over time against his four ideologies: Scholar Academic, Social Efficiency, Learner-Centered and Social Reconstruction (2013, pp. 248-255). These take place within six focus areas: purpose, teaching, learning, knowledge, childhood and evaluation. Table 3.3 represents my synopsis of Schiro’s description of the six focus areas for each ideology (2013, 15-198). Participants responded to specific statements in each of the six focus areas, assigning a score from 1-4 with a score of 1 indicating a strong agreement with the statement, while 4 represented the least agreement. Scores were then placed on a graphing tool. This revealed the degree to which participants aligned with the four ideologies on each of the six focus areas.
After the participants completed the surveys, I used a semi-structured focus group interview guide (Appendix E, p. 199) to facilitate individual reflections on their results and the degree to which the results matched or conflicted with their own perception of their beliefs.

Below is an example of one participant’s reflection:

When I do these [surveys] I’m always afraid that I’m not going to be where I want to be (group laughter). I really want to be in a couple of categories, but I’m actually not in any of them. It seems that I’m all over the place except for Social Efficiency. It appears that I care a great deal about letting our society define and it doesn’t sit well with me–having our society define us and our students or define what is important with regards to our students. I really like some of these words. (Sarah, Object-Memory Focus Group, 1/8/14)
After participants shared their own results and reflections, the group moved into an open-ended discussion about the experience. Topics included the limitations of the inventory tool, the role that context may have played in the results and the implications for practice and leadership.

Transcripts. While I recorded written notes on a laptop, each interview and focus group was audio taped using two digital audio recorders. Prior to each interview and focus group, I used Google Docs to build the initial platform for the transcript, pre-filling the document with the name of the participant, date and time and all questions. During the interview or focus group, I used the Google Doc to fill in participant responses while writing notes on the side. Where I veered from my interview question or asked additional questions, I made those revisions.

Between the last individual interview on Dec 20, 2013, and the first focus group on January 8, 2014, I transcribed each interview in order to be better prepared to facilitate the two focus groups. During the transcription process, I listened to the audio files and revised the electronic documents to reflect verbatim transcripts. Each transcript took approximately two to three hours to transcribe fully. I included any noticeable pauses, laughter or emotional responses such as tearing up. Wherever possible, I recorded when a participant looked up, down, left or right. Below is an example from an individual interview transcript and a focus group transcript.

I loved school for the most part (pause). I was a fairly (pause) -- I was a good student, and I would say a fairly docile student, although definitely did question some things ... (pause) ... and had no problem speaking my mind in that way (pause) … confident, at ease. (Gail Interview, 2013)

One thing I was thinking was a little bit of a cynical one. But it was a slot machine (laughs, group laughter). And the idea was that I’m always really hopeful and like putting
stuff in (mimics putting coins in a slot machine, laughs) and hoping something comes out (group laughter). And once in a while you get lucky and a big reward comes out, but most of the time I’m think, “oh God, what am I doing?” but I felt like that was a little bit too cynical. And I don’t know (pause) what else I would have chosen? (Bethany, Object-Memory Focus Group, 1/8/14)

Through a process of member checks, participants were asked to read through their data and indicate any areas they felt could be removed or additional information they wanted to add. For example, one participant requested that I remove personal information she shared about her parents. Several others asked if they could add additional detail to further explain their stories. I respected each request.

**Researcher memos.** Memoing is the act of recording reflective notes about what the researcher is noticing regarding the data. Memoing occurs throughout the process from designing the research to data collection and analysis. Memoing is more than just observation but can serve as a data analysis tool. I knew that my topic of study would cause me to reflect upon my own belief systems and how my beliefs evolved over time. I maintained a journal to record reflective memos (Butler-Kisber, 2010, p. 20). My professional and personal experiences provided a lens that allowed me to construct meaning from the educational issues discussed by the participants. Subjectivity and partiality played a role in the inquiry process. I used memoing, recording any personal or professional biases that I encountered throughout the process so that I could distinguish between inferences and conclusions drawn directly from the data rather than biased assumptions drawn from my own personal and professional experiences (Butler-Kisber, 2010).
Throughout the study I recorded notes to myself about areas for further inquiry, potential relationships across data, particularly relationships between categories. For example, I included a note in my journal about the relationship between the two types of belief statements: core beliefs and curriculum stances or those expressed prior to and those expressed following the group’s work with Schiro’s framework. Below is an excerpt from my journal where I identified a topic as a potential area for future exploration:

When asked about their teaching beliefs, participants first listed basic or core beliefs. When engaged in an exercise looking at beliefs against Schiro's framework of Curriculum Ideology, they connected their core beliefs to curriculum theory. What is the relationship between articulated "core beliefs" and pedagogical beliefs rooted in curriculum theory? (Researcher memo, 2/3/14)

Memoing provided a space that I allowed me to conduct ongoing analysis throughout the study. I used the journal to record my own thoughts and mark notes that contributed towards analysis.

**Data Analysis.** Data analysis in this study came in two forms: (1) thematic inquiry using the constant-comparison approach; and (2) narrative inquiry using a case-synopsis approach (Butler-Kisber, 2010). I designed the study to employ both approaches in order to capitalize on their advantages. Thematic inquiry allowed conceptual themes to emerge when looking across multiple data sets while narrative inquiry provided richness by focusing in-depth on three personal narratives.

**Thematic analysis.** Thematic inquiry uses categorization to analyze across multiple data sets with key issues, recurring topics and themes emerging across participants or contexts. I employed the *constant comparison* approach (Charmaz, 2006) which involved sorting and
resorting data over a period of months in order to arrive at the conceptual themes that are outlined in the Findings section of this study. Rooted in grounded theory, thematic inquiry allows the researcher to see relationships across categories and develop conceptual themes (Charmaz, 2006). Patterns are identified through a rigorous process of data familiarization, data unitizing, coding, and pattern and then theme development and revision. Categories are expanded and collapsed until saturation occurs. Rather than seeking out answers, the researcher uses thematic analysis to allow patterns and themes to emerge from raw data through a process of inductive reasoning (Maykut & Morehouse, 1994). This results in a series of categories which emerge holistically (Strauss and Corbin as cited in Patton, 2002, pp. 489-490).

I conducted the analysis electronically, using a combination of Microsoft Word and Goggle Docs. The first step involved unitizing the data and assigning code names. I began with the interview transcripts. Working with the electronic files in Goggle Docs, I read through each of the ten interview transcripts twice in the order they were collected. I used the comment tool to record remarks along the right margin. Comments included words, phrases or questions. Once I completed each interview transcript twice, I applied the same strategy to the two focus group transcripts. This process allowed the notes to emerge from the data naturally, again without a preconceived notion of specific pre-defined categories. For example, in response to questions related to factors that influenced the teacher’s beliefs, I recorded the term family if the participant discussed a family member, mentor if they identified someone who served in that role. Figure 3.1 shows an example of data analysis using the comment tool in Google Docs.
After completing this process, I returned to the data a third time, focusing then with more depth on each participant, reading an individual interview and then moving over to the focus group transcripts, isolating the individual participant’s responses within each focus group. I continued to comment in the margins of the transcripts.

Using the comments I moved to categorizing and coding the data. I identified specific categories, examining the relationships, building early lists of potential categories and sorting data within each category. I used major categories and subcategories. Examples included:

(B) Beliefs – articulation of beliefs

(BR) Relationships

(BSM) Teaching as a social mission

(BI) Individual – valuing the individual child

I continued to sort data and engaged in a process of expanding and collapsing categories. Data that did not fit neatly into categories were set aside as outliers. For example, I found a great deal of data that fell under the category (I) Influence and sub-category (ISI) Teacher as Student. Exploring the textual data as well as my observations of paralinguistic communication, evidence emerged around the category (TE) Emotion of Teaching. As the categories collapsed and
expanded, the TE data moved into an outlier category. Throughout the analysis process, I returned to the outlier data to explore relationships with the emerging categories. Appendix H (p. 203) displays a full list of initial categories and subcategories.

I developed *Rules of Inclusion* for each of the categories. For example, data included in the rules of inclusion were instances where the participant described a personal or professional teaching belief either by explicitly naming it among a list of beliefs, by relaying a story or memory or through visual data within the discussion about his/her individual teaching beliefs. Data encompassed in the rules of inclusion came in response to a direct question or within a discussion about influences; the participant described a specific influence (person, relationship, event or environment) they believed had some impact (positive or negative) on their teaching practice. The following tables represent rules of inclusions for Beliefs (Table 3.4) and Formation of Beliefs (Table 3.5).

Table 3.4. Rules of Inclusion: Beliefs

<table>
<thead>
<tr>
<th>Categories &amp; Subcategories</th>
<th>Rule of Inclusion</th>
<th>Conceptual Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>connecting with kids, relationships; student interactions; classroom community; interdependence; individualized learning - personalized learning; differentiated instruction, multiple intelligences, valuing the individual; student choice, student voice, pathways; independence; student reflection</td>
<td>Refers to talk about making connections and valuing the individuality of each student and the student’s growth.</td>
<td>Connecting</td>
</tr>
<tr>
<td>teaching as giving back - giving back to the community, giving back to the profession, affecting student lives; service learning in the classroom, being part of something bigger, affecting/impacting others; equity – equity of access to instructional opportunities, fairness in the classroom, school as a social equalizer</td>
<td>Refers to talk about giving back, or teaching as a social mission, and incorporating service learning into their teaching.</td>
<td>Giving back</td>
</tr>
<tr>
<td>habits of mind/learning dispositions - life skills, transferable skills, learning outside of school, relevance, authentic learning, creativity, integrated learning, inquiry, active learning</td>
<td>Refers to talk about the value for learning outside of the academic discipline.</td>
<td>Learning outside of the academic content</td>
</tr>
<tr>
<td>high expectations equals respect; setting clear expectations – clarity of learning goals academic rigor - defining rigor in relation to external standards, defining rigor in relation to expectations of individual effort and quality of work</td>
<td>Refers to talk about the value for holding students to high standards and academic rigor.</td>
<td>Setting high expectations</td>
</tr>
</tbody>
</table>
Table 3.5. Rules of Inclusion: Formation of Beliefs

<table>
<thead>
<tr>
<th>Categories and Subcategories</th>
<th>Rule of Inclusion</th>
<th>Conceptual Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>descriptors of self as student - strong student, good student, struggling student, lazy student, bored student, humiliated student, misunderstood student; positive childhood learning experiences - was challenged, someone set high expectations, someone cared about me, positive student identity - was successful, positive relationship with a teacher or teachers, teacher or coaches who supported them; negative learning experiences in k-2 setting; was missing something; was not respected; was humiliated; was not challenged; poor student identity-struggled, negative interactions with a teacher.</td>
<td>Refers to talk about the participants’ experiences as a student.</td>
<td>Establishing beliefs through childhood schooling experiences</td>
</tr>
<tr>
<td>childhood family – parents and other members, valuing education; parents, other family members as teachers; parents as role models; socioeconomic status; current home life – being a parent; being a community member; personal relationships; parents as educators, parents as mentors</td>
<td>Refers to talk about influences drawn from their personal life.</td>
<td>Expanding upon beliefs through personal relationships</td>
</tr>
<tr>
<td>professors in teacher prep program(s); quality of experience; positive experience – was a fit for emerging beliefs and teacher identity; negative experience - didn’t fit beliefs, didn’t challenge; neutral - wasn’t overly formative; traditional vs. non-traditional teacher prep route</td>
<td>Refers to talk about experiences in formal post-secondary learning prior to and during their career.</td>
<td>Challenging beliefs in teacher education programs</td>
</tr>
<tr>
<td>formal mentors - assigned colleague mentors, self-selected colleagues as mentors, teacher seeks out mentoring</td>
<td>Refers to talk about specific individuals who served as a mentor to them professionally.</td>
<td>Supporting beliefs through mentoring</td>
</tr>
<tr>
<td>school structures – school structures, environments that support beliefs; structures, environments that serve as barriers externally driven change events; education legislation – legislation that serve as leverage points - match beliefs and support the work, legislation that serve as barriers or distracters; school or district initiatives; changes in community demographics; professional learning; professional development (school initiated), coursework (self-initiated), colleagues, research: multiple intelligences, differentiated instruction and backwards design and format teaching</td>
<td>Refers to talk about events or environments within the professional context.</td>
<td>Refining beliefs within professional contexts</td>
</tr>
</tbody>
</table>

*Concept mapping.* I used concept mapping to analyze the data further and to move from descriptive categories to conceptual themes. Concept maps are used in qualitative research in several ways. They can be applied to design research, analyze data or present findings. Daley (2004) examined the use of concept maps in qualitative research and stated that while qualitative transcripts present data in a linear order, concept maps allow us to look at data through the lens of relationships, “concept maps created from interview transcripts allows the researcher to probe the human cognitive structures and then to represent these structures by linking concepts within a
framework of propositions” (2004, p.5). Mapping helped me to look for relationships across data sets, set aside outlier data, connect findings to the study’s research question and sub-questions and identify questions for potential future research. Ultimately, this process allowed me to move from more descriptive categories to conceptual themes. I used a specific concept mapping software, Mindmaple (Mindmaple.com). Using Mindmaple software, I was able to build maps in layers based on each of the sub research questions. I also built a map to store metaphors participants used to describe their beliefs or influences. The two maps were connected not only allowing me to view relationships across data, but also to see the connection between and among the categories. The concept maps also permitted me to bridge emerging categories with visual data from the Object-Memory Focus Group. Figure 3.2 and 3.3 are examples of some of the concept maps that developed during data analysis.

![Figure 3.2. Concept Map: Beliefs](image-url)
Using concept mapping, I developed a set of conceptual findings described in the Findings Chapters (Chapters Four, Five and Six). I identified a number of themes considered as outliers but linked through the conceptual findings, including the participant’s use of metaphors, statements about the purpose of public schooling and the role of emotion in teacher formation. These findings resided within the data sets in each section, and I accessed the metaphor data within my narrative analysis. Full versions of all maps used in my data analysis can be found in Appendix J (p. 209).

**Narrative analysis.** Narrative studies are concerned with lived stories. Rooted in several disciplines within the social sciences, narrative inquiry comes in many forms, including life history, narratology and portraiture, among others. Narrative is an effective tool in exploring the...
complexities of human experience, comprising teaching and learning. Narrative inquiry is a useful approach to examining teacher knowledge, identity and beliefs. It is a common tool used in understanding the individual teacher’s story, how identity is constructed (Connelly & Clandinin, 1990) and how knowledge is socially constructed (Dewey, 1938). “Teachers and learners are storytellers and characters in their own and other's stories” (Connelly & Clandinin, 1990, p. 2). Nespor and Barylske (1991) use narrative to examine teacher beliefs and the formulation of self. While thematic inquiry seeks out commonalities across cases, it also strips away context. Narrative inquiry looks with more depth at individuals, their experiences and how they draw meaning from their experiences:

Narrative records human experience through the construction and reconstruction of personal stories; it is well suited to addressing issues of complexity and cultural and human centeredness because of its capacity to record and retell those events that have been of most influence on us. (Webster & Mertova, 2007, p. 1)

Bruner (1994) examines narrative through the lens of autobiography, or self-narrative, exploring how participants tell the stories of their lives and ultimately use a constructivist approach for expressing their own narratives:

I believe that the ways of telling and the ways of conceptualizing that go with them become so habitual that they finally become recipes for structuring experience itself, for laying down routes into memory, for not only guiding the life narrative up to the present, but for directing it into the future. I have argued that a life as led is inseparable from a life as told, or more bluntly, a life is not "how it was" but how it is interpreted and reinterpreted, told and retold. (p. 36)
Webster and Mertova (2007) explore the use of critical event narrative analysis within narrative inquiry, “narrative is an event-driven tool of research ... specific events are key determinants in how we recall our life experiences ... a critical event as told in a story reveals a change in understanding or worldview by the storyteller” (2007, pp. 71-73). Throughout the study, participants called upon memories of particular events. In some cases, participants identified specific turning points in their lives which influenced the development of their beliefs.

My goal in moving beyond thematic analysis and including narrative analysis in this study was to strengthen the study’s thematic findings by moving beyond common themes and looking at the richness found in the development of individual stories with thick descriptions (Connelly & Clandinin, 1990; Elbaz, 1991). I used thematic analysis to explore teacher beliefs and the formation of beliefs and narrative analysis to explore how teachers relate their teaching beliefs to their perceptions of practice. I began my narrative analysis with a selection process. I have great respect for each of the participants; each of the participants had a compelling story. Selecting three participants upon which to build individual personal narratives was challenging. I began the selection process by returning to the data. I re-read each individual and focus group interview and listened to the audio tapes. Free from the task of looking for patterns and themes, I immersed myself into each life story as expressed by the participants. I examined the way that each participant reflected on their beliefs, the influences (events, people) that they attributed to the development of those beliefs and their statements about the connection between beliefs and practices. I looked at language around plot, including any turning points identified by participants and developed a narrative beginning with an introduction of each participant in their current role. I then moved back to their early years, and following a chronological life storyline and ending with the participant’s statements about current beliefs. I selected three participants—
Samantha, Bethany and Lisa—for whom the data provided rich detail of character and plot and contained effective and illustrative use of metaphors (Table 3.6).

Table 3.6. Personal Narrative Metaphors

<table>
<thead>
<tr>
<th>Participant</th>
<th>Visual Text</th>
<th>Metaphor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Samantha</td>
<td>Photograph, plane</td>
<td>Journey</td>
</tr>
<tr>
<td>Bethany</td>
<td>Kaleidoscope</td>
<td>Looking outward; perspective</td>
</tr>
<tr>
<td>Lisa</td>
<td>Pocket Mirror</td>
<td>Reflection; looking inward</td>
</tr>
</tbody>
</table>

Once the three participants were selected, I returned to the audio recordings and listened to participant voices, focusing on how the participants conveyed their stories in the interview and focus groups. I explored how the participants conceptualized themselves, their beliefs, how the beliefs were formed and their perceptions about the relationship between their beliefs and their practices. I examined the visual data and the written essay, both provided at the Object-Memory Focus Group. Finally, I reviewed the participant’s completed Curriculum Ideology Inventory.

The resulting personal narratives (Chapter Six) were developed using ghostwriting, which Carl Rhodes (2000) describes as a (re)presentation of data, defined as both a presentation and a representation (p. 515). Rhodes suggests that researchers produce interpretations of the world in which their participants inhabit; ghostwriting serves as a means of understanding research that “enables researchers to acknowledge their role in the production of textual representations of their research participants” (p. 511). As such, interpretation plays a role in this narrative approach as researchers make subjective choices about how the participant experiences are (re)presented. Rhodes cites Richardson (1992), “no matter how we stage the text, we—the authors—are doing the staging. As we speak about the people we study, we also speak for them. As we inscribe their lives, we bestow meaning and promulgate values” (p. 513).
In consideration of the participant’s expression of her self-narrative, including critical events and the use of metaphors, I developed three narratives to explore the participant’s perception of practice as it relates to their teaching beliefs. I discovered instances where the participants expressed that their practices matched their beliefs and examples of where the two did not coincide and explored the why of each scenario. The narratives represent each participant’s interpretation of her own experience, including exploring teaching beliefs, how the beliefs were formed and ultimately how the participants related their teaching beliefs to perceptions of practice.

Due to the emphasis on chronology in each of the narratives I decided to develop narrative structures based on the participants’ key life events, or what Creswell describes as “life course stages” (2007, p. 54). The narratives follow a temporal framework reflective of how participants relayed their experiences and how each subsequent series of experiences contributed to the development of their beliefs. The narratives include plot events, including those occasions identified by the participants as formative experiences, and in some cases, explicitly expressed as turning points in the formation of their beliefs. The narratives also included character with each participant serving as the central character in her own life story. Further description of the narratives and how they were formed are included in the Personal Narrative Chapter (Chapter Six).

The Role of Memory

Memory and memory work played a significant role in the design of this study. Teacher beliefs and identity are formed over time; the result of a series of events, the memories about those events and the meaning the participant makes of those events contribute to identity construction. Memory work as a method of inquiry is attributed to the work of Frigga Haug
The epistemological orientation of memory work assumes that meaning is socially constructed. It assumes that reality and knowledge production are subjective and therefore memory is subjective in nature. Memory is both the knowledge itself as well as an active process by which the knowledge is constructed. The memory also has the potential to be highly malleable in order to suit the purpose of the moment and help the individual make meaning of the event’s relationship to other events within their existing framework of understanding.

Memory work does not differentiate between the teacher participant and the memory itself. In fact, within a study of identity, the line between the two is largely indistinguishable. The term *nostalgia* in teacher studies is often associated with warm memories inside a context of a less ideal current state, or a sense of something positive now lost (Goodson, Moore, & Hargreaves, 2006). However, the use of the broader term *memory* allows exploration of a range of emotions, both positive and negative, and hence has a higher degree of usefulness in examining teacher beliefs, teacher formation and teacher identity (Mitchell & Weber, 1998, 1999; Weber & Mitchell, 1996).

Teacher story, teacher narrative, life story and life history (Connelly & Clandinin, 1990), are all biographical approaches interrelated with memory studies, use memories as a means of self-reflection and self-construction (Grumet, 1990; Haug, 1987; Radstone, 2000), and are often rooted in teacher stories (Strong-Wilson, 2008). Teacher narrative is interrelated with memory studies, especially memory as transformation, or memories as a means of self-reflection and self-construction (Grumet, 1990; Haug, 1987; Radstone, 2000). Connecting narrative to beliefs, Nespor (1987) describes belief systems as “loosely-bounded systems with highly variable and uncertain linkages to events, situations, and knowledge systems” (p. 321). Nespor found it likely that a "crucial experience or some particularly influential teacher produces a richly detailed
episodic memory which later serves the student as an inspiration and a template for his or her own teaching practices” (1987, p. 320). If prior experiences and the way we understand those experiences play a role in the development of our beliefs, then memory and memory work are a critical element in the exploration of teacher formation of beliefs.

Drawing upon a prior study in which I combined memory methodology with visual methods (Cole, 2011), I worked with teachers to solicit their teaching beliefs, their perception of how those beliefs were formed and how teaching beliefs relate to practice. The term Object-Memory, as used in this study, applies to the use of physical objects as triggers within qualitative research processes. Similar to photo elicitation, Object-Memory involve the use of a physical prompt within a qualitative interview setting as a means of digging more deeply into the subject (Gillies et al., 2005; Mitchell & Weber, 1999). In this case, the use of the physical objects, brought to the interview by the participants, was intended to act as a trigger for specific memories embodied within each participant (Labajo, 2003; Narvaez, 2006). Crawford, Kippax, Onyx, Gault, and Benton explore the use of memory work to examine the way in which women constructed their emotions using a focus group format (1992). In this study, I applied a similar approach using group memory work in order to interrogate the relationship between memory and teachers’ pedagogical beliefs using self-chosen objects as the initial trigger for memory production, reflection and discussion.

Memory also informed my observation notes and my data analysis. Throughout this study, I observed the degree to which memory played a key role in participants’ articulation of their beliefs, the factor that influenced their beliefs and how their beliefs were actualized in practice. When asked about influences, participants consistently drew upon memories from childhood and throughout their career or what Nespor describes as “episodic storage” (1987, p.
This suggests the existence of a relationship between memory and the way teachers make sense of their beliefs, and further, how beliefs relate to practice. This proved true within the scope of my study where memory played a role in participant articulation of beliefs; participants shared stories from childhood as well as constructed memories in the course of sharing personal stories about their own professional experiences. I observed each participant’s shared story as a way of drawing meaning from the experience; they then recounted these memories with great clarity and without hesitation and made explicit connections to their own practice.

**Metaphor Analysis**

Metaphors are often present in qualitative research, particularly in narrative inquiry. Narrators often use metaphors as a literary technique to simplify complex ideas, to organize ideas or to provide rich illustration to a story. Dyson and Genishi (1994) suggest that “storytellers often craft the sensual and metaphoric, rather than the literal, properties of speech, as they work to convey their feelings about their evaluation of the world” (p. 4). Miller and Fredericks (1988) examine the use of metaphors in qualitative educational research by analyzing the use of metaphors in which participants were asked to discuss what makes an effective teacher and an effective school. They find frequent use and varied levels of awareness about their use of metaphors among participants. Despite the spontaneous nature of the use, Miller and Fredericks suggest that metaphors are a tool for “meaning making” and that they are “purposeful modes of expression whose truth-value functions, while not literal, do reflect accurately how people think about their lives” (p. 269).

