

12-15-2014

Beliefs, Practices, and Preservice Teachers: A Case Study

Janie Riddle Goodman
University of South Carolina - Columbia

Follow this and additional works at: <https://scholarcommons.sc.edu/etd>

 Part of the [Education Commons](#)

Recommended Citation

Goodman, J. R. (2014). *Beliefs, Practices, and Preservice Teachers: A Case Study*. (Doctoral dissertation). Retrieved from <https://scholarcommons.sc.edu/etd/2976>

This Open Access Dissertation is brought to you by Scholar Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Scholar Commons. For more information, please contact dillarda@mailbox.sc.edu.

BELIEFS, PRACTICES, AND PRESERVICE TEACHERS: A CASE STUDY

by

Janie Riddle Goodman

Bachelor of Arts
University of South Carolina, 1972

Master of Education
University of South Carolina, 1997

Submitted in Partial Fulfillment of the Requirements

For the Degree of Doctor of Philosophy in

Language and Literacy

College of Education

University of South Carolina

2014

Accepted by:

David Virtue, Major Professor

Victoria Oglan, Major Professor

Craig Kridel, Committee Member

Toni Williams, Committee Member

Lacy Ford, Vice Provost and Dean of Graduate Studies

© Copyright by Janie Riddle Goodman, 2014
All Rights Reserved.

DEDICATION

To Elizabeth, Catherine, James, and Christopher:

Your unwavering love and support made this dissertation possible.

To Freddy:

I could not have completed this journey without you by my side.

ACKNOWLEDGEMENTS

I first want to express my deepest appreciation to the major professors of my committee. Through her guidance, encouragement, and support, Dr. Victoria Oglan enabled me to stay the course and complete this dissertation. She is truly my kindred spirit. Dr. David Virtue encouraged me with his wise advice to “catch fish instead of sitting on the dock cutting bait.” They both have my unending gratitude for helping me through this process.

I would also like to thank my committee members, Dr. Craig Kridel and Dr. Toni Williams. It was a chance airport conversation with Dr. Kridel that gave me a boost just when I needed it. Together, they helped me think deeply about my interests and passions as a researcher.

I want to thank the university students in the content area literacy course whose written and spoken words provided opportunities for me to explore their thinking about themselves as readers and future middle level teachers. A special thank you goes out to Josh, Kayla, Lauren, and Megan.

I would like to acknowledge and thank my book club friends for their continuous support. Amy, Angela, Beverly, Mimi, and Pam have been the best cheerleaders I could have had. They never once failed to ask about both my studies and my research during our conversations over monthly dinner meetings.

I want to thank my entire family for encouraging me to believe in myself as I pursued my lifelong dream. They always knew how to provide the support I needed.

Thank you to my sister, Leslie, and my brothers, Mike, Phil, and John for understanding my commitment to this degree program. They celebrated my progress and continuously reassured me that I would reach my goal.

To my grandchildren, Adam, Emily, Ansley, Anne, and Baby Salley: My hope for them is that they will grow to become thinkers and dreamers who set their own goals and strive to achieve them.

Thank you to my daughter-in-law, Katie, and my sons-in-law, Travis and Rotie. They have been an important part of this process, and I thank them for their interest in and support of my research.

I offer a special thank you to my dear children, Elizabeth, Catherine, James, and Christopher. They were patient listeners whenever I was happy or cranky. They routinely checked on me to make sure I was doing okay in my little office in the attic. They motivated, supported, and loved me. I thank them for everything they have done for me throughout this process. They make me proud to be their mother.

Thank you to my husband, Freddy, who unwittingly found himself on the doctoral path when he agreed that I should begin this degree program. There were many times when I just wanted to quit, but he would not let me give up. I thank him for being by my side as my husband, my companion, and my friend.

Thank you to my late parents, Helen Gardo and Homer Riddle. They gave me the love for reading and learning, and I know they are always with me. Daddy, I kept my promise to you to complete this degree.