In her study of the formation of teacher identity among pre-service teachers, Alsup (2006) asked student teachers to use written and visual metaphors to represent their teaching philosophies. She connects the use of metaphors with the use of narrative as a means to uncover
teaching beliefs; each method asks participants to explore beliefs using a process of reconceptualization, “similar to narratives, metaphors are a way in which human beings create their identifies and explain these identities to themselves and others ... additionally narratives can often be metaphorical ... and metaphors can sometimes provide links between images and narratives” (Alsup, p. 189).

Thomas and Beauchamp (2011) explore the use of metaphors in the teacher’s development of a professional identity. They suggest that the use of metaphors has the potential for new and practicing teachers to explore their own formation within a reflective practice of self-study. They cite Gillis and Johnson (2002), “because they [metaphors] reveal our educational values, beliefs and principles, they contain information essential to our growth as professionals” (2011, p. 763).

Ben Said (2013) examined the role that anecdotes and metaphors play in narrative inquiry of teacher identity by focusing on how identities are explored and revealed within teacher personal recounts. He proposed that:

While narratives constitute a key element in recounting teachers’ subjectivities, experiences and insights, anecdotes and metaphors are equally important analytical tools to understand how teachers envision their imagined identities and how they conceive their roles in their communities of practice. (Selim, p. 11)

However, Ben Said goes on to suggest that the use of metaphors has limitations, agreeing with Thomas and Beauchamp when they suggest that metaphors are “culturally bound” (p. 763) and metaphor elicitation should be one of many analytical tools used by narrative researchers.
Using visual and written data, Weber and Mitchell examine the phenomenon of teacher identity and the relationship between teaching practices and personal teaching philosophy (1996). Building upon their earlier research, and citing the work of other researchers including Britzman, the authors use drawings as a data source to investigate the role that childhood memories and early experiences influenced the way teachers express their identity. This methodological approach, with an emphasis on drawings as text, also recognizes and capitalizes upon the common use of metaphors in describing teachers, such as teacher as gardener, teacher as artist.

In this study, several metaphors emerged from the data. Participants used metaphors in discussions about both teaching beliefs as well as the formation of those beliefs. Metaphors appeared in the individual interviews, reflective essays and focus group discussions. Some metaphors were explicitly connected to visual text during the Object-Memory focus group. Metaphors related to teaching beliefs included circle/cycle (loop, rubber band, Ferris wheel), energy (electricity, symbiotic relationships, tension in rubber band) and web (connectedness, systemic relationships, support, community). Metaphors relating to the formation of teaching beliefs include journey (trip, adventure, chronology), vision/looking outward (perspective, view, lens, looking forward) and reflection/looking inward (mirror, reflective practices, knowing oneself). Objects related to these metaphors include an egg, dream catcher, pocket mirror, inflatable yard decoration and a kaleidoscope. I recorded each metaphor I found in the textual data and in photographs of objects. I then developed a concept map by organizing the metaphors into categories and setting aside the data for use in developing three personal narratives (Figure 3.4).
The qualitative researcher is involved in “sustained and intensive experience with participants” (Creswell, 2009, p. 177) and must address issues such as ethics and credibility. While quantitative researchers are concerned with establishing validity, qualitative researchers substitute this term with the ideas of credibility and trustworthiness. Richardson and St. Pierre (2008) provide a perspective on validity from a narrative researcher lens:

The central imaginary for “validity” for postmodernist texts is not the triangle—a rigid, fixed, two-dimensional object. Rather, the central imaginary is the crystal, which combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multi-dimensionalities, and angles of approach. Crystals grow, change, and are altered, but they are not amorphous. Crystals are prisms that reflect externalities
and refract within themselves, creating different colors, patterns, and arrays casting off in different directions. What we see depends on our angle of repose—not triangulation but rather crystallization. (L. Richardson & St Pierre, p. 478)

Lincoln and Guba (1985) offer a framework to evaluate trustworthiness in qualitative research including credibility, transferability, dependability and confirmability (Lincoln & Guba, p. 219). Techniques that suggest credibility include prolonged engagement in the field, persistent observation, triangulation, peer debriefing, negative case analysis, referential adequacy, and member-checking. Prolonged engagement involves spending sufficient time in the field to learn or understand the culture, social setting or phenomenon of interest. This involves developing relationships, including fostering trust between the researcher and participants. The goal of persistent observation is to identify those characteristics and elements in the situation that are most relevant to the research topic, “if prolonged engagement provides scope, persistent observation provides depth” (Lincoln & Guba, 1985, p. 304). Within quantitative research, triangulation is used to show statistical validity, whereas in qualitative research triangulation brings different types of data together to persuade which provides deeper understanding ensuring richness and depth with comprehensive and well-developed findings. Peer debriefing allows the qualitative researcher the opportunity to receive feedback from unbiased readers uninvolved with the project. Negative case analysis and referential adequacy involve identifying data that does not support the conceptual categories that emerge from the data, resulting in conflicting categories and outliers. Finally, member-checking provides an opportunity for participants to correct data prior to analysis as well as correcting the interpretation or representation of the data following analysis (Lincoln & Guba, 1985).
As the researcher, I am close to the study site and participants because I work in the supervisory union of the school in which the participants work. Citing Glesne and Peshkin (1992), Creswell would describe my research site as “backyard” research, or research conducted in a context with which I have great knowledge (2009, p. 177). “The way in which we know is most assuredly tied up with both what we know and our relationships with our research participants” (Lincoln, Lynham, & Guba, 2011, p. 123). Lincoln argues that positionality and voice are two of several central considerations in an ethical research relationship (1995). I believe that my proximity to the site and participants contributed to the richness of the data; participants were able to open up and share personal stories within our already established and trusting relationship. Credibility in this study was established through prolonged engagement and persistent observation which was strengthened by the relationship I had as the researcher with the study participants. In addition, negative case analysis and referential adequacy were present within the constant comparison approach used during thematic analysis. Depth and richness defined by the qualitative research definition of triangulation was established by using multiple and varied types of data as well as narrative and thematic analytic methods. Finally, I employed member checks throughout the data collection and analysis process. I discuss potential limitations related to site/participant selection and my proximity to the study site in the Discussion Chapter (Chapter Seven).

With regards to my own positionality in the fieldwork, I am an educator by profession and vocation. While not a participant myself, as a practitioner-researcher, I was already an insider, or had an emic perspective, because I had experience within the culture of the study. Like all experienced educators, I have developed my own teaching beliefs that are influenced by my perspectives and biases about curriculum theory, pedagogy and practice. As participants
described their journeys, I acknowledged and empathized with the uniqueness of each experience. While I have a prior working relationship with the participants, through this study I learned a great deal more about each individual, which began with the first interview and resonated throughout the hours of data analysis.

Participant voice was something I paid close attention to in both data collection and analysis. I documented pauses, laughter and utterances as well as non-verbal cues such as eye movement and emotional responses. It was very important that each participant’s unique voice emerged naturally, her narrative presented with integrity and respect. In shaping narratives, narrative researchers apply their own voices through the interpretive process, choosing to include and exclude specific elements of the participant’s story. In her work with narrative portraiture, Laurence-Lightfoot (2005) describes the researcher voice as “both everywhere in the work and is judiciously placed; it is both central and peripheral” (p. 10). She suggests that the “identity, character, and history of the researcher are obviously critical to how he or she listens, selects, interprets, and composes the story” (Lawrence-Lightfoot, p. 11). During narrative analysis, my own voice played a part in my role as researcher while analyzing data and developing three personal narratives. Throughout the reflexive process, I was aware of my own voice throughout and tried to make choices judiciously by employing member checks at several points during the study.

Summary

This qualitative study was designed to explore teacher beliefs and perceptions of practice. Using a combination of data types—traditional interview techniques, organized focus groups, visual and written data—this study yielded a wealth of data that contributed to the thematic and narrative findings outlined in the succeeding chapters. Analysis included thematic inquiry, which
employs constant-comparison approach, and resulted in a series of conceptual themes related to teacher beliefs and the formation of those beliefs. I also conducted narrative inquiry resulting in three personal narratives designed to explore how teachers relate their beliefs to their perceptions of practice and to understand and portray each narrative more deeply and with richer detail.
Chapter Four: Teacher Beliefs

“On ne voit bien qu'avec le cœur. L'essentiel est invisible pour les yeux.”

“It is only with the heart that one can see rightly; what is essential is invisible to the eye.”

(de Saint-Exupery, 1943, p. 70)

As discussed in Chapter Two: Conceptual Framework, despite considerable research on teacher beliefs, there is a lack of consensus on the definition of teacher beliefs and what constitutes teaching beliefs. The term belief is a broad term, and in the field of educational research several attempts have been made to develop frameworks to distinguish between types of beliefs and hence the factors that influence the formation of the beliefs. Some define the term broadly to include both subjective and often value-laden beliefs as well as objective knowledge (Clandinin & Connelly, 1987; Cochran-Smith & Lytle, 1993; Elbaz, 1991; Goodnough, 2001; Louden, 1991; Shulman, 1987) while others use frameworks that intentionally separate the two areas (Nespor, 1984, 1987; Pajares, 1992). The definition of teacher knowledge and beliefs is also a source of discussion among curriculum theorists. Within this discourse community, the characterization of teacher beliefs and teacher knowledge is often derived from the various perspectives on curriculum, are political in nature, and driven by varying reform movements. Several theorists have built organizational frameworks as a means of understanding these concepts (Eisner & Vallance, 1974; Schiro, 2008, 2013; Schubert, 1996) who generally center the debate around power relationships with regards to who decides the purpose of education, the definition of student knowledge and hence the role of the teacher in decisions related to the student’s learning experiences.

Building on Apple’s examination of the political nature of curriculum (2004), Schiro’s framework uses the term ideology which he defines as “a collection of ideas, a comprehensive
vision, a way of looking at things, or a worldview that embodies the way a person or a group of people believes the world should be organized and function” (2008, p. 8). Schiro proposes that ideologies are politically driven and “carry cultural impulses to dominate rival ideologies and control aspects of their culture” (p. 9). In relationship to education and teacher beliefs, Schiro argues that proponents of each ideology have an agenda to persuade members of the community, in this case teachers, to their own viewpoints. Schiro’s Curriculum Ideologies Inventory, which he uses in his narrative studies, contributes to “curriculum ideology life histories” (p. 198). As mentioned earlier, the inventory asks participants to rate a series of belief statements in six areas and then graph their results to reveal their disposition in the six areas against Schiro’s four ideologies: Scholar Academic, Social Efficiency, Learner-Centered, and Social Reconstruction.

Each of the four visions of curriculum embodies distinct beliefs about the type of knowledge that should be taught in schools, the inherent nature of children, what school learning consists of, how teachers should instruct children, and how children should be assessed. Each vision has its own value system, its own purposes of education, its own meanings for words … its own heroes whose beliefs it repeats, and its own villains whose beliefs it rails against. (2008, pp. 1-2)

In this study I engage in a thematic and narrative inquiry process based on an expansive definition of the term ‘belief.’ I designed my data collection with accessibility to a variety of interpretations of belief, and I employ a variety of mechanisms to cause participants to reflect on their beliefs. Throughout the study, not a single participant asked for clarification of the term belief. For example, I began with individual interviews (conducted in December 2013) by reading an introduction that included the statement, “Today I will ask you a series of questions designed to cause you to reflect upon your teaching beliefs and the events that may have
contributed to the development of your current beliefs.” I then began the interview by asking for general background information and questions about their experiences as learners. After collecting this information, I turned to a series of questions designed to collect data to help me understand how teachers articulate their beliefs and their perception of how the beliefs are formed. I posed the questions, “At the time you entered the profession, can you remember what motivated you, and how you would describe your beliefs about teaching and learning?” I followed with additional probing questions:

- **Today, how would you describe your core beliefs about teaching and learning?**
- **How have they changed over the course of your professional career?**
- **Were there any events (personal or professional) that may have challenged or strengthened your beliefs?**
- **As you now consider the span of your professional career, can you point to any other personal or professional events that may have influenced your beliefs and your practices?**
- **As you consider your current teaching position, how closely would you say your beliefs match your current practices?**
- **If you were to be able to design a setting in which your beliefs could be more closely actualized, what would that look like?**

Participants responded to these questions immediately without needing clarification. Below are some sample responses:

“My main belief is that each person is on their own journey. I need to give them whatever they need to get to the next step” (Samantha, Interview, 12/6/13).
“I believe that learning is a two-way street. It doesn’t matter who is in the room. It’s always a continuous feedback loop. The educational process is a continuous feedback loop to whoever is the leader in the room to whoever is the learner in the room and those two positions should always fluctuate and change.” (Phoebe, Interview, 12/13/13)

“That single belief that the student is first and that student learning is the release, is the future, is the goal, and is their life.” (Mark, Interview, 12/5/13)

At the end of the interview, I read a closing statement that served to prepare participants for the first focus group. It included the following directions:

*Your next event includes a focus group discussion. Between now and then, I ask that you find an object that you feel best represents your teaching beliefs. Please write a short rationale for why you chose this object. Come to the focus group prepared to share your object and your rationale and to answer a series of questions about your teaching beliefs.*

During the Object-Memory Focus Group, participants took turns sharing their objects and citing their reasons for choosing the object while the other participants and I posed questions to further supplement their thinking. Participants introduced their object and either read directly from their prepared essay or spoke off script. For example, Fran presented her object, a Rubik’s Cube, and described her teaching beliefs, “my object is a Rubik’s Cube ... because this to me represents problem solving and perseverance” (Fran, Object-Memory Focus Group, 1/8/14). In all cases, participants then launched into a story, typically from their classroom or from their childhood, to illustrate why they chose this object. For example, Sarah brought an egg to the Focus Group and explained, “This egg lends me to understand and remember how fragile kids
are sometimes and how much there is to the makeup of who they are, and I really want to pay attention to that.” (Sarah, Object-Memory Focus Group, 1/8/14).

As participants engaged in each event, I observed changes in language use over time. For example, during the first interview and Object-Memory Focus Group, when participants were asked to describe their beliefs about teaching and learning, I observed that participants used terms more closely related to beliefs, values and general moral principles. When describing specific examples of how beliefs were evidenced in practice, or how they would design a school that matched their beliefs, I observed the use of broad educational terms such as student-centered, individualized learning, multiple intelligences and differentiated instruction.

The last focus group was designed around Schiro’s Curriculum Ideology Inventory as a means of discussing teaching beliefs within an organizational curriculum framework. Participants completed the inventory, graphed their results and reflected on the results alongside their perception of their teaching beliefs and prior statements about their teaching beliefs. It was at this point that I observed participants using belief terms related to the four ideologies and general curriculum theory such as constructivism and social-reconstructivist.

Following the completion of the data collection for the study, I engaged in thematic analysis of the data, a process outlined in detail in the Methodology Chapter (Chapter Three). Emerging themes represented a broad definition of teaching beliefs that spanned the spectrum from more subjective and value-based beliefs and beliefs related to knowledge to those derived from curriculum theory. The following conceptual themes about core teaching beliefs emerged:

- Connecting
- Learning outside of academic content
- Giving back
- Setting high expectations

**Connecting**

The participants in this study identified connection, relationships and the value of the individual as a teaching belief. Students were described as individuals warranting individualized attention and instruction. The teachers discussed the importance of relationships including teacher-to-student relationship as well as the relationships that exist within the classroom community. More than just valuing the idea of having rapport with their students, participants identified this as a teaching belief because they saw an explicit relationship between connecting and the learning process. “Students learn best if they are listened to and understood to be independent people and thinkers and appreciated for who they are as people. I can’t tell you how important it is for me to connect with them. There is nothing more important than that connection” (Sarah, Object-Memory Focus Group, 1/8/14).

Participants described student-centered environments that focused on individual student growth; this is closest to Learner-Centered Ideology. This ideology, based on a constructivist learning theory, has had a long history in the U.S. and is represented by educational reform movements such as the humanist, experientialist, developmentalist, progressive education, open education and child study. Learner-centered theorists and educational reformers include Hall (1891), Dewey (1938), Noddings (1998, 2003) and Carini (2001). Learner-Centered educators view curricula as designed to meet the individual learner’s needs and interests. In the purest definition, curriculum is co-created by the learner and teacher, and the teacher’s role is to support each individual learner within a constructivist learning environment. Teaching involves
observation of students, diagnosis of their interests and needs, creating the learning environment that best meets their needs and facilitating student growth.

When asked about their teaching beliefs, the participants in this study characterized a strong disposition towards Learner-Centered teaching beliefs in numerous ways, including statements as well as the results of their curriculum ideology inventories (Figure 4.1).

Hannah identified relationship as a central tenet of her beliefs; she brought a poem to the Object-Memory Focus Group to represent her beliefs. She had collected this poem early in her teaching career and felt that it reflected her beliefs about teaching and learning (Figure 4.2). Hannah followed with an explanation:

We, as educators, do possess such power over how our students go through their day. When students come into my classroom, I want them to know that at that

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**Poem by Haim Ginott**, Developmental Psychologist, Author, Teacher

“I’ve come to a frightening conclusion that I am the decisive element in the classroom. It’s my personal approach that creates the climate. It’s my daily mood that makes a child’s life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or humoral. In all situations, it is my response that decides whether a crisis will be escalated or de-escalated and a child humanized or de-humanized.”

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**Figure 4.1.** Curriculum Ideology Inventory: All Participants

**Figure 4.2.** Hannah’s Object: Poem (Ginott, 1975)
moment they are more important than anything else. That they will get my full attention, understanding and patience …There are times when a student comes in and is angry about something. How you respond to his/her mood could change the final outcome? Will you respond in a way that is not confrontational or confrontational? Will you give them space or send them out of the room? I have always found that, in most cases, giving them space and just letting them know that brings their stress level down, and by the end of class I tend to get a little accomplished with this student. (Hannah, Object-Memory Focus Group, 1/8/14)

Gail described a Learner-Centered learning environment and her view of the role of the teacher as coach. She discussed the importance of classroom community in the facilitation of the learning process and how that impacted her role as a teacher. She also described how experiences in her own life contributed to this disposition:

I had been a coach for many years in various sports and I really liked to teach as if I were a coach, which to me means building this kind of like ‘we are in this together. It’s not me against you but we are together. I’m here to help you reach your potential and do your best. And you guys are here for each other too. You know we are all sort of one big team.’ (Gail, Interview, 12/5/13)

Gail’s Object, a Native American dream catcher (Figure 4.3), represented her teaching beliefs. She explained why she chose this object:

The dream catcher is round with an interconnected web of string. For me, teaching and learning are
connected in a never ending circuit where information travels back and forth from person to person. People teach and learn whether they are student or teacher. Life is a constant adventure of both teaching and learning wherever we are. In the classroom we are all connected and are there to support one another and share in the teaching and learning journey. If the bonds of the web are tight and don’t break, the connectedness makes the transfer of questions, ideas, information and expectations seamless and smooth. (Gail, Object-Memory Focus Group, 1/8/14)

Phoebe defined a teacher-student relationship within a Learner-Centered learning environment as, “learning is a two-way street. It doesn’t matter who is in the room. The educational process is a continuous feedback loop, whoever is the leader to whoever is the learner in the room and those two positions should always fluctuate and change” (Phoebe, Interview, 12/13/13).

Samantha also emphasized the importance of classroom community and the impact on learning. She described how important the development of classroom community was to her and her approach to building a respectful classroom community:

I tell them on the first day that the classroom runs on mutual respect. I will always treat you with respect and I expect the same in return towards me and that you respect each other ... and I’m always going to treat you with respect. The bottom line has to be that we all respect each other. (Phoebe, Interview, 12/6/13)
Patrick discussed the importance of classroom energy, energy provided by both the teacher and the students. In order to illustrate this point, he brought an inflatable yard decoration (Figure 4.4) to the Object-Memory Focus Group. As he spoke, he inflated the object and explained his concept of classroom energy:

(Students) come in all shapes, sizes, colors. What changes the dynamic is how information, a classroom atmosphere, content, interpersonal relationships, are used to connect with the student. Students won’t care what you know, until they know that you care. Therefore, it is this energy within the teaching that enables the learning. This charge or current triggers students to form their own passion and joy for learning. And then when you add electricity or energy into it, it can form into anything. Making a connection to the students is of utmost importance because it is with that connection that you can manipulate the content to engage them. You can have students being interactive with each other. There is an energy that I, as the teacher, bring into the room so that they are feeding off that but then the result is the energy comes from the students and that they are dishing it back to me. So it’s this positive reinforcement that happens when students are engaged. Without any energy in it, then it can be anything, but if we add energy in it, it takes on a whole new meaning. That’s the energy that I bring to the classroom. (Patrick, Object-Memory Focus Group, 1/8/14)

Fran and Patrick discussed structural ways that a school could support a student-centered learning environment in which “…they would have access to individual instruction and have all the tools and time and resources necessary” (Patrick, Interview, 12/11/13). Fran described her
ideal school, “I would like to see kids move along a continuum of learning, not based on their age or grade. And I would like days to be structured in a way that kids could spend more time working on things that interested them” (Fran, Interview, 12/13/13).

Among the study participants, *connecting* was identified as a common core belief. Participants conveyed the critical importance of establishing relationships, making connections and valuing the individual student. Every participant spoke about how important it is in the learning process to have established, strong relationships, to get to know each individual learner, to ensure that the teacher-student relationship is a respectful one and that it is critical to create a sense of community within the classroom.

**Learning Outside of Academic Content**

Another theme that emerged in this study is a teaching belief that learning academic content—as defined by specific disciplines such as math, science, social studies, etc.—is of less importance than learning critical skills found outside of academic content. While each participant expressed a love or passion for the content in the discipline they taught, each identified the importance of teaching cross-cutting skills, habits of mind and learning dispositions. Participants often stated that these transferrable skills are as important, if not more so, than academic content. Some participants described these as life skills or lifelong skills and said that teaching these skills was their primary goal over teaching academic content. Hannah addressed this need as, “yes, I feel my content is important but if I can teach them the life skills then I think I’m doing a better job at what I’m doing” (Hannah, Interview, 12/6/13).

Fran also addressed this teaching belief, “the content that we teach them is very important, but at the end of the day, they go out in their car, and they are driving along the road
and the car breaks down. Can they handle that? Can they handle that problem? Can they come up with strategies and deal with it?” (Fran, Object-Memory Focus Group, 1/8/14). Fran’s object, the Rubik’s Cube, represents her beliefs about teaching and learning (Figure 4.5).

The object I’ve chosen to represent my beliefs about teaching and learning is a Rubik’s Cube. It represents problem solving and perseverance. I’ve come to believe that one of the best skills we can give our students is the ability and stamina to work through problems. To critically assess problems, brainstorm and try different strategies, and have the grit to continue to work on it when they get stuck. By offering them challenges, teaching them a few strategies to try, and enabling them to try, fail and try again, they will hopefully develop a sense of critical thinking and perseverance that will serve them in all aspects of their life. One of the best gifts that we can give kids is the ability to problem solve and the strategies to try and let them try to muddle through. (Fran, Object-Memory Focus Group, 1/8/14)

Samantha values problem solving and creativity as teaching beliefs over the academic content she is responsible for teaching. She considered the transition to the new state standards as an opportunity, “I kind of like the new curriculum because there is more of an emphasis on problem solving, risk taking” (Samantha, Object-Memory Focus Group, 1/8/14).

It can be argued that these non-academic learning skills and dispositions are found in all four ideologies but are most present in the Social Efficiency ideology. Social Efficiency is rooted in behavioral psychology and utilitarian education promoted by theorists Bobbitt (1918) and
Tyler (1949). Curriculum and knowledge is defined by societal needs, and the role of the school and teacher are to prepare students for a future society (Schiro, 2008, p. 64). The classroom learning environment emphasizes standardized learning outcomes, scientifically research based practices and objective assessments. Social Efficiency educators focus on behavioral learning and place less emphasis on the acquisition of content (p. 53). Within a behaviorist frame, the role of the teacher initiates stimuli to induce the learner to change, monitor learning by using a scientific method with objective targets, and evaluate the learner’s mastery of the outcomes. This approach is central to the current standardized assessment and school accountability movement in the United States.

Currently the Social Efficiency ideology has a strong presence in the U.S. public schools as is evidenced by the standardized assessment and school accountability movement. This concentration on habits of mind or cross-cutting skills is also contextually supported and reinforced by a series of state standards with which the participants have experience; this includes the Vermont Frameworks of Standards and Learning Opportunities, incorporating the Vermont Vital Results, or a set of cross-cutting competencies such as: Communication, Reasoning and Problem Solving, Personal Responsibility and Civic/Social Responsibility (2006). More recently, Vermont legislators adopted the Vermont Education Quality Standards (2014) which required that all high schools transition to a new curriculum framework with a set of Transferrable Skills defined as “a broad set of knowledge, skills, work habits, and character traits that are believed to be critically important to success in today’s world, particularly in collegiate programs and modern careers” (2014, p.6). These include Clear and Effective Communication, Self-direction, Creative and Practical Problem Solving, Responsible and Involved Citizenship and Informed and Integrative Thinking. The participants in this study had been involved in work
with their colleagues in defining these skills for Massena High School’s new proficiency-based graduation requirements.

The participants in this study discussed their experiences; they were pulled between beliefs represented by the Learner Centered ideology and their professional environment ordered around the Social Efficiency ideology. Schiro discussed this phenomenon where teachers exhibit dispositions towards multiple ideologies. Unlike educators who hold a dualistic posture where they only accept the existence of one ideology, Schiro (2008) describes educators who take “relativistic” posture as those who acknowledge and accept the existence of a variety of curriculum ideologies that they can then identify and understand in each of the ideologies in their work. He described educators who adopt a “contextual” position as those who recognize and apply different ideologies for accomplishing certain goals or purposes. He argued that “educators who take a relativistic or contextual posture toward the existence of different ideologies can believe in more than one ideology simultaneously and can combine ideologies in unique (and often inconsistent) ways” (2008, pp. 206-207). Mark reflected on feeling dispositions towards multiple ideologies, “I know I’m Learner-Centered and I know the Social Efficiency appeals to me but there is this Scholar Academic (ideology) ... it’s essential to what we do that you have to have that base knowledge (of each content area).”

Sarah’s curriculum ideology inventory results reflected this phenomenon (Figure 4.6). She reflected upon her results:

It seems that I’m all over the place except for Social Efficiency. It appears that I care a great deal about letting our society define and it doesn’t sit well with me—having our society define us and our students or define what is important with regards to our
Learning outside of academic content was a central theme in this study. While all participants expressed a love for the content they taught within their academic discipline, they articulated a core teaching belief that placed a high value on the learning skills that happen across all academic content areas. Some referred to these as learning dispositions, habits of mind, work habits or cross-cutting skills.

Giving Back

“We need to think about giving back and what is our responsibility as a result of our education and our privilege to be educated” (Bethany, Interview, 12/11/13). Participants spoke about the importance of giving back to the larger community in two ways. First, a common thread among the participants is the view that teaching is a social mission. Second, participants discussed the importance of instilling service learning in their students through curriculum and modeling service behavior.
Phoebe spoke about schools as being the “the great equalizer” (Phoebe, Object-Memory Focus Group, 1/8/14). She brought two picture books to the Object-Memory Focus Group—Lilly’s Purpose Plastic Purse by Kevin Henkes (2006) and Silent Observer by Christie Mackinnon (1993). Phoebe explained how she viewed literature as a symbol of equity in education (Figure 4.7).

I chose children’s picture books as my Object because I really feel like they represent my belief about teaching. For me (picture books) are the great equalizer. I’ve always taught heterogeneous classes with huge mixes (of students) which presents a huge challenge. I get kids who can’t read and I get kids who read a lot. I teach a subject matter area that doesn’t always have the best books or resources. The resources are all college level so I use picture books. They are really a great way to help the learning in the classroom. (Phoebe, Object-Memory Focus Group, 1/8/14)

Mark spoke frequently about teaching as a social mission. Raised in poverty, Mark acknowledged the critical role that education played in his own life and confirmed his commitment to do the same for others. “You want to get somebody out of poverty then you can do that by teaching the student. I had the ability to understand when someone stepped in and touched that world and made a difference and inspired me” (Mark, Interview, 12/5/14).

The theme of giving back is present in the Social Reconstruction ideology. Similar to the Learner-Centered ideology, the learning theory underlying Social Reconstruction ideology is constructivism. However, unlike the Learner-Centered focus on the individual learner, social
reconstructivists emphasize the individual within the group. Social Reconstruction educators view curriculum from a social perspective and assume that society has inherent ills. With this view curriculum focuses on the skills that our students need to identify and solve societal problems. Students and their teachers are change agents engaged in social action and schools are institutions of social change. Social Reconstruction is the focus of critical theorists such as George Counts, Henry Giroux, Michael Apple and Paulo Freire.

During our work with Curriculum Ideologies, Samantha reflected on the results of her inventory which indicated a consistently high disposition towards the Social Reconstructivist ideology in all six areas:

I don’t know much about curriculum theory, really … but one thing I do know, is that I’m a little frustrated with teaching (my content area) right now. I see that in all of my answers. People think (it) is about right and wrong. The best part…bis when you are kind of pulling from everything you’ve ever known trying to figure out what the answer might be—the creative part. But people don’t get that. I do want each person to be an agent of change for whatever they think the future should be. (Samantha, Curriculum Ideology Focus Group, 1/15/14)

Within our discussion about social reconstructivist as a curriculum ideology, Gail made the following observation, “I want all of us to be giving back to our communities and to our societies” (Gail, Curriculum Ideology Focus Group, 1/15/14). Bethany served as a Peace Corp volunteer and had prior experience working in a school that required service learning. She included service learning in her description of an ideal school. She talked about the challenges of implementing Social Reconstruction pedagogy in typical school environments:
I would love to have community service. It’s such a tricky one though because I’ve seen service that is so forced and it just defeats the entire purpose of service, or it’s just confusing for whom the service is. But I like the idea of having kids teach about something they love or give back using something they know. I think it is really powerful. When I have seen students do that, I’ve just been amazed at what they do, and how they lead. (Bethany, Interview, 12/11/13)

Giving back emerged as a central theme in this study. Participants described teaching as a social mission. They also identified service learning and social justice as important student learning goals, a teaching belief represented in the Social Reconstruction ideology. Giving back is a theme that had a strong presence in discussion about the purpose of public school. During the interviews and focus group discussions, I noted participant inferences about the purpose of school. Purpose is one of the six categories in the Schiro inventory tool, and as such, participants reflected on their individual perception on the purpose of public school. Because a number of participants brought up the idea of purpose of schooling when they were discussing their beliefs, I decided to follow with participants and asked them to write down their description about the purpose of public school in America. Participant responses fell in five general categories: (1) to serve the public; (2) to ensure equity, equity of access to public education and public school as the great equalizer; (3) to create contributing members of society and develop positive community members; (4) to create self-actualized adults who are economically viable and self-sustaining members of the community; and (5) to teach learners how to learn and foster independent learning. Ultimately, participant responses fell predominantly in some form of public service or social mission, with some statements touching on teaching cross-cutting skills.
Setting High Expectations

The participants discussed the critical importance of setting high expectations for their students and equated this with a form of respect for their students. Participants were able to make explicit connections between this belief and their own experiences as a student learner. Each spoke about their own experiences as learners and identified a teacher or teachers who respected them by holding them to high expectations. Hannah, like many of the participants, traced this belief back to her own experiences, “the courses I succeeded in were the ones where the teachers pushed me.” When asked to describe her ideal school, Fran identified rigor as a core belief, “if there is one thing I would fix in school, we need to give them more challenges” (Hannah, Interview, 12/6/13).

Mark discussed the relationship between a learning environment that conveys academic rigor and the student’s self-esteem:

What I want is the student to come up with some answers and say, “wow I did it!” Now, I don’t want to fake it either. Students know exactly when you just give them a grade. I did, you did. We all know when we’re just given a grade. I want them to earn what they get because that self-esteem comes from, “wow I actually understand what I’m doing and I earned it!” (Mark, Curriculum Ideology Focus Group, 1/15/14)

The terms rigor and academic rigor were used by participants as an outcome to high expectations. I observed that during focus group discussions, participants nodded in agreement when the term was used. As individuals or the group discussed teaching beliefs, the term rigor represented a generalized value statement. During the curriculum ideology focus group discussion, the term was used in relation to the Scholar Academic ideology.
According to Schiro, educators who subscribe to the Scholar Academic ideology, the purpose of education is to teach children basic information to become culturally literate adults (Hirsch as cited in Schiro, 2008, p. 13) and that knowledge is determined by the academic disciplines found in higher education. Scholar Academic theorists and educators include Buberman, Hirsch, Eliot, and Harris were the driving force behind the work of the National Education Association’s (NEA) Committee of Ten (1894). Curriculum designers in this ideology come from the specific academic field. The learning theory and hence instructional practices associated with this ideology are different depending on the specific discipline (Schiro, 2008, p. 43). Teachers are transmitters of knowledge and students are receivers of the knowledge.

Of the ten participants, Lisa’s Curriculum Ideology Inventory results reflected the highest degree of consistent association with the Scholar Academic ideology (Figure 4.8). She spoke passionately about trying to find a balance between supporting individual growth while holding all students to a set of common high standards. Lisa reflected on her results:

My highest was Scholar Academic and my second was Learner-Centered, and I think what that reflects is somewhat of a true statement in terms of really believing in rigor and high expectations. And yet I don’t always see myself just as the assessor or the provider of knowledge, and I certainly don’t see the child as just a mind to be filled up by the teacher ... I think the whole idea of rigor and a certain degree of cultural literacy and some knowledge that I know is important and that they may not know is important, is certainly true, but I certainly place a heavy emphasis on growth and see kids as having to be actively involved and meaning making ... I think I toggle back and forth in the classroom between seeing myself as facilitator and also seeing myself as purveyor of knowledge. (Lisa, Curriculum Ideology Focus Group, 1/15/14)
Setting high expectations was a central theme in this study. Many shared that they were conflicted between their belief in the individual and the recent move to standards-based learning causing them to need to differentiate their expectations for each student. Regardless, participants equated holding students to high expectations as sign of respect for the students.

Summary

In this study, participants expressed a series of teaching beliefs and identified specific factors that influenced the development of their beliefs. Emerging themes included (1) connecting; (2) giving back; (3) learning outside of academic content; and (4) setting high expectations. Teacher’s beliefs were expressed through an examination of Schiro’s Curriculum Ideology framework, and the Learner-Centered ideology dominated the group’s scores. Social Efficiency and Social Reconstruction shared a close second. In the following chapter I share the themes related to how teachers form their beliefs.
Chapter Five: Formation of Teacher Beliefs

“Les grandes personnes ne comprennent jamais rien toutes seules, et c'est fatigant, pour les enfants, de toujours et toujours leur donner des explications.”

“Grown-ups never understand anything by themselves, and it is tiresome for children to be always and forever explaining things to them.”

(de Saint-Exupery, 1943, p. 8)

This study examined the way teacher’s beliefs are formed. Throughout this study, participants spoke openly about their beliefs, the people and events that influence the development of their beliefs and their perceptions of practice. Beginning with the individual interviews and then expanding upon their statements during the two focus groups, participants drew upon a variety of memories from their childhood. They reflected on their own experiences as learners from early childhood through post-secondary schooling and discussed the personal and professional influences on the formation of their current beliefs about teaching and learning. Participants moved back and forth fluidly between statements about their beliefs to factors that helped form those beliefs citing specific examples. They were able to identify turning points in their formation and teacher identity development. Finally, participants were able to make an explicit connection between their own experiences as learners and the choices they currently make in their teaching practices.

Prior to reviewing the themes that emerged, it is worth reiterating that for purposes of this study, I have adopted a broad definition of the term beliefs. While analyzing the data, I remained open to hearing teachers discuss their beliefs related to values, morals and principles as well as those beliefs that many have related to the more technical or practical aspects of teaching, often referred to as teacher knowledge or pedagogical dispositions. The conceptual themes included in
these findings reflect the formation of teaching beliefs based on the broader definition of the term.

Findings related to the formation of beliefs within this qualitative study, are based on each participant’s perception of those factors that helped to form their beliefs, therefore memory played a significant role in the findings as they related to the formation of beliefs. Chapter Three described in detail the methodological framework of the study. Thematic analysis of the data relating to factors that influence the formation of teacher beliefs resulted in the following conceptual themes:

- Establishing beliefs through childhood schooling experiences
- Expanding upon beliefs through personal relationships
- Challenging beliefs in teacher education programs
- Supporting beliefs through mentoring
- Refining beliefs within professional contexts

I will now outline each theme, provide examples of supporting data for each theme related to the formation of teacher beliefs.

**Establishing Beliefs through Childhood Schooling Experiences**

When asked to reflect upon factors that influenced the formation of their beliefs about teaching and learning, participants consistently began with their own childhood experiences as learners. In the first interview, each participant reflected on their childhood experiences in school by choosing adjectives indicating specific student identities, including, “lazy,” “social,” “bored,” “struggling,” ”arrogant,” and “average,” among others. Many described themselves as struggling
academically or socially, while others recalled being bored or not challenged in school. The ten participants as a collective provided a variety of student identities:

“I was an average student. I was the social bug. And at times I did the minimal work in order to get the grade” (Hannah, Interview, 12/6/13).

“I was an arrogant student and I sort of figured out the system in 3rd grade” (Phoebe, Interview, 12/13/13).

“I was very good at rote learning for a temporary amount of time. I could learn well enough to take the test and do well. But I’m one of those people that probably wouldn’t retain it later if I didn’t care about it. I knew how to play the game fairly well but I wasn’t learning deeply” (Fran, Interview, 12/13/13).

“I think I was a pleaser. I didn’t want to get in trouble. I was a good, docile student in class. I did love school. I enjoyed being there and I think I was happy” (Gail, Interview, 12/5/13).

“In high school I was a good student, but I didn’t care. I was smart. 90 was my goal” (Samantha, Interview, 12/6/13).

“I was not a great student. I really loved school but as far as when 3 o’clock came then I was (involved in extra-curricular activities). My senior year was a challenge for me because I found that I could kind of slough things off” (Patrick, Interview, 12/11/13).

“I struggled. And I had some really tough teachers who allowed me to fail and then reinforced that with (messages like) ‘You’re lousy,’ ‘You’re useless,’ ‘You’re going to haul wood’” (Mark, Interview, 12/5/13).
“I was a really good student. I knew how to be a student—all the things to do to be a good student and get a good grade. Somewhere along the way, I just learned it or just naturally picked it up—note taking, studying, doing my homework—all those things” (Bethany, Interview, 12/11/13).

“I was a terrible student. I started out very poorly. I never had a good educational experience until I got to my Master’s program. In kindergarten, and all the way up through, I only had one teacher who thought that I did anything right” (Sarah, Interview, 12/20/13).

“I really struggled, and I think as somebody who was very social and was aware of myself socially and cared a lot about myself socially, I did a lot of compensating in the classroom. I was more social and athletic and because I had to work hard and a lot harder than my friends, I pretended sometimes that I didn’t care” (Lisa, Interview, 12/11/13).

As each participant described their student identity, I observed that the choice in terms consistently connected with an emotion, including a laugh, a sigh or a show of sadness or regret and was immediately followed by a specific memory, or memories, that served as examples. Participants who described positive experiences, spoke of their former teachers with obvious respect, often smiling while they relayed experiences with teachers they connected with, those who took the time to get to know them and understand them and teachers who respected them enough to challenge them.

The participants’ student memories included both negative and positive experiences. Negative experiences included being humiliated or embarrassed by teachers or generalized memories of not feeling understood or challenged. Many of the positive memories centered on
relationships – individuals or programs where the participants felt supported or challenged or where they found someone who believed in them or took the time to get to know them.

Each participant articulated explicit connections between the experiences they had as a learner and the development of their own teaching beliefs, openly sharing both positive and negative experiences. These experiences directly informed their beliefs and practices as teachers. Participants recounted positive experiences they had as a learner and expressed their desire to replicate the experience for their students. Conversely they also shared a number of negative experiences and expressed their commitment to doing the opposite as a teacher, essentially righting a wrong done to them. Conversely, stories where participants experienced negative interactions with teachers were typically followed by statements that they as teachers were committed to avoiding the same mistakes with their students.

During the interviews, without specific prompting, each participant identified a teacher or teachers who believed in them and pushed them to meet high expectations. These may have also been teachers with whom they felt a rapport, but rapport appeared to be secondary to the sense of respect they felt. After all, these the teachers had put in extra time with them, held them to high expectations and did not accept low quality work. For example, throughout her interview, Gail reflected several times on a specific high school teacher who challenged and supported her:

I didn’t always like her, but I respected the heck out of her. I really did. I really respected her and I knew that what she was doing. And you know—memory is a funny thing. I’m looking at this retrospectively, and I don’t know how I felt that at the time. But I knew soon after I had her as a teacher that I appreciated her for what she had done for me.

(Gail, Interview, 12/5/13)
Where participants cited examples of when they were humiliated or misunderstood, they discussed the importance of the teacher-student relationship and of valuing the individual child. Those who shared stories of teachers who didn’t challenge them also discussed the importance of setting high expectations, the value of academic rigor and the degree to which this conveys a sense of respect to the students. For example, Phoebe stated that she felt she was misunderstood as a child, recalling a specific example and then later connecting it to her own decisions as a teacher:

I was not allowed to take out books because they decided they were not at my reading level. The librarian refused to allow me to take out a book! It’s a very vivid memory! They decided I was not a high level reader, because I was embarrassed to read out loud, and I refused to do it. So, of course they put me in the lowest reading group and you could never get out of that reading group. So equity is really important to me, because I believe a lot of kids are very smart but don’t fit into the system. (Phoebe, Interview, 12/13/13)

Later Phoebe connected her own experiences as a student with this specific core teaching belief. “I decided that when I became a teacher it was going to be the average basic kid I was going to try to reach, that I was going to advocate for” (Phoebe, Object-Memory Focus Group, 1/8/14).

Sarah also identified explicit connections between her own experiences as a student to the formation of her own beliefs and practices as a teacher. She described herself as a student who struggled academically and recalled several incidences throughout her schooling where she felt publically humiliated, misunderstood, disrespected and unsupported by her teachers. However, she also identified a teacher who took the time to get to know her and support her:
I was someone who struggled, struggled, struggled. I couldn’t memorize and if you couldn’t memorize back then, you were in huge trouble because that’s all that learning was—memorization. So in the eyes of many of my instructors, I was an exceptionally poor student. I was not supported very well. I never, ever asked any questions, and I never understood what was going on. I didn’t have a clue … (until I had Mrs. X, who) … was one of the biggest supporters in my life, and she took me through and made me understand it. (Sarah, Interview, 12/20/13)

While sharing her core teaching beliefs, Sarah expressed the critical importance of the student-teacher relationship. She spoke about the fragility of the learning process, emphasizing this by bringing an egg to the Object-Memory focus group. She explained (Figure 5.1):

I was not a good student. I had a lot of trouble with teachers growing up. I had a lot of trouble with learning. I had teachers who embarrassed me. I had teachers who had paddles, and if you raised your arm and got the answer wrong you got hit. So my concept with fragility mostly had to do with the students and how I really want to pay attention to (each student). I can’t tell you how important it is for me to connect with them. I think that is huge. There is nothing more important than that connection and to pay attention to how fragile some students are, and if they have a weak spot, to try to build it. Help them along and not simply mark them as unable to do things. (Sarah, Object-Memory Focus Group, 1/8/14)
Mark was able to pinpoint a specific moment in his middle and high school years when teachers had a direct impact on his student identity and his teaching beliefs:

In 7th grade I was an A student. But I had a math teacher who I could not stand. I had A’s in everything else, but I had D’s in that math class. The next year, first day of school where they used to literally put up lists—A group, B group, C group, D group—at our school ... I was in the A group to start the year. I walked into his math class and he called me up the first day of class, made me stand in the front of the class and told me that I had no business being in the A level group because of my math performance in 7th grade and that I had an attitude problem. I mean he said all of this in front of the class! He opened the door to what was (another teacher’s) class and said to her, “I’m sending you this problem.” Just like that! And he sent me to the B level class. That was my 8th grade year. So I proceeded to fail 8th grade. I did not do any work. I didn’t do a lick of homework. So I proceeded to fail that class. Then I went to 9th grade and they put me in D level classes (laughed) and I proceeded to fail 9th grade! (Mark, Interview, 12/5/13)

Mark went on to share positive memories of two individuals he encountered in high school who he credits with pulling him out of his downward academic spiral following his negative experience:

I had made the varsity soccer as a freshman, and I was a starter, but I was on the road to surrendering school, failing pretty much. I ran into a soccer teacher and my (former) soccer coach from 8th grade. They pulled me aside and said, “You’re never going to play another day of sports until you get your head together and start to think about what you’re
doing in your life.” And I rejected that. I cried all the way home (laughed) because these were two guys I really looked up to. I continued to fail my 9th grade year.

I came back my sophomore year and again he wouldn’t let me be on the soccer team. I was a starter as a freshmen but, he said, “no, you’re not on my team, but you will come to my office every day and study. So I went to his office and studied and studied. I ended up doing cross country that year—switching sports—doing cross country that’s what I got the (college) scholarship for, so it was fortunate that happened. These men had a standard in this world, but they also backed it up and because of them I was able to recover with a really strong junior year, recover and get myself back on track. Those two coaches—they made a difference. (Mark, Interview, 12/5/13)

A review of the literature on the formation of teaching beliefs reflects strong consensus that teaching beliefs are established early during the teacher’s childhood schooling experiences. In Lortie’s early work in examining teachers from a sociological perspective, he argues that unlike other professions, teachers enter into the profession having already experienced the context as learners, and because of that dynamic, teachers have all engaged in some degree of “apprenticeship of observation” (p. 61). Lortie suggested that as observers, we all develop notions about what makes a good teacher versus a bad teacher. In their exploration of what the term teacher socialization research means, Zeichner and Gore (1989) confirm the influence that childhood experiences have on teacher beliefs with pre-service teachers reflecting their desire to duplicate positive experiences.

More recently, in a study conducted on pre-service teacher beliefs and the formation of beliefs, Richardson (2003) suggests that the formation of teacher beliefs comes from three major
sources: the teacher’s personal experiences, experiences that the teacher underwent in their own schooling and instruction and the teacher knowledge. Richardson goes on to suggest that the teacher’s experience as a student is the strongest of the three, acknowledging that unlike other professions, those who enter the teaching profession have been observers of teaching for many years.

The results of my study suggest that the teacher’s beliefs form during childhood when they are students. Student identity and experiences as students, both positive and negative, and the way in which these experiences influenced teaching beliefs, were a predominant theme in this study. As participants described their own teaching, what they valued in teaching, how they set up their learning environments and their motivation for wanting to become a teacher, they were able to make direct connections to their specific learning experiences.

**Expanding upon Beliefs through Personal Relationships and Experiences**

Participants in this study, as they cited the factors that contributed to their teaching beliefs, discussed personal experiences and relationships including parents, other family members and personal childhood experiences which contributed to the development of their beliefs as they were growing up. Personal relationships included parents, siblings, spouses, friendships and their own children. Beginning with childhood experiences, these relationships caused participants to develop values, expand their perspectives and consider their own students from these lenses. I found that the impact of the teacher’s personal life on the formation of teaching beliefs among these experienced did not end in childhood but carried throughout the lives of these experienced teachers.
Mark described his experience growing up in poverty and how his interactions with two athletic coaches contributed to his teaching beliefs and ultimately his decision to become a teacher.

We almost lost our house. It was just crazy poverty. And these two guys never stopped believing in me. Bought me running shoes, bought me basketball shoes, bought me soccer shoes, gave them to me anonymously ... I couldn’t write an essay to save my life (laughed) and they sat down with me as a coach and taught me how to write an essay, not as my teacher, but as my coach. They didn’t do this for the success of their team. They cared. For me I always thought that you should bring that to teaching so it’s what I decided I wanted to do. (Mark, Interview, 12/5/13)

Mark went on to speak about his own social mission as a teacher to support all students but with a particular eye towards supporting students of poverty.