ABSTRACT

Existing in the chronology of content area literacy instruction is a convincing body of research that supports the role of strategic learning in students' literacy development. However, much of what is known about teaching reading comprehension strategies is not part of the instruction found in many secondary classrooms. Even though studies have shown how students benefit from using comprehension strategies, the instructional necessities for teaching those strategies are not part of many secondary teachers' practices. Additionally, the historical focus on literacy practices and strategies is shifting towards attention on the critical role of the disciplines in secondary literacy and the literacies integral to disciplinary practice. What is missing in content area literacy discussions is information about how teacher educators can facilitate preservice teachers' development of reading and literacy beliefs in order to prepare them to engage their future students in disciplinary literacy. The purpose of this study was to address this gap by exploring the role of the context of a required university content area literacy course on middle level preservice teachers' developing beliefs about reading and predicted literacy instructional practices.

Using a qualitative case study framework and constant comparative analysis, I examined how four focal participants developed beliefs and understandings about the roles of reading and literacy strategies instruction across and within content areas and disciplines. The context for the study was a university required content area literacy course in a middle level teacher education program. Based on my analyses of the written

documents, interviews, and reflective conversations of the members of the case group, I found that these preservice teachers reconciled their predetermined beliefs about reading and learning with their new learning about literacy strategies instruction to create images of themselves as future content area literacy teachers of middle level students. The study also offers implications to teacher educators of ways to create a context within the university content area literacy course that offers opportunities for preservice teachers to develop beliefs in line with current research about the teaching and learning processes of disciplinary literacy strategies instruction.

PREFACE

In *The Way It Is* (1998), poet William Stafford captured what I believe to be the essence of my dissertation journey:

There's a thread you follow. It goes among
things that change. But it doesn't change.

People wonder about what you are pursuing.

You have to explain about the thread.

But it is hard for others to see.

While you hold it you can't get lost.

Tragedies happen; people get hurt
or die; and you suffer and get old.

Nothing you do can stop time's unfolding.

You don't ever let go of the thread. (p. 42)

TABLE OF CONTENTS

DEDICATION	iii
ACKNOWLEDGEMENTS.....	iv
ABSTRACT	vi
PREFACE	viii
LIST OF TABLES	xii
LIST OF FIGURES	xiv
CHAPTER ONE: ARRIVING AT A STUDY OF PRESERVICE TEACHERS' BELIEFS ABOUT READING AND INSTRUCTIONAL PRACTICE.....	1
Beginning the Journey	3
Secondary Teachers' Beliefs, Attitudes, and Practices.....	9
Studies of Teachers' Reading Beliefs, Attitudes, and Practices	11
Disciplinary Literacy	14
Studies of Disciplinary Literacy	15
Statement of Purpose and Research Questions.....	17
Conclusion	18
CHAPTER TWO: THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE	19
Learning and Development.....	21
Reading as Process.....	36
Beliefs about Reading in Secondary Content Areas	41
Reading Demands of Disciplinary Literacy.....	42
Literacy in Disciplinary Discourse Communities.....	51
Teachers' Beliefs and Attitudes	58

Conclusion	65
CHAPTER THREE: METHODOLOGY – CONTEXT, DATA COLLECTION, AND ANALYSIS.....	67
Research Paradigm.....	68
The Research Setting	73
Researcher’s Role	75
Data Collection	78
Study Timeline.....	89
Data Analysis	98
Trustworthiness.....	109
Researcher Positionality and Subjectivity	118
Limitations	121
Conclusion	123
CHAPTER FOUR: FINDINGS: BELIEFS OF THE CASE GROUP.....	124
Initial Beliefs about Reading	125
Developing Beliefs about Content Area/Disciplinary Literacies.....	139
End-of-Course Beliefs about Literacy, Learning, and Predicted Instructional Practices	156
In Their Own Words	173
Conclusion	175
CHAPTER FIVE: DISCUSSION, IMPLICATIONS, AND NEW QUESTIONS	176
Exploring the Research Questions	178
Implications of the Study	200
Significance of the Study	210
Future Research Questions	213
Conclusion	214
REFERENCES	216