You want to get somebody out of poverty; you can do that by teaching the student. I had a great experience because I could feel that. I (knew that) someone stepped in and touched that world and made a difference and inspired me and now I created myself to be that person for others. (Mark, Interview, 12/5/13)

Phoebe spoke about how her family values contributed to her teaching beliefs, “I grew up in a family that treats children like thinking people and we were allowed to contribute and debate and add to the conversation and our perspectives were honored” (Phoebe, Interview, 12/13/13). Fran attributed in part her career choice and concurrent teaching beliefs to her father, “I grew up IBM engineer father who was a problem solver so I grew up being a problem solver. If
something was broken then you took it apart, you tried to figure out why” (Fran, Interview, 12/13/13).

Both Patrick and Hannah had at least one parent who was a teacher. Patrick shared stories about his mother who was an educator and who had an influence on his own decision to become a teacher:

When people asked me what I wanted to do… I knew the answer was ‘teacher’ because I had seen how much she (his mother) enjoyed her job. And she had gone through a transformation herself of being a teacher … she spent five years as an administrator and then left that to go back to teaching … and just being a part of that transition for her and why she made the choice to go back into the classroom … and hearing my dad talk about my mom being a teacher … how he saw the value in satisfaction she got at the end of the day of making that impact … had a huge influence on me and I would say still does.

She’s still teaching. (Patrick, Interview, 12/11/13)

Hannah, also raised by educators, was one of the few participants who could definitively state an early desire to become a teacher within her own identity as a young student:

When I was little we always had one of those old school desks and we always played teacher down in the backroom in our house. I always loved playing teacher and then as I progressed through school I was always kind of that helper in the classroom. Helping students that maybe had some sort of disability. I always tried to make them feel welcome. Then as I progressed, I just realized I did love teaching. I wanted to make a difference, particularly in young women's’ lives, so that they would be strong women in a
society where at that time—and it still is—somewhat dominated by men in higher level positions. (Hannah, Interview, 12/6/13)

Hannah spoke about the impact that her mother had on her values which were further strengthened at the time of her mother’s death.

At my mother’s calling hours at her funeral, we had thousands of people. It was standing room only. It was amazing. On a snowy day, guests were taking umbrellas and passing them down the line so that people wouldn't get wet. People waited two hours, four hours, to see all of us. That’s the effect she had and my father had on their community. So I want to do that too. I want to have a positive impact on people’s lives in the community I live in. (Hannah, Interview, 12/6/13)

Some participants discussed experiences that shaped their beliefs. For example, Bethany chose to study abroad in college. Following college she volunteered for the Peace Corp. She credited each of these events as defining moments in the formation of her beliefs, “I became enamored with the idea of the concept of communication and then the concept of (using) communication to be able to teach someone something really well” (Bethany, Interview, 12/11/13). Sarah shared her experience with her grandfather teaching her to fly a plane which she credited with learning how to overcome fear, “I loved the feeling of fear turning to joy and that is a major component of what learning is for me” (Sarah, Object-Memory Focus Group, 1/8/14).

In my review of the literature, I found no research which focused specifically on the impact that being a parent has on the teacher and their beliefs about teaching and learning. The participants in this study who were parents themselves identified this role as a contributing factor
to their teaching beliefs. For example, Bethany stated that becoming a parent allowed her to become more confident as a teacher and more flexible in the classroom:

Being a parent ... I don’t take things as personally as I maybe once did either. Where maybe now I can take myself out of a situation and really focus on behavior rather than getting really upset about the interaction. Just really focusing on what happened and deal with that occurrence. (Bethany, Interview, 12/11/13)

Sarah also discussed the impact that parenting her own children had on her teaching beliefs:

My children have definitely led to me to realize that I used to think that I had to be nice when I walked into the classroom and smile and just be the sweetest person and that was the most important thing and (after I became a parent I) realized that students need structure, students need an understanding of what the expectations are for them. They need the freedom to go off in their direction and feel strength in the directions they choose and feel supported yet have a reason or goal in place to go after and a lot of that stemmed from my need to work with my own children and develop my own relationship with them. (Sarah, Interview, 12/20/14)

Mark cited parenting as a key influence as well, “being a parent is a 100% great thing for teachers” (Mark, Interview, 12/5/13). He went on to select a photo of his children to share during the Object-Memory exercise to show “how much I have changed as a teacher as a result of becoming a parent. My (children) are ... very different learners ... my observations of their journey as learners and my love for them as a parent has transformed my views of students as they come through my classes. I believe I have a greater understanding of the learning process as
I witnessed the struggles and successes of my own children” (Mark, Object-Memory Focus Group, 1/8/14).

Hannah began questioning her practices around homework after becoming a parent. She experienced firsthand the struggle that students and families have in finding a balance between homework and extracurricular activities while still making family time a priority:

What is the purpose of homework? Because we have all been busy, right? I think the society we have created … we get our kids involved in a lot of things. And they are all great things. But they also have to be kids. And so if you have a child in an extracurricular activity, and they have a ton of homework, where is that family time? Where is that sitting down at the dining room table? And having a conversation with them about their day … being a mom definitely made me realize that having homework every day. Is it really worth it? (Hannah, Interview, 12/6/13)

Some studies that have examined the formation of beliefs among pre-service teachers have found a connection between the formation of beliefs and the teacher’s personal lives. Alsup’s (2006) study of teacher identity discovered a relationship between the pre-service teachers’ beliefs and their personal lives. She used the term *home discourse community* to describe the teacher’s personal experiences and relationships, stating, “The professional does not exist in isolation from the personal self and associated relationships, even if the teacher does not consciously acknowledge the connection.” Alsup goes on to say that, “the family and community into whom the individuals are born determine their social class, ethnicity, race and ideological frameworks or foundational beliefs. These biological and material realities result in ideologies and discourses that constitute an individual’s identity” (2006, pp. 106-107).
I found little research that examined the connection between teaching beliefs among experienced teachers and their personal lives. In particular, the role of parenting in the evolution of a teacher’s teaching beliefs was not present in my critical review of the literature. I attribute this to the fact that much of the research on the formation of teaching beliefs resides in formal teacher preparation programs when many young teachers are not yet parents. This is an area worth further investigation within the study of formation of beliefs among practicing teachers later in their careers.

**Challenging Beliefs in Teacher Education Programs**

The participants in my study followed a variety of paths to becoming licensed teachers. Mark, Patrick, Hannah, Gail, Sarah, Lisa and Phoebe attended some form of formal post-secondary teacher preparation programs, while Fran, Bethany, Samantha earned their teaching license through alternative licensure programs. Among those who attended a formal teacher preparation program, some credited their teacher preparation program with introducing them to new ideas or providing an opportunity for them to further develop their core beliefs through connections to research, pedagogy and curriculum theory. Others stated that their teacher preparation program did little influence on the formation of their beliefs and pointed to other experience in their formal post-secondary learning, including undergraduate programs, study-abroad programs or continuing education as having a greater influence on their beliefs. However all were able to point to a specific point in time as their teacher preparation period and reflected on ways in which that experience helped to form their teaching beliefs.

Hannah shared recollections of her teacher education experiences and how she believed that they contributed to the development of her teaching identity, “my teachers would teach a lesson about how to teach using the strategies they were teaching. So you could see it, and you
hear it, and then eventually you would have to do it yourself” (Hannah, Interview, 12/6/13). She reflected on the program’s structural design and how it supported her personally and professionally:

My classes were very small and very individualized. I think because I could get that individual help it made me realize how important that was. They were always willing to help me. I could go see them at any time. It was an open-door policy … I was able to build my leadership skills and be that strong, confident woman because I was able to take on those roles where I’m not sure if I went to a larger university I would have been as comfortable. (Hannah, Interview, 12/6/13)

Phoebe also spoke about the benefits of attending a small program and the lifelong relationships she built there, “I actually had a really good program. It was a small program. I had a great student teaching experience. I had program that was vital, that was changing” (Phoebe, Interview, 12/13/13).

Lisa discussed finding people in her program who aligned to her beliefs and those who did not. She was grateful for finding a supervisor who inspired her. “His progressive ideas definitely made an impression on me” (Lisa, Interview, 12/11/13). However when Lisa was assigned to a teacher for her field experience, or teaching internship, she quickly realized that this teacher would not be a good match for her beliefs and advocated that she transfer to another classroom that would more closely match her beliefs. Her program provided the flexibility to support her request.

I started my work with her and realized right away that it really wasn’t going to work for me. She was very structured in the classroom, very linear and it just didn’t feel like a
good match. So I started advocating for making shift which was awkward. But I knew that it was my experience, that it was a year-long and that I wanted to make the most of it. I had been observing (another teacher) and I was drawn to him—his personality, his way with kids. I and asked him if he would take me on as an intern and he said, ‘absolutely.’ I had a phenomenal experience with him. His degree of honesty with me as a teacher and his interactions with kids, coupled with his high expectations for them was just transformative. (Lisa, Interview, 12/11/13)

Patrick shared mixed feelings about his teacher preparation programs. First he described his experience with an undergraduate teacher education program:

The undergraduate teacher program really turned me off actually. It seemed like when we sat in round table discussions (they were suggesting that) teaching is a flexible approach—(that it) can be tweaked and catered for your style as a teacher. But when it came down to it there was a right answer and if you weren’t following their beliefs then you were wrong. So I struggled in (that) program. It was not formative for me as far as I relate to it now. I don’t look back on that time as providing a reference point other than I don’t want to prescribe to what they were telling me teaching is. (Patrick, Interview, 12/11/13)

However Patrick had a very different experience later in his career when he returned to a graduate teacher education program.

Our first course was creative and critical thinking and we went through just ways to set up environments within your classroom so that you can allow that to happen. I learned
that creativity can be taught. Critical thinking can be taught. So I was hooked right away because I could apply it to what I was teaching and it was interdisciplinary.

Patrick went on to explain how these experiences influenced his own teaching beliefs today, “It has to be real for students. I don’t think I could eloquently speak to why it goes back to that (program). I just know that I was really engaged in that process and I believed in what they were telling me. (Patrick, Interview, 12/11/13)

Sarah identified areas could also identify how her teacher preparation supported the development of her beliefs and areas where it did not:

I took a Philosophy of Education course, which was an interesting class. Just to hear other people think differently was fascinating and that helped me to realize that my thoughts were my own and that I could have some different thoughts than other people. I think that was one of the first empowerments that I got from a fascinating education instructor there. I also took a methods class where we started to look at how we would grade papers. But aside from that, aside from those two classes I do not remember much about my educational background at the college. (Sarah, Interview, 12/20/13)

She went on to discuss the implications these experiences had on her early teaching career, “I was not prepared to go into classroom, totally unprepared to go into the classroom” (Samantha, Interview, 12/6/13).

Mark also had some positive and negative experiences with his teacher preparation program and could identify the impact that his experiences with the program had on his beliefs:
My teacher program was horrible. It was horrible. There was only one that I’ll talk about that changed my whole view of teaching, and he is in opposition to every single other professor that I had ... He was the most amazing teacher. He starts out with the one premise of taking a kid from where they’re at ... and you don’t teach history, you teach a child, and they learn history. I never have forgotten him. It’s all I needed. I didn’t need anything else. That and student teaching and I got all that I wanted because the rest of the classes were just turmoil. We never did any studies on pedagogy. We never did any lesson plan prep. (Mark, Interview, 12/5/13)

Fran, Bethany, and Samantha earned their teaching license through alternative licensure programs and shared how this experience contributed to their teaching beliefs. Fran and Bethany had found themselves in less conventional teaching environments where they found their passion for teaching then chose to pursue licensure. Fran served as a supporting instructional role in a public school when she determined that she wanted to become a teacher. Bethany, while working abroad, found herself in informal teaching environments and when she returned home decided to pursue teaching. Samantha made the conscious decision to leave a very successful professional career in the private sector to follow her desire to teach. In all three cases, the participants did not experience traditional teacher education programs but spoke about the reflective work in their portfolio work that they were required to undertake as part of their alternative licensure process.

This study suggests that while the teacher preparation experiences played some role in the formation of the participants’ teaching beliefs. However participants were very aware that the degree to which the program influenced their beliefs was largely dependent on how closely the program matched their own early beliefs or provided enough flexibility and support for the participant to further develop their beliefs. Further, the participant experiences varied greatly
based on the structure of the program, the other participants in the program at the time, the professors they encountered and the teacher(s) with whom they conducted their field experience.

There is considerable agreement among researchers that pre-service teachers enter teacher education programs with a set of central teaching beliefs which were established in their individual schooling experiences. In fact Pajares (1992) argues that “beliefs about teaching are well established by the time a student gets to college” (pp. 325-326). Pajares argues that the earlier a belief is incorporated into the individual’s belief structure, the more difficult it is to change.

Belief change during adulthood is a relatively rare phenomenon, the most common cause being a conversion from one authority to another or a gestalt shift. Individuals tend to hold on to beliefs based on incorrect or incomplete knowledge, even after scientifically correct explanations are presented to them. (p. 325)

However, there is a lack of consensus about the degree to which teacher education may influence those early teaching beliefs. Goodman (1998) explores beliefs among pre-service teachers and stated the complexity of teacher education programs trying to influence those beliefs, stating:

The dynamics that underlie the development of a given student’s practical philosophy of teaching are both subtle and complex. They involve prior conceptions based upon early childhood, school, and societal experiences; emotional reactions to present professional educational experiences; thoughtful consideration of new ideas; and future expectations. (p. 131)
Goodman describes the beliefs that pre-service teachers enter their program as “intuitive screens” and argued that if teacher education programs hope to influence teaching beliefs then the program must be intentional about understanding and helping the teacher become self-aware of their own beliefs (1988, p. 134). Fenstermacher (1978) argues that the role of teacher education is to help teachers reflect upon their more subjective beliefs about teaching and learning against objective knowledge. Bullough (1997) suggests that “teacher identity--what beginning teachers believe about teaching and learning and self-as-a teacher--is of vital concern to teacher education; it is the basis for meaning making and decision making” (1997, p. 21).

Hammerness et al. proposes that teaching beliefs are ingrained in teachers prior to attending teacher preparation programs.

Prospective teachers come to the classroom with preconceptions about how the world and teaching works. These preconceptions, developed in their ‘apprenticeship of observation,’ condition what they learn. If their initial understanding is not engaged, they may fail to grasp the new concepts and information, or they may learn them for purposes of a test but revert to their preconceptions outside the classroom. (2005, p. 366)

Darling-Hammond (2012), followed this line of thinking in her study of exemplary teacher preparation programs, suggests that a common component of these programs is the support of pre-service teachers with confronting the beliefs and assumptions they bring to the program. Describing the programs, she states that all the programs emphasized the importance understanding their own educational beliefs and values and how they were formed.

Richardson’s (2003) review of the literature proposes that when pre-service teachers enter a teacher preparation program that does not match their beliefs, their beliefs do not
necessarily alter to adopt the program’s philosophy. In fact initial teaching beliefs tend to be solidified as a result of interacting with opposing philosophies rather than be altered by them. (2003, pp. 9-10). Weber and Mitchell (1996) in their study of pre-service teachers’ images of teaching find that they are developed early and present powerful influences over a teacher’s early identity (1996). Cochran-Smith (1991) also suggests that pre-service teachers are rarely changed as a result of experience in academic settings in teacher preparation programs but have a higher chance of being influenced within field-based student teaching environments.

The findings in my study suggest challenges in altering pre-service teacher beliefs once they have been established after years of establishing early beliefs through their ‘apprenticeship of observation’. The findings suggest that there are limitations to a teacher preparation program’s ability to influence a pre-service teacher’s beliefs. Further, when the program aligns to their beliefs or when the program provides some flexibility, then the new teachers experience an opportunity to take their current beliefs and develop them further. However, when an individual encounters a program or elements of a program that do not match their beliefs, their beliefs are not altered as a result of that experience. Darling-Hammond argues that either way, the experience in teacher education has the potential to cause for a disruption in the Lortie’s apprenticeship of observation phenomenon (2006). A teacher education program has the potential of causing participants to reflect upon the beliefs and assumptions they may have collected in childhood.

**Supporting Beliefs through Mentoring**

Participants in this study each identified one or more individuals who served as a formal or informal mentor to them and used the term *mentor* to describe that relationship. The word is defined as “a wise advisor or trusted guide” and is derived from the Greek origin “mentos’
meaning intent, purpose, spirit, passion” (Dictionary.com, n.d). In many cases participants described mentors that they sought out on their own and maintained a mentoring relationship with them over time. These individuals came from a variety of settings including teachers or coaches in high school, family members, university professors, professional colleagues and supervisors.

Lisa talked about the important role that mentors played in her life and how mentors supported, challenged, and ultimately helped her to form her teaching beliefs:

As I read my transcript notes, I found myself talking mostly about my educational mentors, the people that have challenged me, taught me, inspired me, and pushed me to take risks, those that have motivated me to continue learning and improving. I felt deeply moved—touched even—as I talked about former students, of relationships I had developed with professors, student teacher mentors, assistant principals, colleagues, and curriculum directors, and it dawned on me, had I not taken the time to reflect and to share my experiences, I would have missed out on the opportunity to once again feel invigorated by the power of human emotion and to regain perspective on why I remain committed to fighting this good fight. (Lisa, Object-Memory Focus Group, 1/8/14)

Lisa identified herself as someone who actively sought out mentors throughout her career and continues to do so. She reflected back on the many mentors over the course of her career, including professors, her university supervisor in the education program, her cooperating teacher and the assistant principal in her first teaching assignment. “I feel like I’ve been really lucky to have people like (them) that have continually nurtured me and continued to push me professionally” (Lisa, Interview, 12/11/14). She looked for mentors in people who she respected,
who would challenge her and give her critical feedback. Lisa continues to seek out mentors and colleagues who challenge her and give her critical feedback.

I’ve had three or four really honest mentors in my life that have pushed me, seeing something in me that I might not have seen in myself and pushing me into the next phase. I’ve been really lucky to a) be somebody who wants constant feedback and b) who has been able to build relationships with people who really know their stuff and care enough about me and see something in me in the way of potential that’s been able to motivate me to keep growing. (Lisa, Interview, 12/11/13)

Phoebe found mentors in her teacher education program, “there were two really highly wonderful people running it and one has been my lifelong mentor until she died. Mentors are a large part of your success. The program was great. I mean these two women were amazing” (Phoebe, Interview, 12/13/13). Gail listed three women who served as mentors to her throughout high school and her post-secondary studies:

I specifically look back at three women who really kind of formed me--other than my mother: a teacher in high school, my coach who I had for three years in two sports and (my college professor). I had three women in my life that pushed me way beyond what I was capable of. And I didn’t really like them often! And I get emotional when I think about these women because they really formed who I am and that’s important. (Gail, Interview, 12/5/13)

Mark cited several mentors who influenced his beliefs, from his athletic coaches to a college professor and professional colleague, who served as his department head early in his career. Describing him as a “master teacher” he attributed this colleague with introducing him to
the ideas of multiple intelligences and format teaching. Similarly Gail and Sarah both identified a colleague, using the term mentor, who inspired their teaching. For Sarah it was also her department chair that invited her to join in curriculum development and introduced her to differentiated instruction through professional development opportunities. For Gail it was a colleague whom she noticed had a high degree of enthusiasm in teaching and a focus on the individual student. In all three cases, the participants expressed that they were drawn to these individuals because they found some alignment to their own teaching beliefs.

There has been an increase in research on teacher mentoring in the last twenty years; however the focus has been primarily on the technical components of mentoring programs and the transfer of teaching knowledge, defined as content or instructional strategies, to the novice teacher (Cochran-Smith & Paris, 1995; Feiman-Nemser, 1996; Gratch, 1998; Hargreaves & Fullan, 2000; Little, 1990). Little (1990) conducted a review of the literature related to teacher mentoring, finding that the implementation of formal teacher mentoring in the U.S. began in the 1980’s and was driven largely by state and local policymakers seeking an organizational solution to a teacher retention problem. Success of the mentoring experience was dependent on several factors, including the novice teacher’s willingness to accept mentoring. “The success of mentorship thus rests in part on the protégés' willingness to be mentored, whether directly or indirectly. Individuals' capacities, beliefs, and incentives do not account satisfactorily for local success” (p. 313). Every participant in this study identified mentors whom they credited with influencing the formation of their beliefs or further supporting and strengthening their emerging beliefs. Some mentors play formal roles as mentors assigned to the teacher within their professional capacity, such as professors, field-based supervisors, department heads or teaching
mentors. However others took on the mentor role informally, with the relationship being initiated either by the mentor or the participant.

**Refining Beliefs within Professional Contexts**

Each participant cited specific professional environmental factors, including structural or systemic environmental influences within schools in which they had been or were currently employed, professional learning in which they had engaged, or specific external influences such as educational legislation, changing demographics, school or district initiatives which influenced their beliefs, either positively or negatively. For example, prior to her current position at Massena High School, Gail spent several years working in international schools. She spoke about the impact that this experience had on her beliefs:

> Having worked in an International Baccalaureate school … they have a very strong and strict doctrine that everybody pretty much follows. And because I was in an international private school you sign a contract. And if at the end of the two years you don’t fit in with ideology or the ideology doesn’t like you or whatever, you are asked to move on. Basically, or you choose to move on. So you do end up typically with groups of people who really do believe in what they are doing. They are all kind of more or less working together toward a similar goal. And it wasn’t perfect but it was interesting. And I felt that it was working. And it was hard because you had kids from all over the world speaking different languages, from different backgrounds and yet there was this umbrella that held us all together. (Gail, Curriculum Ideology Focus Group, 1/15/14)

Similarly both Bethany and Mark described their experience as early teachers in their first teaching assignment. Bethany found her experience working in a small private school
formative because she was drawn to their approach to project-based learning and service learning. Whereas Mark found that his first teaching position was in a school that did not match his beliefs and decided to leave the position to seek out a school that would allow him to practice his beliefs.

Patrick discussed the environmental influences and how they had an impact on his work within his program. He teaches elective courses and often finds himself fighting for resources for his program.

If you have an institution or community or a school district that says we value (a program) then it can go to where the support mechanism is so that you can really get that tangible feeling that I experienced (in a similar program) in my high school. Because (my content area) is no longer a question of (whether or not we) are we supporting it (at Massena), you see all those great things happening. But if is not supported then it feels like we are just learning this (thing). There is no plasticity in the learning because it is just survival to do what you have to do. I would say that (having to fight for resources) would be something that has definitely challenged my thinking. (Patrick, Interview, 12/11/13)

Some environmental influences were drawn from outside of the school. Lisa reflected on external change events that all teachers are currently experiencing. She discussed recent state legislation such as Vermont’s adoption of the Common Core State Standards (CCSS) and the passage of a new piece of state legislation, the Vermont Education Quality Standards (EQS) which requires high schools to implement Personal Learning Plans, and to reorganize curriculum and graduation requirements within a Proficiency-based Graduation Requirement model. She
discussed the impact that these types of change events have on teachers. “So many people feel like things are imposed on them in schools … without any opportunity for dialogue, for learning, for reflection and for new inputs.” She went on to explain typical teacher reactions to these events, “you kind of come at something like that from a place of reaction” (Lisa, Curriculum Ideology Focus Group, 1/15/14). As a teacher leader she considered school-wide implications:

“I just think because there are so many different ideologies, and so many different experiences when big things come down the pike, like CCSS, like proficiency based learning, we very much shut down because either we don’t know or it doesn’t feel like it necessarily matches what we believe but really I think often we’re not really sure what we believe because we don’t spend enough time reflecting. (Lisa, Curriculum Ideology Focus Group, 1/15/14)

Many participants listed formal professional learning such as continuing education courses, post-baccalaureate experiences and workshops, as well as less formal professional learning opportunities found within their school, including working with colleagues and reading research. Sarah discussed the critical role that attending professional conferences and other professional development opportunities have had on her teaching beliefs:

It opened up a whole new level for me of understanding for me—just how varied instructional practices are and how exceptionally important they are. I was just eating this stuff up. And got book after book after book and read. My methodology of instruction changed from me being in front the kids and throwing it out to the kids, and having them practice it, doing homework and giving it back. (Sarah, Interview, 12/20/13)
Lisa reflected on her recent exposure to professional development within a series of professional learning related to secondary transformation within her new role as teacher leader.

I feel like I’m entering into a new phase where I don’t yet have the language or the knowledge to articulate where we are headed. But I can see that my beliefs are being both challenged and confirmed. And I think again the constant exposure to conversations around, whether or not at the (conference) or sitting at (conference) or being exposed to (research). I think those opportunities constantly challenge your teaching beliefs (Lisa, Interview, 12/11/13).

While there is little research that explicitly connects the degree to which the teacher’s professional context contributes to their teaching beliefs, I found that this phenomenon is similar to that of the teachers’ experience in teacher education. Like their experience with teacher education, in this study participants sought out environments in which their professional context either matched their beliefs or provided enough flexibility for them to practice their beliefs. When their beliefs were aligned with their context they used the opportunity to deepen their beliefs through practice, whereas when they encountered contexts that did not support their beliefs they found ways to work around their context or they left the environment to pursue one that better matched their beliefs.

A great deal of research has been conducted on how school context and culture influences teacher identity throughout the teacher’s career (Hargreaves, 2002; Little, 1982; Mclaughlin, 1993; Waller, 1932). In his Teacher Belief Study Nespor describes this as ‘contextual constraints encountered in the work contexts of teaching” (1987, p. 9). In this study participants provide evidence that the new and experienced teachers’ beliefs can be both challenged and strengthened
by the professional environment in which they teach as well as external change events such as state and federal educational reform legislation.

Summary

Participants in this study shared openly about their teaching beliefs and the factors that they felt contributed to the formation of their teaching beliefs. They included:

- Establishing beliefs through childhood schooling experiences
- Expanding upon beliefs through personal relationships
- Challenging beliefs in teacher education programs
- Supporting beliefs through mentoring
- Refining beliefs within professional contexts

Thematic analysis generated this series of emergent themes related to teaching beliefs, those factors that influenced teacher beliefs and the relationship between beliefs and practice. These were described in Chapters Four and Five. I will now explore three of the ten participants’ stories using a narrative inquiry approach. Narrative inquiry allows the researcher to dig deeply into individual and contextualized experiences of participants and generate rich and vivid stories. Together these two approaches have the potential of producing a complementary and rich understanding of the researcher’s questions (Maxwell & Miller, 2008).
Chapter Six: Personal Narratives

“Les hommes de chez toi,” dit le petit prince, “cultivent cinq mille roses dans un même jardin ... et ils n’y trouvent pas ce qu’ils cherchent... et cependant ce qu’ils cherchent pourrait être trouvé dans une seule rose ou un peu d’eau...”

“People where you live,” the little prince said, “grow five thousand roses in one garden... yet they don’t find what they’re looking for... and yet what they’re looking for could be found in a single rose, or a little water...”

(de Saint-Exupery, 1943, p. 70)

This study was designed to explore the following overarching research question: **How do teachers articulate their beliefs about teaching and learning and what are the implications for practice?** Additionally, three sub-questions provided the framework for data collection and analysis. Chapters Four and Five provided findings derived from thematic analysis and answered the following two sub-questions: **How do teachers account for their teaching beliefs? How do teachers describe how their beliefs are formed?**

The strength of thematic inquiry is that it uncovers commonalities across the experiences of multiple participants. However, the process strips away context and thereby removes the rich details of particular/individual experiences; whereas narrative inquiry invites context into both the analytic process and the representation of a participant’s story. In fact, narrative inquiry has often been used as an effective approach for exploring teacher thinking, teacher knowledge and teacher beliefs (Connelly & Clandinin, 1990; Elbaz, 1991; Grumet, 1990; Shulman, 1987). Elbaz stated that “story is the very stuff of teaching, the landscape within which we live as teachers and researchers, and within which the work of teachers can be seen as making sense” (1991, p. 3).

Narrative method, in its simplest terms, is the description and re-storying of the narrative structure of varieties of educational experience. A researcher’s narrative account of an educational event may constitute a re-storying of that event and to that extent is on a
continuum with the processes of reflective re-storying that goes on, one way or another, in each of our educational lives. (Clandinin & Connelly, 1989, p. 2)

Narrative is both a process and a product. As a type of literary genre, narrative includes literary elements such as character, plot, setting and point of view (Kramp, 2004). Bruner (1987) suggests a constructivist view of the narrative which is built on the notion that stories do not simply happen but are constructed by through a process of selective memory recall, and then interpretation and reinterpretation over time, in order to make meaning. In this study participants drew upon memories to construct self-narratives, or autobiographies, to describe how their beliefs were formed. “The story of one's own life is, of course, a privileged but troubled narrative in the sense that it is reflexive: the narrator and the central figure in the narrative are the same.” Bruner suggests that there is no other way of recounting “lived time” well, other than through narrative (pp.11-13).

Due to the nature of the research topic and based on my prior research, I knew that memory would play a significant role in the analysis and construction of the narratives. As the participants recalled how their beliefs were formed and relayed instances of when they were able to practice their beliefs, they drew upon memories. Gee (1991) examined the role of memory in narrative and oral storytelling. “Personal memories that are unrehearsed disappear, but to rehearse them means to retell them in a narrative fashion. This retold narrative will … be shaped by the larger narrative context of the person’s ever-changing past, present and future” (p.4). Gee also addressed the role of social construction in narrative memory, suggesting that personal memory “will also be shaped by the narratives others tell in the social groups to which the person belongs. And these too are ever-changing” (p.4). The role of memory is not to provide an
accurate historical representation, but to allow the participants to make meaning of their own history, in this case the journey of the formation and practice of their teaching beliefs.

Seeking that depth of inquiry and the opportunity to construct full narratives of some of my participants, I moved beyond thematic inquiry and conducted a narrative analysis of three participants. This allowed me to examine individual experiences more deeply and address the third sub-question: *how do teachers relate their teaching beliefs to their perceptions of practice?* I developed the narratives using ghostwriting to (re)present (Rhodes, 2000, 2001) the stories of each of the three participants. Ghostwriting, as described by Rhodes, is a practice where the researcher creates a narrative that tells the participant’s story but implies the relationship of the researcher involvement in the interpretation of the data (2000, p. 514). This calls to question the role of the researcher in the development of the narrative. Richardson points to the power of relationship between the researcher/writer and the participants about whom he or she writes stating, “no matter how we stage the text, we—the authors—are doing the staging. As we speak about the people we study, we also speak for them” (Richardson, 1992 as cited in Rhodes, 2001, p. 4). This leaves the researcher in a position of constructing narratives on behalf of the participants using an interpretive frame, hence the resulting narratives are neither based purely fact nor fiction but a (re)presentation of the story.

My first step was to select three teachers from the ten who participated in the study. I began the selection process by returning to the data. I re-read each individual and focus group interview and listened to the audio tapes. Free from the task of looking for patterns and themes, I immersed myself into each life story as expressed by the participants. I looked at language around plot, including any turning points identified by participants. I examined the way that each participant reflected on their beliefs, the influences (events, people) that they attributed to the
development of those beliefs and their statements about the connection between beliefs and practices. I selected three participants using the criteria of: richness of detail of character, cohesion of plot and effective and illustrative use of metaphor. Samantha used metaphors related to journey and travel represented by a photograph of a plane. Bethany’s metaphors focused on observing and looking outward represented by a kaleidoscope. Finally Lisa used metaphors related to looking inward and self-reflection which was represented by a pocket mirror. While all three participants are women, gender was not part of the selection process. In short, of the fifteen teachers invited to participate in the survey and the ten who agreed, only two participants were men, so the selection of three women for personal narratives was unintentional.

Once the three participants were selected, I began my narrative analysis by immersing myself in their data which included interviews, focus group discussions, a written essay, visual data in the form of the participant’s teaching belief object and my own researcher memos. The interviews and focus group discussions were designed to encourage participants to recall aspects of their own life stories relevant to their teaching beliefs in a way that made sense to them—an interpretation of their own experiences. I looked beyond their statements about events, and examined each participant’s interpretation of the events. I paid particular attention to any key turning points identified by participants. I made notes to record the key ideas of the participants’ stories, including character, setting, plot and themes. I examined the visual data, the written essay provided at the Object-Memory Focus Group, and the participant’s completed Curriculum Ideology Inventory which was completed during the Curriculum Ideology Focus Group. Using all of the data I looked at the way that the participants interpreted their own stories as they reflected on their beliefs, the influences (events, people) that they attributed to the development of those beliefs and how they related their beliefs to their practices.
At this stage, I decided on a general narrative structure upon which I would write the narratives, ones that I felt would best honor the genuine voices of the participants. First, given the fact that the research was focused on the formation of beliefs over time, I wanted the narratives to follow a basic chronological plotline, similar to that of a memoir or autobiography. Because the data from the interviews and focus groups did not always follow a strictly chronological order, but rather skipped around through time meant that I had to reorganize the data into chronological plotlines while working to retain the characters, themes, plot, and setting from the participants’ data. I did this by drawing out a basic plotline beginning with the participant as a child and moving through the years to present day, marking key events along a timeline. First, I recorded key characters, contexts and themes that the participants chose to convey their story. Second, in another attempt to honor the participant’s voice, I chose to emphasize the participant’s use of metaphors in each narrative. I believe that the use of metaphors was an unconscious technique that allowed each participant to make meaning of her beliefs and how her beliefs were formed. I took this as a form of participant interpretation. By highlighting the participant’s use of metaphors I hoped to include vivid imagery in each story and call attention to the genuine voice of each of the participants in the narratives.

As I developed each narrative I frequently referred back to the data, including my own researcher notes to ensure that the strands and details of each story were consistent with the data. Each narrative underwent a process of review and rewriting several times winnowing down lengthy narratives to focus on salient points and emphasizing specific strands in each story. The process included member checking which was done by sharing the narrative with each participant for her feedback. This resulted in three narratives that are co-constructed by me, the researcher, and the participants. As I developed each narrative I frequently referred back to the
data, including my own researcher notes to ensure that the strands and details of each story were consistent with the data. Maintaining participant voice was important to me, so I incorporated some verbatim participant words for which I use bold font to distinguish verbatim quotes and my own *ghostwritten* text. Digital photos of the participants’ objects from the Object Memory Focus Group are included with any personally identifiable images blurred to ensure anonymity.

Each narrative is followed by a short discussion/interpretation from my researcher perspective. I started by summarizing each narrative, but struggled with the results because I knew more about each of these participants as a result of my working relationship with them as their curriculum director. I felt restricted by the information in the narratives alone because I knew about other contextual information about them. Ultimately I made the decision to include this information resulting in a more comprehensive understanding of the participants' stories. The ghostwritten narratives incorporated the voices of the participants, and the summaries that followed each narrative incorporated my interpretive researcher voice and my curriculum director voice which enabled me to add additional information that I had because of my work with them which I believe added a richness and depth to the work. I close out the chapter with a summary that ties together the findings from each narrative.

**Samantha: Teaching as a journey**

*When I was a child my grandfather owned two planes and he would take us on long plane trips on a regular basis. I hated flying in that plane! I was always terrified and I think my grandfather could sense that. During one of our visits, he took me out to the airport, just the two of*
us. We didn’t talk much on the way, but I sensed that something was different about this trip.

When we arrived at the plane, he put me in the front seat and he sat in the back. After we took off he put his hands on my shoulders and just said, “It’s yours now.” We flew all around the beaches of the Gulf Coast at low altitude with the doors open. I was scared, excited and terrified! But I also knew that I could trust him and that he would step in and take over if I needed him to and that allowed me to take a risk and overcome my fears. I loved that feeling of fear turning to joy and that is a major component of what learning is for me.

I know that my teaching beliefs started when I was young. I loved music. When I was in school I was in every band we had. Music was creativity. Music was a community. It was holistic. It made me cry. It touched my heart. I also loved exploring nature and the world around me. I explored reason and the theory of everything. I was interested in physics, but less so in a scientific way, and more so in a philosophical way. In high school, I was a good student; however, I didn’t care about that. I was smart, but 90 was my goal and I was able to maintain a 90 average without trying hard. But teachers didn’t take the time to understand me. I remember being taken out of my 9th grade algebra class because the teacher said I wasn’t cutting it. I was heartbroken. It was devastating. Kids were grouped by ability back then. I didn’t understand why she did that. I wasn’t afraid of the challenge, but she took that decision away from me. As a teacher now I still think of that teacher’s decision to move me down a level. I think about the impact. I mean it changed my entire life, so now I am deeply aware of the impact of decisions like that.

When I went to college I discovered calculus and it changed my life! I loved it! It was complex and imaginative. I studied physics in graduate school, but after I graduated I found that didn’t like working in research. Science is based on the assumption that you can look at nature
as an objective observer, but I don’t think you can separate the question from the questioner. It also assumes that the human brain can wrap itself around reality in a linear way and I don’t think reality is linear.

I decided to leave my job. I bought a sailboat and took off to explore the world. It was amazing—a great adventure. But a funny thing happened while I was out there floating around on my boat. I discovered something about myself. It turns out that I’m not the loner that I thought I was! In fact, I discovered that I like society a lot! I didn’t want just to be alone in nature. I wanted to be part of a community. I deeply wanted it. I started thinking about being a teacher. I worked with a local high school and constructed my own student teaching environment. It was very stressful, but it was important to me to be part of a community and to help students learn to overcome their fears and find their passion in life.

My main teaching belief is that everyone is on their own journey and overcoming their fears. Learning should be about trying your best to rid yourself of preconceived notions and to always be open to growth and change, even if it involves some discomfort or fear. In the classroom, I encourage my students to persevere. I’m trying to get them to see the joy that comes from solving something that wasn’t easy at first. Learning is full of such opportunities and I do my best to create a classroom environment that encourages exploration and growth. I believe that students are individuals and that they are all on their own path. I believe that life is full of adventures and that as teachers it is important that we help students see the beauty of the world.

If I could design a school that represented my teaching beliefs I think it would have to involve travel. I would take kids places, introduce them to people who actually had done things
and then we’d sit with each other and talk about what they’d seen. As I teacher I want to focus on the learner’s growth and I want each person to be an agent of change for whatever he or she thinks the future should be.

I also believe in the power of creativity and curiosity and I know that may seem surprising coming from a math teacher. In fact I’m a little frustrated with teaching math right now. People think that math is about right and wrong. Some people like that about math because they can get the right answers, but that’s the least interesting thing about math. The world doesn’t work that way. There is no one absolute truth. The best part of math is the creative part. And that can make people uncomfortable.

I think I’m usually able to practice what I believe. As a teacher I believe that it’s critical that I take the time to develop a relationship with each student and that I build a respectful, trusting classroom community. Learning happens best when the student trusts me and trusts their classmates. I tell the students on the first day that the classroom runs on mutual respect. I will always treat them with respect and I expect the same in return. Also I expect the students to respect each other. I want my students to trust me, but honestly, I find the way our curriculum is set up does not encourage trust. It’s difficult if we’re going to get through all the content to open up a place where students truly trust that it’s okay to make mistakes and that is an important part of learning. I want to help the kids to grow and they can do that by facing the things they fear. People tend to be afraid of math so I try to present it in a way that, “Okay you’re afraid of it, but you need to grow so you need to get past your fears.” When you can face the things you are afraid of and take a risk, then the next time you face a fear you are that much stronger.
Teaching against the grain. Samantha has a humble, quiet and thoughtful demeanor. She is a keen listener and is highly intelligent. An incessant learner, Samantha is intensely curious about the world around her. Samantha’s teaching values reveal a strong belief in honoring the individuality of each student and in fostering a sense of curiosity in her students. She is a true model of lifelong learning and is continually exploring ways to improve upon her teaching in order to meet the needs of each individual student. Samantha challenges her students to take risks and to explore knowledge and the world around them in search of their own truths. She places a great deal of emphasis on the importance of community and relationships. She acknowledges the role that trust plays in the learning process, and works hard to earn the trust of her students so that they can feel comfortable taking risks. She believes strongly in the power of creativity and often incorporates the arts into her instruction.

Samantha has great self-awareness and knows where and how she developed her teaching beliefs over time. Using a journey metaphor Samantha was able to identify specific points in time and professional and personal contexts that helped to form her beliefs. Samantha’s beliefs were developed early which Pajares suggests contributes toward greater resistance to change (1992, p. 317) so it was unlikely that her beliefs would alter significantly to suit her changing contexts. When Samantha found that her environment did not match her beliefs she either tried to change the context to meet her needs or she chose to leave it to pursue other places where she could further explore and practice her beliefs.

Samantha’s narrative highlights the role that context plays in the development of beliefs and a teacher’s perception of practice. In an analysis of secondary school reform, Grossman and Stodolsky (1995) found that high school teachers belong to specific subject area “subcultures” which are characterized by differing beliefs, norms, and teaching practices (p.5). Samantha’s
narrative reflects how a teacher navigates a way to practice her own beliefs despite the fact that the beliefs may not align with her teaching context. She is very aware that her teaching beliefs and practices do not reflect the norms of her colleagues; however she has been able to find ways to practice her beliefs within her own classroom and in her role as Science, Technology, Engineering and Mathematics (STEM) Academy Leader. Rather than try to change the norms of the subculture, Samantha is content to simply practice her beliefs on her own. She goes about her work quietly and diligently advocating for students, and at times confronting the barriers that traditional school structures can present in order to support her students and practice her teaching beliefs.

Bethany: Teaching by Looking Outward

For Christmas this year, my mom sent me a little wooden house and inside the wooden house were all sorts of tiny memorabilia. On Christmas morning, I sat with my son and we poked around in the wooden house to look for little treasures. We found a miniature kaleidoscope and memories of my childhood came flooding back. I remembered that I had given it to my dad for a Father’s Day present when I was a child. I bought it for him at an art shop in our home town which is a place full of childhood memory for me. When I saw the kaleidoscope again, I remembered playing with it in the shop, pointing it towards the stained glass windows and I remembered that the colors were dizzying through the lens of the kaleidoscope. So when I found it on Christmas morning, I held it up to my eye and twirled it towards the window and the ice storm outside. In that moment I realized that this kaleidoscope is full of memory and my teaching is made of memory.
The kaleidoscope represents my teaching beliefs because on any given day, the images I see in the kaleidoscope are dependent upon the conditions of the day. The students shuffle around before me, changing daily, moving, growing and becoming themselves. They are constantly changing before my eyes. They are full of color, light, shape, and shine. Like the view through a kaleidoscope, they are distorted at times based on my perceptions of them, or their perceptions of themselves and they are constantly shifting based on my perspectives of the students I teach, the initiatives in education, my colleagues, my learning. Every day is different. And as I sat with my son looking through the kaleidoscope I realized that as long as I see my work through the lens of the kaleidoscope, I know I will always see my work as beautiful, intriguing, confusing, and sometimes painful.

I would have to say that when I was young I was a really good student, but it was because I knew how to be a student. It just came naturally to me and I didn’t have to try very hard. All the things you do to be a good student and get good grades, somewhere along the way I just naturally picked up those skills. But school didn’t interest me much. When I went on to high school I continued to be good student but I can’t say I ever really found a passion for anything in school. I was very social and I was involved in sports, but academics didn’t interest me much. It wasn’t until I went to college when I think I began to love learning. I developed a curiosity about life and about the world around me.

I can say that so many of my teaching beliefs and my current practices were developed during my first teaching job which was at a small private school. The school’s director was brilliant and I still think of him as a critical mentor for me and in the development of my beliefs and practices today. He founded the school based on everything that is part of what we see as
transformation now—personalized learning, interdisciplinary curriculum\(^1\), inquiry, service, and how students push themselves above and beyond what they can get in the classroom and connect it to outside of school. Inquiry was a solid part of the program where kids would choose something that they cared about and then expand and go deeper. I can say that my experience at this school truly formed me and what I believe is good teaching practice and what is best for students. I had found a job that challenged me every day and left me satisfied, knowing my work had a purpose greater than my own self-fulfillment.

The school had a strong service learning component which really resonated with me. It conveyed the value of giving back to society in some way. I wanted to explore service learning and the idea of giving back to society on my own so I took a leave from my position and joined the Peace Corps. I worked with small women’s groups in school in the Dominican Republic and in Haiti. It was an amazing experience and really reminded me of the importance of giving back to society and helped solidify my beliefs about the importance of service learning for students.

I feel like I work really hard now to practice my teaching beliefs. I really want my students to be active in their own learning and have a classroom where the teacher is the facilitator of learning. When I was a new teacher I didn’t really know how to do that, but now that I have more experience and more confidence I think I am getting closer. The more confident I become in my teaching, the more I have in my experience to give, the more I want to pull myself away from center and give more of the teaching and learning back to the kids. But as a young teacher, whether I believed it or not, I don’t think I really understood that

\(^1\) Interdisciplinary curriculum is a form of integrated curriculum and instruction which spans across multiple subject areas, typically found in middle or secondary school settings where subjects are taught by multiple teachers (Jacobs, 1989).
concept, or how to do it because I wasn’t ready. But I never feel like I’m ever done learning and growing as a teacher and that can get messy at times. Recently, I’ve been learning more about proficiency-based learning\(^2\) and I’ve been trying it in my classroom. The more I learn the more I feel like I’ve been a terrible teacher teaching any other way! That’s what new learning does for me. I can see myself actually teaching the way I want to, but I know that I’m not there yet. So for that reason, I feel like my beliefs and my teaching practices are less in line now than they were even a year ago because of my new learning, but I’m so close! And just like I would do with my students I can forgive myself because it’s messy and we don’t grow unless we are willing to get in there and get our hands dirty. I know that it’s a learning process and I’m getting there!

Now as a teacher leader who is being asked to lead others in proficiency-based learning, I realize that teachers are just like our students. Everyone is different and has unique beliefs and needs to be supported one by one. But that leaves us with a dilemma of individual teaching beliefs versus school-wide vision and common teaching practices. How do we as educators take what may be our personal ideologies or personal experiences and what is our responsibility within the context of the whole school? ... What do I need to work on as an individual? What can I live with and what is my accountability towards the school at large? How do I hold true to my own values, but also know that I’m part of something bigger?

Finding strength in vulnerability. Bethany is a highly introspective and intuitive person and she models a degree of strength by exhibiting vulnerability and openness about her beliefs

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\(^2\) Proficiency-based learning refers to systems of instruction, assessment, grading, and academic reporting that are based on students demonstrating that they have learned the knowledge and skills they are expected to learn as they progress through their education. In public schools, proficiency-based systems use state learning standards to determine academic expectations and define “proficiency” in a given course, subject area, or grade level (New England Secondary School Consortium, 2014).
and practices. As her curriculum director, I experience her as consistently positive and energetic. In my own work with her in my role as her curriculum director, I have witnessed Bethany openly reflecting on her beliefs and her practices in meetings with her colleagues with great vulnerability and transparency. She is often heard saying phrases like “it’s really messy, right?!?” Her ability to reflect on her own beliefs and her willingness to challenge her own practices against her beliefs makes Bethany a highly reflective teacher, while her appreciation of the existence of beliefs among her colleagues contributes towards her effectiveness as a teacher leader.

Bethany was very conscious of the experiences that helped to form her teaching beliefs. She knows herself well and sees herself as someone who is always growing and learning. Her teaching beliefs are centered on the individuality of each of her students and she works hard to facilitate their individual growth. She also believes strongly in giving back, viewing teaching as a social mission and advocating for service learning for her students. During the Curriculum Ideology Focus Group after completing Schiro’s Curriculum Ideology Inventory, Bethany was not surprised that her results showed a strong disposition towards Social Reconstruction and the Learner-Centered Ideology. Bethany was also able to reflect on periods in her career when she was able to practice those beliefs and on contexts in which she found it more challenging to do this. She experienced working in a school that endorsed a shared belief set, one that both matched her beliefs, but also served as a critical formative experience for her. She also experienced working in a larger system that does not have a common set of beliefs but has been able to figure out how to practice her beliefs in her own classroom.

Bethany’s story points to the complex organic nature of teaching beliefs and practices and challenges the assumption that teacher beliefs and practices strengthen and become more
singularly focused as they progress throughout their career. Bethany’s teaching practices and beliefs did not always follow a clean path towards convergence over time. Throughout her career she has been consistently engaged in her own professional learning and, as a result, Bethany is constantly learning new things and testing out new ideas in the classroom. This has caused her to experience moments of both congruence and incongruence between her beliefs and practices as she continually interacts with and reflects upon new ideas, professional learning and changes in contexts. Like looking through a kaleidoscope, Bethany’s beliefs and practices are sometimes clear and aligned, while at other times the images are more distorted. Bethany’s willingness to be transparent and vulnerable about her own learning, combined with her contagiously cheerful optimism and confidence that everything will work out, has earned her the respect of her colleagues and students.