APPENDIX A: CONVERSATION/INTERVIEW LOG	246
APPENDIX B: SEMESTER PLAN	247
APPENDIX C: TALKING POINTS ABOUT REMEMBERING READING	248
APPENDIX D: MEAGAN’S SKETCH OF REMEMBERED READING.....	249
APPENDIX E: ELEMENTS AND RITUALS OF A LITERACY WORKSHOP MODEL OF TEACHING.....	250
APPENDIX F: TENETS OF READING COMPREHENSION AS A SOCIAL CONSTRUCTIVIST PROCESS	251
APPENDIX G: KAYLA’S REFLECTIVE POEM.....	252
APPENDIX H: LAUREN’S FINAL REFLECTIVE THOUGHTS	253
APPENDIX I: JOSH’S SELF-REFLECTION OF LESSON STRATEGIES	254

LIST OF TABLES

Table 2.1 Conceptual Tools Representing Transmission and Transformational Models of Teaching	27
Table 2.2 Principles of Learning for Underpinning Pedagogical Work	53
Table 3.1 Rationale for Data Collection	79
Table 3.2 Data Collection Timeline.....	90
Table 3.3 Definitions of Literacies	97
Table 3.4 Case Group Set—Individual Responses.....	99
Table 3.5 Case Group Set—Coding for the Early Analysis of Data	100
Table 3.6 Data Collection Totals by Type	102
Table 3.7 Case Group Data Set—Patterns of Beliefs	103
Table 3.8 Phase One: Case Group Data Set—Initial Categories	107
Table 3.9 Phase One: Case Group Data Set—Final Categories of Belief Statements....	108
Table 3.10 Guba’s (1981) Model of Trustworthiness in Qualitative Research	110
Table 4.1 Initial Beliefs about Reading	126
Table 4.2 Developing Beliefs about Content Area/Disciplinary Literacies	140
Table 4.3 Instructional Strategies for Improving and Deepening Reading Comprehension.....	141
Table 4.4 End-of-Course Beliefs about Literacy, Learning, and Predicted Instructional Practices	157
Table 5.1 Elements of Teachers’ Reflective Thinking	181
Table 5.2 Nature of Content Literacy Courses in Secondary Teacher Preparation Programs	186

Table 5.3 A Network of Processing Systems of Strategic Actions for Reading..... 190
Table 5.4 Principles That Guide an Active Learning Classroom 204

LIST OF FIGURES

Figure 2.1. Model of the interactive nature of the theoretical framework supporting teachers' beliefs as predictors of practice.	20
Figure 2.2. The increasing specialization for literacy development.	45
Figure 2.3. The contextualized nature of disciplinary literacy.	45
Figure 3.1. The 2013 demographic make-up of the EDML 470 student population in which this study took place.	74
Figure 3.2. 2013 areas of academic concentrations for middle level education students enrolled in EDML 470 in which this study took place.	75
Figure 3.3. Spradley's (1980) depiction of the social situation which includes the three primary elements.	76
Figure 3.4. Sample field notes page from my research journal showing observation notes.	82
Figure 3.5. Exit slip capturing Megan's notes, thoughts, and reflections after reading. .	84
Figure 3.6. Page from my research journal of a post observation with significant events and reflective thinking.	87
Figure 3.7. Memo of the August classes with my observations of the preservice teachers along with my thoughts and connections to theoretical perspectives.	88
Figure 3.8. Page from research journal showing how I recorded big ideas and named emerging possible patterns of beliefs and attitudes.	105
Figure 3.9. Excerpt of my written conversation with Beth about her strategy lesson. ..	116
Figure 4.1. Cyclical model of motivation.	131
Figure 4.2. Stages of development in the creation of lifetime readers.	131
Figure 4.3. Model of the change in a university student's self-image from student into teacher.	170
Figure 5.1. The recursive nature of the research questions and patterns of beliefs in the study.	179

Figure 5.2. Synergy created by the three components of the content area literacy course.	200
Figure 5.3. Implications of the study for university teacher educators of content area literacy courses.	201
Figure 5.4. Reflective cycle of literacy strategies instructional practice	210

Chapter One: ARRIVING AT A STUDY OF PRESERVICE TEACHERS' BELIEFS ABOUT READING AND INSTRUCTIONAL PRACTICE

My love of reading began in my early childhood when books became my best friends. Our mother would take my two brothers and me to the local public library every Saturday morning so we could read and check out books. She never rushed Mike, Phil, or me as we spent the morning together deciding on just which books to check out. Usually, we would sit together on benches under the big oak tree beside the library so we could start reading our books before we went home. Those library books were treasures to me as they introduced me to people and places far away from my little hometown in South Carolina. Through my books, I could go anywhere with anybody from the white swing on our front porch.

Everyone in my family knew how much I loved to read. When I was in elementary school, my parents and grandparents would surprise me with books for my birthday or Christmas. I grew up in a family culture where reading was valued and encouraged. Our mother and father instilled in my brothers and me a love of reading and learning; being readers was a major part of our lives and who we were.

Even though I was a happy, voracious reader in the swing on our front porch, I was a different reader in school. Reading in school meant plodding along in a story that, more often than not, did not make very much sense to me in a book that, more often than not, I did not select. In school, reading meant textbooks, making my way through SRA boxes of multicolored cards with texts printed on them, and taking multiple choice tests

to determine comprehension of what I had read. For me, school reading became a process of completing reading assignments and going through the motions of reading what my teachers told me to read and telling them what they wanted to hear. Nobody ever asked me what I thought about what I read.

While school reading held little excitement or interest for me, my love for personal reading grew as I continued reading books I chose from the library. As the years passed and high school graduation approached, I decided that going to college and majoring in English would provide me with four wonderful years of reading the days away. I pictured myself in college classrooms engaged in scholarly conversations with other students and professors who shared my passion for books and reading. When my father questioned the practicality of this decision, I decided my next best option was to become an English teacher. After all, as an English teacher, I would have my own classroom to fill with wonderful books. I pictured myself in a high school classroom engaged in scholarly conversations with adolescents who loved books and reading as much as I did. However, once I actually became an English teacher and had high school and middle school classrooms of my own, I quickly discovered that many, if not most, of my adolescent students did not share my passion for reading. Plus, I was expected to teach these students the same way I had been taught—textbooks, reading kits, and comprehension tests. My picture of scholarly conversations about books with my students disappeared as I conformed to the traditional structure of secondary school. As my students struggled to comprehend their textbooks, I realized I did not have adequate pedagogical knowledge to help them become better readers. If there was a secret to being a good reader, I did not know what it was. Why were so many of my students not able to

do what I knew how to do to understand the texts? Had I missed the part in my college education courses when someone mentioned that I might actually have to teach adolescents how to become better readers?

As years passed and my career path took me to various secondary schools and teaching positions, I discovered that I was not the only teacher who felt this way. Colleagues in other content areas complained of students who struggled to read the assigned textbooks. They looked to those of us who were the English teachers to solve all of the students' reading problems. There was a tremendous amount of grumbling, complaining, and frustration coming from teachers in all content areas, but nobody seemed to know what to do. Even though I earned a master's degree in reading to improve my knowledge of pedagogy and effective instructional practices, I knew there was still a gap between what I knew and how to use my knowledge to improve students' reading skills and comprehension of texts. I had to find a way to improve my teaching so I could better meet the instructional needs of my students.

Beginning the Journey

In the summer of 1999, I unknowingly started on a path that would help me understand how theory, beliefs, and instructional practices are synergic processes. That summer, while participating in the Midlands Writing Project, I had the opportunity to work collaboratively with other teachers as we read, wrote, and studied educational theory, research, and practice. From this transformative experience, I learned that what I had actually needed throughout my career were opportunities to study professionally alongside fellow teachers and engage in "inquiry reading" (Vacca, Vacca & Mraz, 2011, p. 146). As we read professional texts together, we asked questions, generated ideas,

posed problems, and worked collaboratively while discovering more effective reading and writing instructional practices to use with students. Engaging in collaborative learning experiences with peers provided opportunities for me to study and come to better understand the theoretical foundations undergirding effective instructional practices for improving adolescents' comprehension of texts.