As a teacher leader, Bethany models the kind of reflection required of teachers to make shifts in their instructional practice by examining beliefs and practices openly and honestly. While the education field often emphasizes reflective practices among pre-service and new teachers, Bethany’s narrative reinforces the need to encourage ongoing reflection and dialogue among practicing teachers. Over the course of their careers, as teachers interact with new learning and experiences changes in professional contexts, beliefs may be challenged. Bethany’s narrative suggests that teachers need time to consider these changes against their beliefs and practices.

Lisa: Teaching by Reflecting Inward

I brought a pocket mirror to represent my beliefs

because it signifies looking inward. It signifies the

importance of reflection and the need to continuously learn

Figure 6.2. Lisa’s Object: Pocket Mirror
and to confront the challenges that have the potential to slow me down. It reminds me of the importance of stopping periodically to look in the mirror—to think deeply about the experiences, knowledge, relationships, values, and goals that guide my work and what actions I can take that will propel me forward. The pocket mirror is a reminder that I will be forever reflecting, and as a result, forever revising my educational beliefs. When you look in the mirror you don’t always like what you see. But you can’t look away. As I think about my own career, had I not taken the time to reflect and to share my experiences, I would have missed out on the opportunity to once again feel invigorated by the power of human emotion and to regain perspective on why I remain committed to fighting this good fight.

When I was young I really struggled in math and I remember vividly trying to pretend that I didn’t have a learning issue. I was very social and I did a lot of compensating in the classroom. I pretended to be disengaged. I didn’t want people to know that I was being pulled out to go see the special educator to learn basic math skills. And I didn’t want to see myself that way. I liked my Art and English classes, places where I could be hands on, and be challenged creatively, and where I put ideas into different modes or mediums and creations but still had to work really hard for my grades, particularly when writing essays. In high school I ended up building a relationship with an amazing teacher who believed in me. He told me that I could do it and was persistent in not letting me give up. He set high expectations and in his way let me know that he was not going to let me get away with anything less. He wouldn’t let me look away from the mirror, but he reminded me that I had the power to change the image I saw in the mirror.

I am someone who constantly craves critical feedback. As I look back I realize that throughout my life I’ve sought out people who challenge me and support me. I’ve had three or
four really honest mentors in my life that have pushed me. They saw something in me that I might not have seen in myself and pushed me into the next phase. They cared enough about me and saw potential in me and that’s been able to motivate me to keep growing. I feel like I’ve been really lucky to have people that have continually nurtured me and continued to push me professionally. But also I know that I seek out these people. I don’t run away from criticism. I don’t look away from the mirror.

I would say that I know myself pretty well. I know my strengths and I know my weaknesses. Also, I know my teaching beliefs and I know where they come from. I entered into teaching with a strong belief that all kids can learn and care about learning. I think that one of my strengths as a teacher is that I know I had to work really hard in school. Even now I have to work really, really hard to execute a good lesson plan that will create the kinds of opportunities for kids that I think are worth their time. I believe that when students know how hard you work at it and know that you are thoughtful in your work, they respond to you.

I believe in academic rigor and I believe that cultural literacy is important. But also I place a heavy emphasis on individual growth and the need for students to be actively involved in their own learning. Sometimes these two beliefs are in conflict and so when I think about my role as a teacher, I toggle back and forth in the classroom between seeing myself as facilitator and seeing myself as purveyor of knowledge. I’m trying to balance out the idea of academic rigor, and holding all kids to a set of high standards and what it really means to be college and career ready, and to have a high school diploma mean something. At the same time, I believe in our responsibility for meeting kids where they are at and nurturing the needs of all kids.
Now that I’m an instructional coach I’m responsible for leading faculty learning on curriculum, instruction and assessment and I know that we have to work harder at building in time for teacher reflection and professional dialogue. Continuous growth is possible when we dedicate time to understanding our strengths and weaknesses, our goals and aspirations, and when we are fortunate enough to find school leaders, colleagues, and students that inspire us and push us to actualize our potential. I don’t really believe that we’re going to reach consensus on teaching beliefs, but we can work harder at understanding each other. We need to look into the mirror, understand who we are and what we believe and to be open to sharing it with each other.

Navigating conflicting beliefs. Lisa is young, bright, energetic and fiercely passionate about teaching and learning and meeting the needs of each individual student. Well respected by her colleagues and school leaders for her hard work and expertise in literacy, Lisa moved from a classroom teaching position to a teacher leader/instructional coach position. In her new role she supports her colleagues through professional learning, job-embedded coaching and co-planning classroom curriculum. As her curriculum director I witness the hours Lisa puts into preparing for a single faculty meeting presentation. The high standard she holds for herself serves as a model for her colleagues and pairs with her willingness to work long hours to support them, causes her colleagues in turn to want to work hard for her.

Lisa’s narrative provides an example of a teacher who has competing teaching beliefs and how she navigates that inner conflict through constant self-awareness, active reflection and openness with others. Highly introspective by nature, Lisa was conscious about how her own experiences as a learner helped to form her teaching beliefs, by seeing a direct connection between her own experiences and her current teaching beliefs and practices. As Lisa engaged in
looking at her beliefs juxtaposed with Schiro’s Curriculum Ideology framework, she was not surprised that the results revealed both Scholar Academic and Learner-Centered ideologies. Lisa values academic rigor and content knowledge and she equates holding high expectations for students with showing them respect. As an English teacher she wants her students to read classic literature and write high quality essays. However Lisa also values learning cross-cutting skills, or those transferable skills that exist outside of the academic content. She wants her students to learn how to persevere, practice civic responsibility and problem solve. She has leanings toward a learner-centered, constructivist pedagogy and tries to build learning environments that support individualized instruction while still maintaining high standards for all students and honoring her strong belief about the value of content knowledge. For example, Lisa recently designed an individualized, proficiency-based reading course targeted for struggling readers and is exploring how to use portfolios as a tool for student reflection. As her curriculum director, I often find Lisa engaged in thoughtful discussion with her colleagues about instructional practices. Lisa is an example of a teacher who is able to navigate her inner conflict between two competing pedagogical beliefs because she is such a reflective practitioner and because she is absolutely committed to discover new ways to effectively serve her students.

Summary

This study explores how teachers articulate their teaching beliefs and the implications for practice. Chapters Four and Five reflected themes across ten participants which are free of context. These three narratives represent a deeper exploration of three participants and allow for the intimate study of individuals' experiences over time and in context. Narrative inquiry places a value on context, character and plot to create meaning through a participant’s narrative (Kramp, 2004). Using the structure of a basic storyline, the three narratives illustrate how three teachers
articulate their teaching beliefs, how beliefs are formed and the relationship between teaching beliefs and the teacher’s perceptions of her teaching practice.

Theorists generally agree that beliefs are created through a process of learning influenced by culture and social contexts. Through observation and social interactions individuals experience others’ ideas and beliefs, compare them to their own and either reject or assimilate new beliefs over time. This process allows individuals to adjust to their changing surroundings throughout their lives. Teachers follow this process as they develop their teaching beliefs (Pajares, 1992). Piaget’s cognitive theories of adaptations include the concepts of assimilation and accommodation. According to Piaget assimilation occurs when new information is incorporated into existing beliefs and accommodation occurs when new information cannot be assimilated and existing beliefs must be revised or replaced. In both cases, beliefs are changed due to new information or new learning, but when beliefs are deeply rooted, they are less likely to change, or accommodate.

Through their narratives the three participants in this study showed evidence of a great deal of self-knowledge and the development of deeply-rooted beliefs at an early age. As they recalled memories from childhood and throughout adulthood, participants were able to identify specific formative experiences that contributed to the development of their beliefs beginning in childhood. They describe positive memories where the events aligned with their beliefs, as well as moments of tension when events contradicted their beliefs, causing their beliefs to be challenged. This type of reflection has been argued to be a critical component in teacher education programs. Throughout their careers, the three participants in this study were able to navigate the relationship between their beliefs and their teaching practices because they are highly reflective and are willing to look critically at themselves. They are invested in their own
learning and constantly seeking feedback from others. Their open vulnerability allows them to explore new ideas and accept that they may not always have the right answers, but they are willing to keep trying to get it right because they are committed to their craft and their passion for meeting the needs of their students.

The narratives further illustrate the role that context plays in teaching beliefs. Essentially these narratives suggest that teachers have a better chance of implementing and practicing their teaching beliefs effectively if they can find or create a professional environment in which they can apply their teaching beliefs. When faced with an environment that does not support the teacher’s beliefs, she is faced with choices--she can opt to not practice her beliefs and even try to changing her beliefs to better match her environment, or she can practice her beliefs by going against the grain, perhaps even taking on a leadership role by trying to reform the environment around her through school improvement initiatives. For example, Samantha found ways of practicing her beliefs by taking on a new role in her school as Massena High School’s STEM (Science, Technology, Engineering, and Math) Academy Leader. Rather than building a competitive and exclusionary application process Samantha advocated for open admission to any student who was interested in exploring STEM. She designed online experiences for students who were unable to attend all of the sessions. She built a portfolio process for each student to reflect on goals and design individual learning experiences. Wanting to expand student learning outside of the school she brought in guest speakers from a variety of professions and designed student internships for students to go out into professional fields. In order to incorporate creativity into the program Samantha collaborated with the visual and performing arts teachers to expand the program to STEAM (Science, Technology, Engineering, Arts and Math). Similarly, Bethany sought permission from her principal to work with another teacher and develop a
proficiency-based Spanish course which allowed students to work independently towards mastery at their own pace. Finally, Lisa developed a portfolio-based reading course that supported students of all abilities and interest to access high interest and challenging literature and as literacy coach Lisa supports her colleagues in increasing the use of fiction and nonfiction literature in content area courses.

This study examines how teachers articulate their beliefs about teaching and learning and potential implications for practice. Thematic inquiry uncovers themes related to the beliefs and formation of beliefs across ten participants. Narrative inquiry explores in much greater detail and in context, three participants and their perceptions about their practice, and illustrates the internal and external tensions that these teachers experienced as they developed their teaching beliefs and worked to practice those beliefs. The three teachers show how their beliefs began in childhood and identified key events and people throughout their lives that contributed to the formation of their beliefs. Like any story, their plots included turning points. They each use metaphors as a way to make sense of and articulate their beliefs and the way their beliefs were formed. They show how they found ways to practice their beliefs and the importance of context in the field of teacher beliefs. Finally, as teacher leaders, each narrative demonstrates the tension between the individual teacher beliefs versus the beliefs of the collective and provides opportunity to explore implications for leadership.
Chapter Seven: Discussion

Introduction

I have worked in public schools in New Hampshire and Vermont for nearly thirty years. The teacher preparation program I attended in the early 90s, espoused constructivism pedagogy and experiential learning (Dewey, 1938). During this time I was exposed to instructional terms often used by constructivists such as experiential learning⁴, authentic learning⁴, and integrated learning⁴. These terms conveyed a clear message about what my colleagues believed to be valued teacher beliefs and practices. Conversely, when my colleagues discussed other approaches such as the didactic teaching practices of one of their less progressive colleagues, the word traditional was used, often with lowered voices as if to indicate that this method was not considered quality teaching. In other words, early on in my career I learned that there were right and wrong instructional pedagogies and teaching beliefs.

Following my internship, my first teaching assignment was in a school that did not convey strong messages about constructivist pedagogy. As I moved on to other teaching jobs, my teaching beliefs developed further. My beliefs were influenced by each new setting, each new professional development event I attended, and every interaction with colleagues, students and families. As I reflect back now, I can recall times when I felt that my beliefs matched my practices or were in alignment with school initiatives, for example when I designed a unit of

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³ Experiential Learning, or experiential education, is a pedagogical approach with a focus on the individual student and the learning environment requires students to be actively engaged in learning and reflection about their own learning (Dewey, 1938; Kolb, 1984).
⁴ Authentic learning is defined as an instructional strategy focused on connecting classroom learning to real-world connections (“Glossary of educational reform for journalists, parents and community members,” n.d.)
⁵ Integrated Learning or interdisciplinary curriculum is a form of integrated curriculum and instruction which spans across multiple subject areas, typically found in middle or secondary school settings where subjects are taught by multiple teachers (Jacobs, 1989).
study that integrated art and literacy into social studies or established student-led parent conferences. However, as I reflect back on my career I can also recall times when I found myself teaching against my beliefs. These moments were almost always related to context where perhaps my beliefs did not match my teaching partner’s beliefs, or the school initiated a new curricular program that did not align with my own beliefs. In these cases, I was faced with a decision to either resist the change and adhere to my own beliefs, or compromise my beliefs by adhering to the change. Ultimately, over the years, my teaching beliefs strengthened in large part because I never stopped reflecting, questioning, and testing my beliefs through classroom practice.

External factors changed my professional context and further influenced my teaching beliefs. In 2002 *No Child Left Behind* was signed into law representing a further push for outcome-based/standards-based education and a significant shift in the role the federal government would play in education in the United States. Large-scale school reform was fully underway not only in the U.S. but also in most other industrialized nations (Fullan, 2001, 2009; Hargreaves, 2002). Public scrutiny of schools was heightened as schools were viewed as both the cause and the solution for the social and economic woes of our nation (Berliner, 2006). High-stakes testing (state standardized tests with consequences attached to them) became the norm. Measureable curriculum standards and grade-level learning outcomes made up the foundation for a system of school accountability that involved publicly ranking schools based on student performance on state standardized tests. Many critics suggest that this shift to an emphasis on high stakes testing led to a narrowing of the curriculum, teaching to the test and a devaluing of individualized and authentic learning (Apple, 2006; Berliner, 2009; Nichols & Berliner, 2008), which were some of the underlying tenets of constructivist and social reconstruction pedagogies.
It was at this point I moved from classroom teacher to my first curriculum director position. The transition from teaching to administration paired with the change in political climate in education had a profound impact on the way I viewed teaching and learning. I had been trained as a teacher in an environment that endorsed constructivist pedagogy with a focus on honoring the individuality of each student. As a teacher my goal was to create a student-centered classroom with an emphasis on individualized instruction and assessment. Now, as a curriculum director, the scope of my responsibility shifted from teaching students in the classroom to the systemic overseeing of learning across dozens of classrooms. My new role was charged with collecting assessment data from each classroom and each school, and developing reports indicating percentages of students who were not meeting state standards at each grade level which did not align with my own constructivist teaching beliefs about individualized instruction and assessment.

Finally, I am aware that my own teaching beliefs were further challenged when my own two children began attending public school, further complicating my perspectives about teaching and learning. One example would be the conflicting perspectives I had about report cards in my different roles in education. As a teacher I valued individualized learning and believed the best way to communicate student growth to parents was to write long narratives about each child. However as a curriculum director, I led teams of teachers in writing standards-based report cards that identified specific learning outcomes at each grade level with boxes for teachers to check off if the student was below, meeting or exceeding the standard. Finally as a parent, I found myself craving a traditional report card where I could see my own children’s letter grades (A, B, etc.). These beliefs represent conflicting pedagogical paradigms.
As I engaged in my own internal conflicts about teaching beliefs and practices, I found myself paying closer attention to the discourse around me—how teachers talked about students, how one teacher defined the use of the word standard and how another teacher interpreted the term. For example within one curriculum committee one teacher believed that we were developing curriculum with standards that were non-negotiable and if a student did not meet the standard they did not move on to the next grade, while another teacher viewed the standard as a guide post and that each child should be evaluated upon their growth towards the standard. This discourse caused me to wonder what teachers believed about teaching and learning, how each teacher developed those beliefs and how these differences would impact the teachers’ decisions in the classroom.

I began to seek ways of understanding more about the role teacher beliefs played in teacher practice. I left my administrator position to study teacher beliefs, to seek to understand how teacher beliefs are formed and to investigate teachers’ perception of their practices related to their beliefs. This study was designed to answer the following overarching research question:

*How do teachers articulate their beliefs about teaching and learning and what are the implications for practice?* Three sub-questions provided the framework for data collection and analysis:

- *How do teachers account for their teaching beliefs?*
- *How do teachers describe how their beliefs are formed?*
- *How do teachers relate their teaching beliefs to their perceptions of practice?*

Throughout this study, participants shared their personal teaching beliefs, reflected on the events and people that contributed to the formation of their beliefs and discussed their perceptions of practice. Thematic analysis generated this series of emergent themes related to
teaching beliefs, those factors that influenced teacher beliefs and the relationship between beliefs and practice. Themes related to teaching beliefs (see Chapter Four) included (1) connecting; (2) giving back; (3) learning outside of academic content; and (4) setting high expectations. Additional themes (see Chapter Five) surfaced related to how teachers form their beliefs including (1) establishing beliefs through childhood schooling experiences; (2) expanding upon beliefs through personal relationships; (3) challenging beliefs in teacher education programs; (4) supporting beliefs through mentoring and (5) refining beliefs within professional contexts. Narrative inquiry allowed me to dig more deeply into individual and contextualized experiences of participants and develop three detailed personal narratives. The narratives revealed tensions that these teachers experienced as they develop their teaching beliefs and work to practice their beliefs.

I will now discuss areas where this study contributes to knowledge about teacher beliefs, and how the methods I used in the study may contribute to methodology. I will address implications for teacher education, teacher practice and educational leadership. Finally I will speak to potential limitations of the study and I identify areas for future research.

**Contributions to Knowledge**

This study on teacher beliefs contributes to multiple discourse communities including teacher formation, identity, knowledge and practice. There is an abundance of research on curriculum and different pedagogical approaches to teaching and learning (Bobbitt, 1918; Dewey, 1938; Tyler, 1949). Some researchers include teacher beliefs in a broader definition of teacher knowledge. For example, Nespor’s definition, upon which his *Teacher Belief Study* (1987) is framed, is drawn from cognitive psychology and includes both knowledge acquisition and value-based beliefs which develop through emotional experiences. Others argue for the
separation of beliefs from teacher knowledge suggesting that while teacher knowledge is based on evidence, teacher beliefs are less objective and more value-laden (Pajares, 1992).

Considerable research has examined teacher practical knowledge (Elbaz & Elbaz, 1983), teachers' ways of knowing and their origins (Carter, 1990; Schön, 1983), professional knowledge (Schön, 1983) and pedagogical knowledge (Shulman, 1987). There is a general assumption that teacher knowledge influences practice and through reflective practices, teaching practices can have an influence on the further development of teacher knowledge. Schön (1983, 1987) acknowledges the relationship through his work on reflective teaching or “knowledge-in-action” (1987, p. 25) and Cochran-Smith and Lytle (1999) explore the relationship through teacher knowledge-in-practice. Similar to teacher knowledge, there is general agreement that beliefs influence actions. However, there is also acknowledgment that classroom experiences and teacher reflection can influence beliefs pointing to a complex relationship between teacher beliefs and practices. Schubert (1991) describes this as "a union of theory and practice in reflective action" (p. 214). Despite consensus that beliefs influence actions; research on teacher beliefs and the relationship between teacher beliefs and practice has only recently surfaced in educational research in the last twenty years (Eisenhart et al., 1988; Nespor, 1984, 1987; Pajares, 1992; V. Richardson, 2003; Sanger & Osguthorpe, 2011; Zembylas, 2006).

What is clear is that there is no single set or universal set of pedagogical teaching beliefs among all teachers. Individual teachers have different beliefs upon which they design pedagogically different practices than their colleagues. In my study I adopted an open-ended view of the term teacher beliefs which allowed me to explore beliefs based on principles and values as well as those that represent more practical knowledge related to instructional practices.
Findings in my study provide strong evidence that core teaching beliefs begin to develop in childhood, well before entry into a teacher preparation program. Participants were able to identify moments when they were observers of teaching practice while they were students in a phenomenon which Lortie describes as an “apprenticeship of observation” (1975, p. 61). Lortie goes on to say:

Teaching is unusual in that those who decide to enter it have had exceptional opportunity to observe members of the occupation at work; unlike most occupations today, the activities of teachers are not shielded from youngsters. Teachers-to-be underestimate the difficulties involved, but this supports the contention that those planning to teach form definite ideas about the nature of the role. (p. 65)

Participants in this study traced the development of the teaching beliefs back to childhood and early learning experiences. They recalled both positive and negative experiences and were able to connect those memories to the choices they made as teachers themselves. However, I found that the early beliefs, while deeply rooted, were characterized by general beliefs which were based on core values and principles. Those core values included the teacher developing strong relationships with students, the idea of learning outside of academic content knowledge, community service or giving back to the community and setting high expectations for their students. The participants were also able to articulate how their beliefs were formed including through their own childhood experiences, personal relationships, teacher education programs, mentoring and professional contexts. However the participants in this study showed limited evidence that they could attach the teaching beliefs, or the formation of these beliefs, to specific curriculum theories or instructional pedagogies, but expressed their teaching beliefs as a set of intuitive and innate value systems. They showed little knowledge or understanding of the
underlying research behind the pedagogical beliefs and practices and were unable to make the connection between their own experiences as learners in classrooms that employed these theory-driven practices and the development of their own pedagogical beliefs. This study contributes to the field of teacher beliefs by further strengthening the theory that teaching beliefs begin to form during childhood through direct learning experiences but suggests that teacher education has a role to play in causing for maturation of the beliefs to something more sophisticated than core values and principles. Given the opportunity to reflect deeply on their beliefs and practices, participants were able to connect their core values with specific pedagogical orientations suggesting further research in the area of formation of beliefs through teacher preparation programs and continuing education throughout the teaching career, an area that I explore further in the Implications section of this Chapter.

In addition, this study reinforces the critical role context plays in both the development of teaching beliefs and the teachers’ ability to practice their beliefs. It is not surprising a teacher’s professional context would impact the teacher’s beliefs. Context represents the surrounding environments within which teachers experience messages about teaching and learning. Context provides the environment in which teachers are able to practice their beliefs or not. Participants in this study were able to recall memories when their practices did and did not match their teaching beliefs and in each case context was the driving factor. When a context did not mirror the beliefs, the participants shared how they changed jobs and found a context which did allowed them to practice their beliefs, or how they when they remained in a position they found ways to modify their situation to create a context in which they could practice their beliefs.

Finally, the study provides strong evidence that these teachers’ abilities to practice their beliefs were highly dependent on the teachers’ reflections and self-awareness of their beliefs.
Throughout the scope of the study I observed a high degree of thoughtful and honest reflection among participants about their beliefs, and yet during the study they often commented how rarely they were invited to reflect on their beliefs and practices over the course of their careers. Several suggested this was a practice they wished were built into professional development or faculty meetings. While reflective practices are challenging to institutionalize in the busy lives of teachers, this study provides strong evidence for a need for ongoing reflective practice throughout a teacher’s career and reinforces the critical need for ongoing reflection and dialogue among colleagues within schools.

**Contributions to Methodology**

This study provides contributions to methodology related to the study of teaching beliefs. In this study I used various data types and multiple methods in order to solicit deep reflection about teacher beliefs, how beliefs are formed and the teachers’ perceptions of practice. These included visual methods; interviews and focus groups; self-reflections tools, including reflective writing and a curriculum ideology inventory. I suggest that the use of visual methods and self-reflection tools within a focus group setting served as effective methods for researching beliefs. I also suggest that the use of metaphor analysis and memory methodology, both used during the data collection and analysis part of my study, serve as contributions to methodology in qualitative studies related to beliefs.

**Visual methods.** In a prior study (Cole, 2011) I had experimented with Object-Memory and found it to be a very effective method in soliciting reflection on beliefs and recalling memories related to formation of beliefs. In this study, following each individual interview I asked each participant to choose an object that represented their teaching beliefs and write a short essay explaining their choice. They brought the object to a focus group where they were
asked to explain to the group their choice and answer questions. The participants in this study brought a wide range of objects, including photographs, a kaleidoscope, an egg, a lawn ornament, Rubik’s Cube, dream catcher and children’s books. Some objects were items from their past, such as the kaleidoscope or the children’s books and the participant described their memories with the object. Others were chosen because they provided a representation, or served as a metaphor for their beliefs, but also caused participants to draw upon memories from their past. By including objects as triggers, I was able to support deep reflection among participants as they explored their teaching beliefs and teaching practices through memories associated with the objects.

**Focus groups.** Data collection began with individual interviews of each participant with the goal being to collect initial background information and to encourage initial responses to questions about teaching beliefs. The interviews were followed by two focus groups. Focus groups proved to be an effective method in this study that provided for rich data through social interactions. Kamberelis and Dimitriadis (2013) found focus groups were often effective in exploring particularly sensitive subjects. The teachers’ already existing relationship provided a trusting environment where they would share their beliefs openly with one another. I observed great trust and transparency among the participants as they discussed very personal beliefs and the experiences upon which they attributed the formation of their beliefs. My study, with a focus on participant reflection on beliefs, provides evidence of the effective use of focus groups as a format for soliciting beliefs within the social construct of focus group settings.

**Self-reflection devices.** Seeking a second tool to act as a trigger for reflection about teacher beliefs, I used two self-reflection devices. First, I asked the participants to do some writing following the individual interview and prior to the Object Memory Focus Group.
Participants wrote about their selected object, why they chose the object and how it represented their beliefs. During the second focus group I used another a self-reflection device—specifically Schiro’s *Curriculum Ideology Inventory*—with the goal of further soliciting teaching beliefs but this time against an organizational framework designed around the context of a curriculum theory framework. Based on the work of Michael Schiro (2008, 2013) participants were asked to respond to a series of statements which produced results that represented specific leanings towards Schiro’s four curriculum *ideologies*. After each participant completed their survey I showed them how to score their results and I asked them to take a few minutes to reflect upon the results. I then used a focus group format to ask participants to share their results and reflect further on their beliefs and practices. I found the tool was effective in broadening the conversation beyond core teacher beliefs and allowed the participants to let their beliefs reside within specific curriculum theories. It also caused them to consider the external influences that may have helped to form their beliefs.

**Metaphor analysis.** There has been recent interest among researchers and teacher educators in metaphor research as a way of understanding how teachers conceptualize teaching and learning. (Mahlios, Massengill-Shaw, & Barry, 2010; Saban, Kocbeker, & Saban, 2007). Miles and Huberman (1994) discuss the prevalence of metaphors in qualitative research stating:

> The people we study use metaphors constantly as a way of making sense of their experience. We do the same thing as we examine our data. The issue, perhaps, is not *whether* to use a metaphor as an analysis tactic, but to be *aware* of how we and the people we study use it. (p. 250)
In this study metaphors played a role in both the data collection and analysis. First, some participants naturally produced metaphorical images during their individual interviews. For example, Phoebe described learning as a “two-way street” and Mark described his attempts at practicing his beliefs as sometimes “swimming upstream.” Then by asking participants to identify objects to represent their beliefs, participants were steered towards the use of metaphors which also presented themselves in the Object-Memory focus group. For example Patrick used the energy needed to inflate a lawn ornament to the energy of the classroom and Gail used an interlocking web in a Native American dream catcher to represent relationships and classroom community. Finally, I used metaphors in the data analysis process to organize the three personal narratives: Samantha’s journey, Lisa’s pocket mirror and Bethany’s kaleidoscope. I posit that metaphor analysis is an effective method, during data collection and/or data analysis, for qualitative studies on beliefs.

**Memory methodology.** It was inevitable that memory would play a role in this study because the topic required participants to reflect the formation of their beliefs over time which ultimately would lead them to their own past. While memory has been a formal method for collecting qualitative data in oral history for decades, memory methodology, or memories studies, is a relatively new area of focus in qualitative research (Keightley, 2010; Radstone, 2000). Teacher narrative is interrelated with memory studies, especially memory as transformation—memories as a means of self-reflection and self-construction (Grumet, 1990; Haug, 1987; Radstone, 2000) This study incorporated the use of memory and memory methods exploring the role that embodiment and embodied memories play in the development of teacher beliefs. I observed teachers in a process of recalling specific memories and stringing memories together to construct meaning from these events in an attempt to understand and express how
their beliefs were formed. The study showed that memory played a role in exploring not just teacher beliefs but how participants make meaning of memories, how these meanings are constructed, lived, and ultimately embodied throughout the teacher formation process.

To summarize, these methods—visual methods, focus groups, self-reflection devices, metaphor analysis and memory methodology—when used together resulted in a deeper and more cohesive understanding of teacher beliefs and their formations.

Implications

I will now discuss potential implications of this study including implications for teacher education, teacher practice and educational leadership.

Implications for Teacher Education. This findings in my study reinforce the critical role teacher preparation programs should play in helping pre-service teachers identify their teaching beliefs, reflect upon how their beliefs were formed and consider the potential relationship between their beliefs and their teaching practices. Many teacher preparation programs address the need for this type of reflection through the development of teaching philosophy statements and teaching portfolios as a way for early teachers to reflect on their own learning as they enter the teaching profession. Teacher educators know that there is a relationship between a pre-service teacher’s willingness to learn teaching methods and the teacher’s underlying teaching beliefs (Anderson & Holt-Reynolds, 1995). Teacher education programs often include courses in educational psychology which may provide opportunity to address teaching beliefs (Joram & Gabriele, 1997). Beliefs, and reflecting on beliefs, play a critical role in the formation of teacher identity. Alsup (2006) describes this “borderland discourse” as the reflective conversations that take place in a context that is slightly uncomfortable, or the borderlands (p. 5). Some have explored the use of visual text, including drawings, photographs
and video, or exploration of emerging teacher identity (Aitken, 2014; Stockall & Davis, 2011; Strong-Wilson et al., 2013; Weber & Mitchell, 1996). Digital storytelling has been increasingly incorporated into teacher education allowing pre-service teachers to reflect on videos of themselves teaching and then reflecting on what they see. By connecting visual images with teacher reflection and discourse, early teachers are provided the opportunity to reflect upon “representations of teaching selves” (Aitken, 2014, p. 187) and begin to see themselves within the broader context of the educational profession. With the increased emphasis on technical aspects of teaching and standardizing teacher preparation programs, it is critically that important pre-service teachers continue to be provided a variety of opportunities to explore their beliefs openly and without concern for an evaluation.

The participants in this study reported a general lack of understanding of their beliefs in conjunction with curriculum and learning theories, often drawing upon older memories from teacher preparation programs. The curriculum of a teacher education program should provide new teachers with a deep understanding of different curriculum theories, related pedagogical practices and the educational reform movements in which each resides. This suggests the critical need for teacher preparation programs to maintain a curriculum that provides pre-service teachers with a strong background in curriculum and learning theory. Many teacher education programs endorse specific pedagogical stances. For example, Boston College’s Lynch School of Education underscores the importance of social justice education, rooted in social reconstructivist pedagogy, while the University of New Hampshire’s Education Department emphasizes experiential education which is grounded in constructivist pedagogy. Given the range of teaching beliefs that new teachers will experience among their colleagues and in the different schools they may teach in throughout their career, it is important teacher preparation
programs provide new teachers with the landscape of different pedagogical perspectives and learning theories so that the teacher can better understand and appreciate how different pedagogical orientations relate to their own beliefs.

**Implications for Teacher Practice and School Leadership.** This study points to the critical role that teaching beliefs play in teacher practice. Teacher practice, or the decisions that teachers make every day in the classroom, is built upon the teacher’s belief set. The study serves as further evidence that teacher practice is not easily changed without first addressing teacher beliefs and that this relationship exists not just in the teacher’s early years but throughout the career. Huberman (1989, 1992, 1993) examines the lives of teachers identifying specific stages, or “life cycles” in the career of a teacher, including early career which represents survival and discovery, mid-career which includes stabilization, experimentation/activism, taking stock: self-doubts, serenity, conservatism and disengagement (1992, pp. 123-126). The findings in my study provide critical evidence teachers continue to develop and form their beliefs over the course of their careers. While there has been considerable research on the formation of teacher identity and teacher beliefs among pre-service teachers, there is a need to continue to examine teacher beliefs over the course of the teacher’s career and the relationship between beliefs and practices. Individual teacher reflection and collective discourse about teaching beliefs and practice should not stop at the culmination of the teacher preparation program but continue throughout the professional career of teaching.

Participants in this study discussed their teaching beliefs in relationship to their practice and were able to identify when they were able to actualize their beliefs and times when they could not. When asked about how well their practice matched their beliefs, participants shared anecdotes, or memories of teaching. Many of these stories took place early in their teaching
careers, causing participants to reflect on how they grew as teachers over time. Many participants
spoke about their early years in the teaching profession, describing themselves as novice teachers
beginning their career with teacher-centered, didactic instructional techniques. This finding
reinforces the need to provide ongoing support to both novice teachers and experienced teachers
in reflecting upon their teaching beliefs and understanding the instructional choices they make in
conjunction with those beliefs. This can be done by providing full faculty with time and
protocols to engage in individual reflection and professional discourse about beliefs and practices
throughout the school year in faculty meetings, trainings or team meeting time. Schools may also
offer courses that embed individual reflection and dialogue about pedagogical beliefs.

My study provides further evidence that teacher practice is intrinsically linked to teacher
beliefs and beliefs are not easily changed. I suggest the lack of consensus and near absence of
discourse about the relationship between teacher beliefs/curriculum stances and practice limits
educational leaders’ ability to truly affect teaching practice. Addressing the relationship between
teacher beliefs and educational leadership, Schiro (2013) argued that educators and policy-
makers are in a constant state of conflict related to a lack of understanding of teaching beliefs, or
what he describes as curriculum *ideologies*:

The existence of these competing visions of what good education consists of and the
corresponding lack of understanding regarding these visions among educators,
curriculum workers, and the general public causes confusion and discomfort among
Americans and within American education. As individuals, we are constantly disagreeing
with each other--and with ourselves--about what we should be doing in our schools. (p. 2)
Schiro goes on to suggest teaching beliefs, as he outlined in his four ideologies, and the absence of discourse at all levels about teaching beliefs is limiting the effectiveness of school leaders and policy makers in affecting change in teaching practices.

The confusion in American education that results from a lack of perspective on the four curriculum ideologies, ignorance about the nature of these four visions for education, and the continuing disagreement among educators and the general public over what the nature of the school curriculum should be disrupts the effectiveness of educators as individuals and our schools as (an) organization(s) of supposedly cohesive groups of people. (p. 3)

As educational leaders respond to new reform movements it is critical that they pay close attention to the pedagogical underpinnings of each movement and consider how these ideologies relate to their teachers’ beliefs. For example, in Vermont we have recently been faced with the challenge of responding to the changes in the federal Elementary and Secondary Education Act (ESEA) by developing a state plan to revise our school accountability system. Transitioning from No Child Left Behind (NCLB) and the focus on annual state testing and demonstration of performance to a growth based school accountability system represents a shift from a Social Efficiency model to a constructivist or Learner-Centered Model. Aware of this discourse, the participants in this study found themselves in a transition between the two models and considered how this would impact teacher practice.

During the second focus group the participants began to think about the role that beliefs play in school improvement and how their colleagues might respond to facilitated conversations about teaching beliefs. However they also began to appreciate the value of diversity of beliefs
within a single system. When asked about what this might mean for their work in their school, Lisa responded:

It means that there is a lot of conflict. And it makes you able to navigate that conflict or at least – not so much conflict – that’s not the right word. I think it allows for you to sit at the table knowing that there are barriers and difficult conversations. And it makes it easier for me to roll up my sleeves and engage in difficult conversations knowing that Samantha is probably a different learner than me; she’s probably a different teacher than me, and yet I respect her equally. And so it makes me think the more people are thinking about the competing ideologies, or the fact that they are influenced by our politics, by our own education, by our own growing up our own social lives, that it makes navigating the real challenges in schools a little bit easier. (Lisa, Curriculum Ideology Focus Group, 1/15/14)

It is imperative instructional leaders acknowledge the existence of teaching beliefs and appreciate the deep connection between teacher beliefs and teaching practices. Leaders should develop their knowledge of basic curriculum theory and provide teachers with the opportunity for individual reflection and collective discourse. It is simply not enough to host a one-time event for faculty to draft a school mission statement. Beliefs and practices must be examined at all levels, from the district-curriculum and assessment plan, to school-based structures to the individual classroom. School leaders are responsible for setting the norms and establishing cultural traditions in their school buildings. Professional dialogue about beliefs and practices should be an institutional and cultural practice within a school.
Limitations

Potential limitations of this study could include the study site/participant selection and my own proximity to the research site and participants. I will now discuss these potential limitations and share steps that I took in designing the study to acknowledge and mediate these limitations.

Site and Participant Selection. First, I recognize that the use of a single site and my participant selection process could be viewed as a limitation. As discussed in Chapter Three (Methodology) all ten participants in this study were high school teachers employed at a single school in Vermont. In order to ensure richness of data, I invited only teachers who had at least five years of experience teaching because the focus of the study required a length of time over which a teacher’s beliefs can form and evolve and during which a teacher can have adequate experience practicing their beliefs. In the end all of the participants had over ten years of classroom teaching experience in Vermont schools.

My study was not focused on Vermont or high schools as a specific context, nor does it aim to examine beliefs specific to high school teachers. Participant selection in this study was primarily based on ease of access and my prior working relationship with the participants. In short the ten participants were invited because of their availability and their willingness to engage in this type of inquiry, because of the role they played as teacher leaders, the natural curiosity that they had for the topic and the trusted relationship that I had formed with them over the years.

The lack of diversity of participants could also be viewed as a limitation to this study. While the participants were drawn from multiple grade levels within the secondary school range (grades 9-12) and across all content areas, they all were career high school teachers, not middle
or elementary school teachers. It was not my intention to choose more female than male participants, however those who accepted the invitation to participate (two men and eight women) do represent the approximate gender within the study site. Like gender, race and ethnic background were not part of the selection process, however it is important to acknowledge that all participants in this study were white/Caucasian and this could serve as an argument for lack of diversity in the participants. However, given the homogeneity of the Vermont population and the teaching profession in Vermont, this lack of diversity was largely circumstantial. Finally, while the participants were born, raised and educated in many parts of the United States, I learned through interviews that all participants had attended teacher preparation programs in Vermont and had taught most of their career in schools in Vermont. If I were to expand this study in the future, I would consider continuing my research with a focus on secondary teachers and invite teachers from multiple high schools throughout the country, or I would consider expanding the participant pool to include teachers of all grade levels from elementary through secondary and with more diverse background.

The goal of this study was to explore teacher beliefs and perception of practice. While site/context and diversity of participants are both relevant to a study of teaching beliefs, I would argue that these areas do not diminish the strength of the study’s findings because the design of the study was not designed to establish generalizability (Lincoln & Guba, 1985; Patton, 2002) but rather to provide particularizability (Donmoyer, 2008). Generalizability is a term often used in positivist research paradigms and describes the process by which the findings of one study can be applied to other contexts. Rather qualitative research seeks to develop particularizability rather than generalizability because unlike positivist research, in qualitative research “the goal is not to generalize to predict and control but rather to describe what people do and say within local
contexts” (Freeman et al., 2007, p. 29). Focusing on the analysis and interpretation of specific situations through thick descriptions, honors complexity of the context and participant perspective and shows how the participants make sense of their world and allows the reader to draw their own meaning and determine how it resonates with other situations (Butler-Kisber, 2010).

**Researcher Relationship.** A second potential limitation to this study was my proximity to the research site and prior relationship with the participants. As I discussed in Chapter Three (Methodology Chapter) I acknowledge the potential limitations in my proximity to the site. My role as district curriculum director for this high school could cause concerns for bias, lack of subjectivity or concern for the role of a power relationship. Glesne and Peshkin (1992) would describe this type of study as “backyard” research, or research conducted in a context where I have a great deal of knowledge (Creswell, 2009, p. 177). For this reason I believe my proximity to the site and participants contributed to the richness of the data. Participants were able to open up and share personal stories within our already established trusting relationship. I was aware of the concern and took steps to address potential limitations by memoing thoughts and questions I had throughout the study about possible biases that might be influencing what I was seeing as the study progressed. In addition, I believe my use of multiple methods, inclusion of types of data and my use of both thematic analysis to get at similarities across participant experiences and narrative analysis that probed individual experiences in depth and context strengthened my findings. While I acknowledge the potential limitations with site and participant selection as well as my proximity to the site, I would argue that the trusting relationship that quickly developed with the participants served to counterbalance this proximity, and the careful design of the study,
including the use of varied data types and analysis, have provided depth and persuasiveness to my findings.

**Suggestions for Future Research**

I suggest two areas for future research on teaching beliefs and two areas for potential methodological exploration. First, based on the finding that teacher beliefs are generated through a series of experiences beginning in childhood and extending through teacher education, it is worth exploring further the relationship between the curriculum theories that undergird these experiences and the development of the beliefs themselves. For example, if studies were designed to trace back the specific pedagogical influences present in the formation of the beliefs and to connect those influences to current teacher beliefs and practices, it would provide some understanding of the historical context of shifting ideologically-driven educational reform movements and the pendulum shifts in the educational landscape over time. The length of time for such a study would be challenging. However, ideally I would be interested in following a small set of pre-service teachers through their teacher preparation program and through at least ten years of teaching, tracing the evolution of their beliefs over time.

Second, I would be interested in exploring further the relationship between teacher beliefs and educational leadership and school change. In their text *Schooling By Design*, Wiggins and McTighe (2007) provide guidance to school leaders, suggesting the development of mission-driven curriculum which involves engaging full faculty in the development of a school mission and vision statement prior to identifying school-wide learning goals. However this suggests teacher beliefs, and hence teacher practice, will follow the consensus of the full faculty. Rather than looking at reaching consensus on a single set of beliefs, I believe there is an opportunity to engage a full faculty in a deeper exploration of and appreciation for individual teacher beliefs,
how they were formed and the relationship between the teacher beliefs and practices. I suggest that there is a need for further research on the relationship between the formation of beliefs and changing teaching practices. School leaders and those who advocate for school change gravitate towards quick fixes in school reform. Changing teacher practices requires changing teaching beliefs. Those interested in researching school change would benefit from tying research on school change to the field of teacher beliefs.

Conclusion

This study was very personal for me for several reasons. First, as I stated in my introduction, the questions about teacher beliefs, pedagogy and the implications of these on curriculum and practice are at the center of my work professionally. However, the study also involved teachers with whom I have worked with and continue to work. I was overwhelmed by their willingness to give up their time and to open up to me and their colleagues about topics as personal as beliefs and childhood experiences.

I conclude this paper with my own metaphors, a journey and a garden through a theme presented in de Saint-Exupéry’s *Little Prince*. The main character in the Little Prince travelled from planet to planet in a search for understanding. Along his journey, he met a variety of characters with individual backgrounds, beliefs and motivations and with an open heart he tried to make meaning of his interactions against his own. Classroom practices are influenced by teacher beliefs. All stakeholders in education, at all levels, would benefit from a better understanding of the relationship between teacher beliefs and classroom practice because the student learning experience is predicated on the choices teachers make every day in their teaching practice and teaching practice is tied to teacher beliefs. Curriculum theory, paired with public discourse about and transparency for the purpose of schools should lead the process,
followed by intentionality around supporting an individual and collective unpacking of beliefs juxtaposed with curriculum ideology and reflecting on the implications of this for practice.
References


Fenstermacher, G. D. (1979). A philosophical consideration of recent research on teacher
effectiveness. In L. S. Shulman (Ed.), *Review of research in education* (Vol. 6, pp. 157-
185). Itasca, IL: Peacock.

Thornton (Eds.), *The curriculum studies reader* (pp. 7-14). New York: Routledge.


101-113.


1-25.

pictures of embodied experience: The use of nonverbal data production for the study of
embodiment. *Qualitative Research in Psychology, 2*(3), 199-212.

Macmillan.


Denzin & Y. S. Lincoln (Eds.), _Handbook of qualitative research_ (2nd ed., pp. 105-117). 

and practice, 8_(3), 381-391.

Hall, G. S. (1891). The contents of children's minds on entering school. _The Pedagogical 
Seminary, 1_(2), 139-173.

practices_. New York: Teachers College Press.

Hammerness, K., Darling-Hammond, L., Bransford, J., Berliner, D., Cochran-Smith, M., 
Hammond & J. Bransford (Eds.), _Preparing teachers for a changing world: What 
teachers should learn and be able to do_ (pp. 358-389): Jossey-Boss.


Fullan, & D. Hopkins (Eds.), _International handbook of educational change_ (pp. 558-


Korthagen, F., & Vasalos, A. (2010). Going to the core: Deepening reflection by connecting the person to the profession *Handbook of reflection and reflective inquiry* (pp. 529-552): Springer.


Appendices

A. Participant Invitation Letter

McGill

Dear Teacher [name]:

You have been invited to participate in a research study related to my doctoral thesis in the Department of Integrated Studies in Education at McGill University. The purpose of the study is to examine how teachers reflect on and articulate their beliefs about teaching and learning, what forces influence the formation of those beliefs, and the teacher’s perception of the relationship between their beliefs and their teaching practices.

Research questions: This study will be driven by the following overarching research question: How do teachers reflect on and articulate their beliefs about teaching and learning and what are the implications for practice? The following sub-questions will provide the framework for data collection and analysis: How do teachers articulate their perceptions of practice as it relates to their pedagogical beliefs? To what extent do memories inform teacher perception of the development of their individual belief sets? How do teachers account for their pedagogical stances?

If you agree to volunteer for this study, you will be asked to participate in one interview and two focus group interviews. The individual interviews are estimated to last 1-1 ½ hours and focus groups will be designed to last no longer than 2 hours. Each will be scheduled to occur in a private setting in a school classroom or conference room outside the school day/school year.

The goal is to have 8-10 teachers participate in the study. Three to four of the participants will be invited to participate in one additional final interview to dig more deeply into the research questions.

The data I collect throughout this study will be treated with great care and attention to confidentiality. Each participant will select a pseudonym which I will use in the publication of any findings. I will take written notes at each interview and group session. With your permission I will also audiotape the sessions and then transcribe them into written transcripts. After each session you will be emailed a copy of the transcript including your statements. At that time, you are provided an opportunity to clarify any statement you made. I will also take a digital photograph of the object and collect the written reflection provided in the Object-Memory exercise and the written assignment associated with the curriculum ideology interview exercise.

No photographs will be taken of participants.

The audio-recordings, digital photographs, written reflections and interview transcripts will be stored on a password protected computer, as well as in a locked filing cabinet in my personal residence.

For further information, please see the attached Informed Consent form. In you agree to participate or have any questions concerning this research study, please contact me by via email at amy.cole@mail.mcgill.ca or by telephone at 802-734-0562.

Sincerely,

Amy L. Cole, PhD Candidate
Dept of Integrated Studies in Education
Faculty of Education; McGill University

For further information, please contact my supervisor:

Dr. Lynn Butler-Kisber
Dept of Integrated Studies in Education
Faculty of Education; McGill University
3700 McTavish St.
Montreal, QC H3A 1Y2
lynn.butlerkisber@mcgill.ca.
514-398-2252
B. Informed Consent Form

McGill University; Faculty of Education; Department of Integrated Studies in Education

<table>
<thead>
<tr>
<th>Study Name:</th>
<th>Teacher Pedagogical Beliefs and Perceptions of Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Researcher:</td>
<td>Amy L. Cole; <a href="mailto:amy.cole@mail.mcgill.ca">amy.cole@mail.mcgill.ca</a>; 802 734 0562</td>
</tr>
<tr>
<td>Supervisor:</td>
<td>Dr. Lynn Butler-Kisber, <a href="mailto:lynn.butlerkisber@mcgill.ca">lynn.butlerkisber@mcgill.ca</a> / (514) 398-2252</td>
</tr>
</tbody>
</table>

Date ______________________

Dear (participant name)

Purpose of this research
This research is being undertaken as part of a dissertation to fulfill the requirements of the PhD in Education from McGill University, resulting in my final doctoral thesis.

Problem Statement:
My research seeks to investigate the experienced teacher’s beliefs about teaching and learning, how they articulate those beliefs, what forces influence the formation of those beliefs, and the teacher’s perception of the relationship between their beliefs and their teaching practices. The study will focus on teacher leaders within a secondary setting, those who are in the position to serve as both classroom teachers as well as leaders within their own content area.

Research Questions:
This study will be driven by the following overarching research question: How do teachers reflect on and articulate their belief about teaching and learning and what are the implications for practice? The following sub-questions will provide the framework for data collection and analysis: How do teachers articulate their perceptions of practice as it relates to their pedagogical beliefs? To what extent do memories inform teacher perception of the development of their individual belief sets? How do teachers account for their pedagogical stances?

Why are we asking you?
We are asking you to participate because you are an experienced teacher who has undergone at least one school change event throughout your career.

What are we asking you to do?
We are asking you to share your instructional pedagogy, or beliefs about teaching and learning through the following events:

1) Initial Individual Interview – Each participant will be interviewed to collect data on the history/background of the participant and their beliefs about teaching and learning. Prior to participating in the interview you will be asked to produce and reflect upon any written teaching philosophy that you may have written early in your career. If you do not have a document that articulates your early teaching philosophy you will be asked to write a reflection on your memory of your early beliefs about teaching and learning.

2) Object-Memory Exercise – Each participant will be asked to choose an object that represents their beliefs. Once you’ve chosen your object, and prior to the focus group, you will be asked to write a short reflective piece describing why you chose the object. During the focus group you will be asked to share your object with others, describe your rationale for choosing the object and answer a series of questions.

3) Curriculum Ideology Exercise – Each participant will be invited to attend a focus group session where participants will respond to specific statements/questions as an exercise in uncovering individual curriculum ideology based on a modified version of Schiro’s curriculum ideology inventory (2008).

4) Final Interview – Three to four participants will be invited to a final individual interview to respond to a series of questions designed to dig more deeply into the events that contributed to the development of current individual beliefs and the implications for practice.
The individual interviews are designed to last no longer than 1-1 ½ hours and focus groups will be designed to last no longer than 2 hours. Interviews and focus groups will be scheduled to occur in a private setting in a school classroom or conference room.

Possible benefits to you
Your participation in the study would provide you with an opportunity to reflect on your pedagogical beliefs and the professional and personal experiences which may have helped to form those beliefs.

Concerns and questions
Your participation is entirely voluntary. No incentives will be offered for your participation. You are free to withdraw at any time without explanation. A decision to participate or not to participate will not influence the nature of the ongoing personal or professional relationship the participant has with the researcher and/or the nature of their relationship with McGill University either now, or in the future. If you withdraw from the study, your data will be destroyed and not used in the study or in any future publications or presentations, unless you agree otherwise in writing. In order to assure myself that you are continuing to give your consent to participate in this research, I will ask you during interviews whether you have any concerns or questions and if so, how you wish to have them addressed.

The data from this study will be used to help inform the study of teacher formation and the potential use of visual and memory-methodologies in educational research. However, it will also be used as the basis for conference presentations and writings intended for publication. Confidentiality will be assured by keeping your identity anonymous using pseudonyms and other means to disguise your identity as well as that of the school within which you are teaching. I will take written notes during interviews and focus group discussions. I am seeking your permission to audio tape your interview and take a digital photograph of the object you bring to the Object-Memory exercise. Audio-recordings are being used only for transcription purposes if needed. No photograph will be taken of participants. Use of the photos will adhere to the confidentiality assurances listed above. No photo of participants will be published or shared in any publication or conference presentation, only the photos of the objects themselves. Finally, I will be collecting written copies of each participant’s reflection of their “object” and the written answers on the curriculum ideology tool. These documents will serve as data for analysis. Quotes from these documents may be used in the published research findings and in future studies and publications or presentations.

Confidentiality within focus groups - Please be advised that although the researchers will take every precaution to maintain confidentiality of the data, the nature of focus groups prevents the researchers from guaranteeing confidentiality. Each participant is asked to respect the privacy of your fellow participants and not repeat what is said in the focus group to others. You will be asked to sign a non-disclosure statement below. If you cannot agree to the above stipulation please see the researcher as you may be ineligible to participate in this study.

Research data is destroyed within seven (7) years of the end of a study. Prior to that time, it will be stored in a secure location using two levels of security. The transcripts and audiotapes will be kept on a password-protected computer and the files will be stored in password protected folders. Audiotapes will be stored in a locked cabinet.

Contact information
The contact person for this research study is Amy L. Cole. You may contact me by phone at 802-734-0562 (cell) or via email at amy.cole@mail.mcgill.ca. You may also contact my supervisor Dr. Lynn Butler-Kisber at 514-398-2252 or lynn.butlerkisber@mcgill.ca. If you have any questions or concerns regarding your rights or welfare as a participant in this research study, please contact the McGill Ethics Officer at 514-398-6831 or lynda.mcneil@mcgill.ca.
Consent:
Your signature below indicates that you understand the conditions of participation in this study and that you have had the opportunity to have your questions answered by the researchers.

I agree to having my chosen object photographed for publication as part of this study. ___ Yes ___ No
I agree that my chosen object photograph can also be used/published in future related studies. ___ Yes ___ No
I agree to have my written reflection collected and curriculum ideology worksheet used as data for this study. ___ Yes ___ No
I agree that my written reflections and curriculum ideology worksheet can be used as data in future related studies. ___ Yes ___ No
I agree that my interview data can be used as data for future related studies. ___ Yes ___ No

Focus Group Non-disclosure statement
___ I agree to maintain the confidentiality of the information discussed by all participants and researchers during the focus group session. Note: Failure to agree to the non-disclosure statement will exclude your participation from the focus group sessions.

Please sign below if you agree to participate in this study.

Participant name __________________________________________
Signature _______________________________ Date ____________

A copy of this letter will be left with you and a copy will be kept by the researchers.

Sincerely,

Amy L. Cole, PhD Candidate
Dept of Integrated Studies in Education
Faculty of Education; McGill University

For further information, please contact my supervisor:
Dr. Lynn Butler-Kisber
Dept of Integrated Studies in Education
Faculty of Education; McGill University
3700 McTavish St.
Montreal, QC H3A 1Y2
lynn.butlerkisber@mcgill.ca.
514-398-2252
C. Interview Guide: Individual Interviews

(December 2013)

Purpose:
The intent of this interview is to collect initial background information (personal and professional) and begin to solicit the teacher’s perception of their teaching beliefs and what forces may have shaped those beliefs. Below is a semi-structured interview guide designed to frame the interview around a set of common data.

Introduction
Thank you for participating in this individual interview. This interview is designed to last approximately 1-1 1/2 hours.

Today I will ask you a series of questions designed to ask you to reflect upon your teaching beliefs and the events that may have contributed to the development of your current beliefs. At any time you can stop the interview and/or refuse to answer a question and still remain in the study. As the Informed Consent form indicates, I will be using audiotape for this session and will be taking written notes.

If at any time you would like to end the interview you may do so. If at any time you would like to withdraw from the study you may do so. In the case that you withdraw entirely from the study all data collected that relates to your participation will be destroyed and will not be used in the generation of findings within this study.

Interview questions
1) Let’s begin with some background information; we’re going to build a timeline of your professional career working backwards. Please describe your current teaching assignment and how long you’ve held this assignment and any other positions have you held in the teaching profession.
2) Now let’s go further back, tell me about your own experience as a student. How would you describe the type of student you were and your feelings about your own educational experience?
3) Please describe factors that led to your decision to become a teacher?
4) Please describe your teacher preparation program and how it may have influenced your beliefs and your teaching practices?
5) At the time you entered the profession, can you remember what motivated you and how you would describe your beliefs about teaching and learning? (At this point the teacher will be invited to share their any draft of an early teaching philosophy and reflect on how that has changed).
6) Today, how would you describe your core beliefs about teaching and learning? How have they changed over the course of your professional career?
7) Where there any events (personal or professional) that may have challenged or strengthened your beliefs?
8) As you now consider the span of your professional career, can you point to any other personal or professional events that may have influenced your beliefs and your practices? Please explain.
9) As you consider your current teaching position, how closely would you say your beliefs match your current practices? Explain.
10) If you were to be able to design a setting in which your beliefs could be more closely actualized, what would that look like?

Concluding statements:
Thank you for participating in this interview. I will transcribe your responses and email them out to you. You will then have the opportunity to clarify and/or revise your answers.

Your next event includes a focus group discussion. Between now and then I ask that you find an object that you feel best represents your teaching beliefs. Please write a short rationale for why you chose this object. Come to the focus group prepared to share your object and your rationale and answer a series of questions about your teaching beliefs.
D. Focus Group Interview: Object-Memory

Written Prompt and Focus Group Discussion Guide
(January 8, 2014)

Purpose:
Following a framework used in my prior study (Cole, 2011) participants will be asked to participate in a focus group discussion designed to further unpack their teaching beliefs and their perceptions of practice. Prior to participating in the focus group, teachers will be asked to choose an object that represents their teaching beliefs and write a short reflection explaining why they chose the object. During the focus group, participants will take turns sharing their object and describing their reasons for choosing the object. Data collected during this focus group will include (1) individual written reflection, (2) written transcripts of audio recordings of focus group discussion, (3) digital photographs of the objects, (4) researcher observations of focus group discussion, and (5) research memos. Below is a semi-structured focus group discussion guide designed to frame the interview around a set of common data.

Introduction
Thank you for participating in the Object-Memory exercise and for providing me with your written reflection in advance of this meeting. This session is designed to last approximately 2 hours.

Today I will ask each of you to take turns sharing your object and explaining why you chose the object. You may speak informally and/or read all or parts of your reflection. Following your presentation I will ask you some questions. Following my questions I will invite the other members of the group to ask clarifying or probing questions to give you an opportunity to reflect more deeply about your beliefs about teaching and learning. This is an open discussion. Please feel free to talk openly and ask questions during this session.

At any time you can stop the interview and/or refuse to answer a question and still remain in the study. As the Informed Consent form indicates, I will be using audiotape and taking written notes during this focus group discussion and with your permission I will take a digital photograph of your object.

Interview questions – Please share your object and explain why you chose the object to represent your teaching beliefs.

- What time period in your career does this object represent?
- What made you choose this object over others as your one object?
- Were there any significant personal or professional events surrounding this object?
- As you consider the beliefs you’ve just described, how closely does it match what you are currently doing in your present position? Explain.
- As you look at the object, what memories does it bring up for you?
- If you hadn’t chosen this object, what would your second choice have been?
- How closely do the beliefs you described match your current teaching practices? Explain.

Concluding statements:
Thank you for participating in this session. I will transcribe your responses and email them out to you. You will then have the opportunity to clarify and/or revise your answers.

Your next event involves a second focus group discussion. You will be asked to complete a curriculum ideology inventory which will help you to locate your teaching beliefs within Schiro’s curriculum ideology framework (2008). We will then discuss the results and further dig into your teaching beliefs within this framework.
E. Focus Group Interview: Curriculum Ideology

Curriculum Ideology Inventory Exercise and Discussion Guide
(January 15, 2014)

Introduction:
Thank you for agreeing to participate in this study and for completing the Curriculum Ideology exercise. This session is designed to last approximately 2 hours.

I will begin by providing you with a written description of Schiro’s Curriculum Ideology framework (2008) describing the four categories included in this tool. I will then ask you to look at your own responses and react to how your answers correspond to your beliefs against Schiro’s framework. I will then ask a series of broad questions to the group and I would like each individual to answer based on their individual comfort-levels. The questions are intended to guide the conversation in such a way as to elicit your reflections about your beliefs about teaching and learning. This is an open discussion. Please feel free to talk openly and ask questions during this session.

At any time you can stop the interview and/or refuse to answer a question and still remain in the study. As the Informed Consent form indicates, I will be using audiotape and taking written notes during this focus group discussion and with your permission I will be collecting a photocopy of your curriculum ideology inventory as a source of data for this study.

Interview questions –
1) What did the Curriculum Ideology tool provide in the way of your individual results and what are your thoughts or feelings about those results?
2) Were there particular statements or sections of the tool that you think impacted the results in some way?
3) What events or influences (now or in the past) do you attribute to the way in which your results may have come out?
4) As you reflect on the four categories that Schiro uses to convey pedagogical frames within different curriculum theories and school change reform initiatives, and you consider your own beliefs, do you see yourself landing in one or more categories? Please explain why?
5) As you think about your beliefs about teaching and learning (including your definition of knowledge, curriculum and assessment and the role of the teacher and learner in that paradigm) how closely does it represents what you are currently employing in your current professional position? Explain. What evidence do you have?
6) How would you say your current teaching beliefs match your school’s mission statement and learning expectations?

Concluding statements:
Thank you for participating in this session. I will transcribe your responses and email them out to you. You will then have the opportunity to clarify and/or revise your answers.
### F. Curriculum Ideology Inventory

Directions: In each section rate your statements 1-4 in the following way: (1) like the most to (4) like the least.

<table>
<thead>
<tr>
<th>Part 1 – Purpose</th>
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<tbody>
<tr>
<td>Schools should provide children with the ability to perceive problems in society, envision a better society, and act to change society so that there is social justice and a better life for all people.</td>
</tr>
<tr>
<td>Schools should fulfill the needs of society by efficiently training youth to function as mature constructive members of society.</td>
</tr>
<tr>
<td>Schools should be communities where the accumulated knowledge of the culture is transmitted to the youth.</td>
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<tr>
<td>Schools should be enjoyable, stimulating, child-centered environments organized around the developmental needs and interests of children as those needs and interests present themselves from day to day.</td>
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<tr>
<th>Part 2 – Teaching</th>
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<tbody>
<tr>
<td>Teachers should be supervisors of student learning, utilizing instructional strategies that will optimize student learning.</td>
</tr>
<tr>
<td>Teachers should be companions to students, using the environment within which the student lives to help the student learn.</td>
</tr>
<tr>
<td>Teachers should be aids to children, helping them learn by presenting them with experiences from which they can make meaning.</td>
</tr>
<tr>
<td>Teachers should be knowledgeable people, transmitting that which is known to those who do not know it.</td>
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<tr>
<th>Part 3 – Learning</th>
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<tbody>
<tr>
<td>Learning best proceeds when the student is presented with the appropriate stimulus materials and positive reinforcement.</td>
</tr>
<tr>
<td>Learning best proceeds when the teacher clearly and accurately presents to the student that knowledge which the student is to acquire.</td>
</tr>
<tr>
<td>Learning best takes place when children are motivated to actively engage in experiences which allow them to create their own knowledge and understanding of the world in which they live.</td>
</tr>
<tr>
<td>Learning best occurs when a student confronts a real social crisis and participates in the construction of a solution to that crisis.</td>
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<tr>
<th>Part 4 – Knowledge</th>
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<tbody>
<tr>
<td>The knowledge of most worth is the structured knowledge and ways of thinking that have come to be valued by the culture over time.</td>
</tr>
<tr>
<td>The knowledge of most worth is the personal meaning of oneself and of one’s world that comes from one’s direct experience in the world and one’s personal response to such experience.</td>
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<tr>
<td>The knowledge of most worth is the specific skills and capabilities for action that allow an individual to live a constructive life.</td>
</tr>
<tr>
<td>The knowledge of most worth is a set of social ideals, a commitment to those ideals, and an understanding of how to implement those ideals.</td>
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<tr>
<th>Part 5 – Childhood</th>
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<tr>
<td>Childhood is essentially a time of learning in preparation for adulthood, when one will be a constructive, contributing member of society.</td>
</tr>
<tr>
<td>Childhood is essentially a period of intellectual development highlighted by growing reasoning ability and capacity for memory that results in ever greater absorption of cultural knowledge.</td>
</tr>
<tr>
<td>Childhood is essentially a time when children unfold according to their own innate natures, felt needs, organic impulses, and internal timetables. The focus is on children as they are during childhood rather than as they might be as adults.</td>
</tr>
<tr>
<td>Childhood is essentially a time for practice in and preparation for acting upon society to improve both oneself and the nature of society.</td>
</tr>
</tbody>
</table>
Evaluation should objectively indicate to others whether or not students can or cannot perform specific skills. Its purpose is to certify students’ competence to perform specific tasks.

Evaluation should continuously diagnose children’s needs and growth so that further growth can be promoted by appropriate adjustment of their learning environment. It is primarily for the children’s benefit, not for comparing children with each other or measuring them against predetermined standards.

Evaluation should be a subjective comparison of students’ performance with their capabilities. Its purpose is to indicate to both the students and others the extent to which they are living up to their capabilities.

Evaluation should objectively determine the amount of knowledge students have acquired. It allows students to be ranked from those with the greatest intellectual gain to those with the least.

### Curriculum Ideologies Inventory Graphing Sheet and Sorting Form

**Sorting form:**

<table>
<thead>
<tr>
<th>Part 1 Purpose</th>
<th>Part 2 Teaching</th>
<th>Part 3 Learning</th>
<th>Part 4 Knowledge</th>
<th>Part 5 Childhood</th>
<th>Part 6 Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>D</td>
<td>D</td>
<td>A</td>
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</tr>
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<td>D</td>
<td>C</td>
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<td>C</td>
<td>C</td>
<td>A</td>
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</table>

**Graph your results**

<table>
<thead>
<tr>
<th>Part 1 Purpose</th>
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Where your answers fall in the 1’s and 2’s you favor this particularly ideology, where your answers fall in the 3s and 4s you disagree with the ideology and where it is erratic, you have mixed feelings.

G. Visual Data

Poem by Neil Gijes.

Poem by Neil Gijes.

Developmental Psychologist, Author, Teacher.

I've come to a frightening conclusion: that I am the decisive element in the classroom.

It's my personal approach that creates the climate.

It's my daily mood that makes a child's life miserable or joyful.

I can be a tool for torture or an instrument of inspiration.

I can humiliate or humor, hurt or heal.

In all situations, it is my response that decides whether a crisis will be deepened or assuaged and a child humiliated or dehumanized.
H. Data Analysis: Preliminary Coding Schema

I) Influences on the formation of teaching beliefs

Connection to research on teacher formation, teacher identity

ISI. Teacher as student - student identity
Reflections on student identity
- strong student
- struggling student
- lazy student
- humiliation
- misunderstood

Learning Experiences
Positive experiences
- was challenged, someone set high expectations
- someone cared about me
- positive student identity - was successful
- positive relationship with a teacher or teachers
- Negative learning experiences -in K-2 setting
- Was missing something
- emotional - was not respected, was humiliated,
- was not challenged
- poor student identity - struggled
- negative interactions with a teacher or teachers

IP. Teacher as person - personal lives/ influences
Childhood family/home life influence
- parents and other members - valuing education
- parents and other family members as teachers
- parents as role models
- socioeconomic status

Current home life
- being a parent
- being a community member
- personal relationships

IC. Passion for Content
- Love of content - passion for a subject area
- Strength in that content area as a learner
- Prior professional experience related to content area

IM. Mentors
- Teachers - former teachers/coaches
- Higher ed, pros (related to content)
- Teacher prep program
- Profs in teacher prep
- Quality of experience
- positive experience - fit growing beliefs and identity
- negative experience - didn’t fit beliefs, didn’t challenge
- neutral - wasn’t overly formative
- traditional vs. non-traditional teacher prep route
- Colleagues
- Family members
- Family members were teachers

IE. Environmental Influences - Professional
- Professional learning
- Professional Development (school initiated)
- Coursework (self-initiated)
- Colleagues
- Research
- multiple intelligences
- differentiated instruction
- backwards design and format teaching
- Education legislation
- that serve as leverage points - match beliefs and support the work
- that serve as barriers or distracters
- Changes in community demographics
- School or district initiatives
- School structures
- structures and environments that support beliefs
- structures and environments that serve as barriers

ISC. The Students and the Classroom
- Experiences with their own students
- Classroom as lab - honing teaching craft over time
- Looking at student work
B. Beliefs – Articulation of Beliefs

Connection to curriculum ideology - Discuss participant experience using Schiro’s framework

Cross connections with reflective practices

Beliefs matching practice
- set up learning environment to match pedagogy
- beliefs connected to content area methodology
- professional environment supporting desired practices

Practices not matching beliefs
- environmental restrictions, barriers
- content area doesn’t facilitate desired pedagogy
- school structures create barriers
- individual growth of beliefs over time, practice not catching up

PURP. Purpose - Relationship between teaching beliefs and purpose of school
- Perhaps make connection to Schooling by Design work - research related to school visioning work

PURP IND - Individual perspectives on purpose
- Equity of access, public school as the great equalizer
- To create contributing members of society; positive community members
- To create self-actualized adults, economically viable
- Teach learners how to learn
- Serve the public

Community of beliefs related to purpose
- Purpose not clear, lack of clarity & consensus
- Variety of beliefs & practices
- is a problem - inconsistency
- is health

- Other topics - connecting across themes
- Perhaps for Discussion/Implications section
SWI. School-wide implications

1) need for time for individual reflection
2) need for dialogue - build understanding
3) need for colleague collaboration
   a. collaboration creates quality work
   b. collaboration creates social learning - move from individual reflection to community of reflective practitioners (relate to Dufour’s work)
   c. collaboration requires understanding and compromise
4) consensus, compromise or understanding?
   a. Need for consensus – good for kids
   b. No need for consensus - value in variety
5) leadership
   a. teacher leadership - changing perspectives becoming a teacher leader
   b. need for school leadership – admin

Memos:
- Perhaps for discussion section?

REAS. Reason for becoming a teacher

1) love of content
2) love of learning
3) social mission -
4) giving back to students - replicating positive experiences
5) making reparations - ensuring students don’t experience the negative experiences I did
6) community - to be a member of community, give back to community

Memos:
- How does the reason for the choice impact beliefs and practice?
- Connection to Hammerness’s case studies connecting teacher choice, teacher job satisfaction with teaching environment matching reason for becoming a teacher?

TE. Teaching is emotional

- Observational data - Heavy on the observational data - teachers in nearly every interview and during Focus group 1.
- Some anecdotal data, consistent across most but not all participants

MEM. The Role of Memory

- What is the role in memory in the way in which teachers articulate the formation of beliefs?
- How has memory – construction of stories over time – helped teachers make meaning?

MET. Metaphors and the use of metaphors

1) circle, cycle, loop, ferris wheel, rubber band
2) journey, travel, adventure, chronology
3) reflection – mirror, reflective practices, knowing oneself
4) vision - view, lens, perspective, looking outward
5) energy, tension in rubber band, electricity, symbiotic relationships
6) web, connectedness, support, community, systemic relationships

- Connection to visual data - objects
- Why do we use metaphors to make meaning?
- Where would this fit? In the narrative analysis or perhaps the discussion?

REFL. Teaching is a reflective practice – need for reflection, individual and collective

- Observational data - Strong and consistent across all interview and focus group data sets. Frequent comments in discussion/implications.
## I. Data Analysis: Graphic Representation of Curriculum Ideology Inventories

This sample shows the graphic analysis conducted on each participant’s curriculum ideology.

### Samantha

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### Summary

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![Graph showing the distribution of pedagogical beliefs and perceptions among participants.](image-url)
J. Data Analysis: Concept Maps

How do teachers articulate their beliefs about teaching and learning and what are the implications for practice?

- How do teachers account for their pedagogical beliefs?
- How do teachers relate their perceptions of practice to their pedagogical beliefs or not?
- How do teachers describe how their beliefs are formed?

Questions for becoming a teacher:
There is a relationship between an individual's articulated reasons for becoming a teacher and the individual's pedagogical beliefs and practices.

Motivations for becoming a teacher
- Personal influences
- Family members
- Peer influence
- Educational experiences
- Professional development
- Personal goals
- Social influences
- Community support

When asked about their teaching beliefs, participants' articulated core beliefs. When engaged in an exercise, looking at beliefs against a school's framework of curriculum ideology, they connected their core beliefs to curriculum theory. What is the relationship between teacher's articulated "core beliefs" and pedagogical beliefs rooted in curriculum theory?
A THOUSAND ROSES: TEACHER PEDAGOGICAL BELIEFS & PERCEPTION OF PRACTICE

Influences

- Descriptors of self as student
- Childhood learning experiences
- Childhood family
- Current family life
- Love of content
- Prior professional experience with content
- Post-secondary experiences
- Teacher prep program
- Former teachers and coaches
- Family member role models
- Colleagues
- Professional learning
- External drivers
- School structures
- The classroom
- Experiences with students

Personal influences

- Student identity
- Passion for content

Formal learning

- Establishing beliefs through childhood schooling experiences
- Expanding upon beliefs through personal relationships
- Challenging beliefs in teacher education programs
- Supporting beliefs through mentoring
- Refining beliefs within professional contexts
Practice - Implications for practice

A teacher's ability to employ practices that match their beliefs is dependent on:

- The individual's ability to identify and articulate their beliefs
- Reflective practice
- Professional discourse

The environment of their professional environment:
- School mission
- School structures
- School practices

What opportunities does a teacher have to reflect upon and share their pedagogical beliefs with colleagues?

Does the school structures and practices facilitate the actualization of the school mission?