Within this group of teachers, I found others who held the same beliefs I had about reading. Not only did we love to read, we realized reading made up a big part of both our personal and academic identities. We shared our thoughts about our professional and personal reading as we came together to form a community of literate thinkers, growing in our literacy and language processes of reading, writing, speaking, listening, and viewing. We studied how instruction based on the reading and writing workshop model (Atwell, 1998; Ray, 1999) would empower students to become actively engaged in their own learning as they made decisions about what and how they wanted to read and write during large chunks of work time in class. We learned we could help our students who had trouble reading and understanding their textbooks to become better readers and writers by offering alternative texts as we created text sets—collections of texts that vary in length, format, difficulty, and genre about a topic or theme (Atwell, 1998; Ray, 1999; Tovani, 2004). No longer did we need to rely primarily on one textbook; creating text sets would provide our students with more varied opportunities to practice reading strategies that would help them better comprehend the texts and learn content information (Atwell, 1998; Ray, 1999). We spent our days immersed in literacy as readers, writers, speakers, listeners, and viewers. We learned about best practices for literacy instruction that would provide our students with opportunities for social

interaction and literary talk with teachers and peers, a critical component of adolescents' development as readers, as we lived those practices each day. My long-ago vision of having scholarly conversations with students about books and reading was now ready to become reality.

In August, I returned to my classroom, determined to change my instructional practices based on my new knowledge of the workshop model. However, I soon discovered that change does not happen quickly. None of my students had experience with being in a classroom where they could make many of their own decisions about what and how they wanted to read and write. They were fearful and uncertain. I often heard students say, "Just tell us what you want us to do." What I came to understand was that the students did not believe in themselves as successful or engaged readers. They did not have the same vision I had of sitting together having scholarly conversations about books they themselves had chosen to read. However, we all persevered as I planned instruction in the workshop that allowed them to make their own, authentic choices about reading and writing engagements. My students and I began to work together as learners, and slowly we experienced the reciprocity of teaching and learning as they learned from me and I learned from them. I taught my students strategies for improving their comprehension that I learned from my continued professional reading. I was confident in the decisions I made about my instruction because I knew it was authentic, purposeful, and based on theoretical perspectives I learned from my summer in the writing project. I kept student learning at the heart of my instructional practice as my students lived classroom lives as scholars. They reflected on their own reading and writing by investigating, reading, thinking, and communicating about topics rather than plodding

along through a mandated textbook doing rote exercises (Alvermann, Phelps, & Ridgeway, 2007; Atwell, 1998). My students began to think about how they could use what they were learning about reading and comprehension of texts to help them better understand textbooks in their other content area classes.

Even though I often shared what I was teaching my students about effective reading strategies with many of my colleagues in various disciplines, most of these teachers did not have the interest in it that I had. When I shared with them how my students' understandings of what they were reading had deepened and broadened through our scholarly conversations, they often smiled politely and dismissively said, "You know those kinds of things only go on in English classes." The consensus of my colleagues seemed to be that teachers of history, science, and math were in no way responsible for helping students with reading or comprehension of the textbooks in their classes. I thought back to all of the complaining I had heard from teachers for so many years about how secondary students came to middle and high school without really knowing how to read. The mantra they believed went something like, "If those elementary school teachers would only do their job and teach students how to read, we wouldn't have a problem." I thought back to the early part of my career when I taught reading the same way I had been taught because I did not believe there was another way until I experienced the summer writing project. I thought back to my students who did not believe they could be successful readers and writers until they realized I believed in their abilities by offering them authentic learning engagements. I began to wonder about the role of teachers' beliefs on their instructional practices and how those beliefs impact student learning. I wondered what is was about the reading/writing workshop model of

instruction and belief in my students as learners that helped them successfully comprehend and understand texts in English Language Arts class while they struggled in their other content area classes.

I began the Ph.D. program with these questions and wonderings in mind, even though I was beginning to find some of the answers through my own workshop teaching and professional reading. I thought about the changes in many of my students' beliefs about reading. The reading/writing workshop allowed me to model the literacy strategies I used to comprehend texts instead of simply telling the students what they should do. I showed them how successful readers use multiple strategies while reading to help understand different types of texts. I realized I had found the answer to my long-ago question of why my students could not seem to do what I could do as a reader. How could they do it if I did not show them how to do it? The magic key I had been searching for my entire career was realizing my job was not to teach reading and writing—it was to teach readers and writers. Even though many students may have initially come into my classroom as reluctant readers, they generally ended the school year believing they either were or could become successful readers who better comprehended and understood the content and concepts in all their content area classes. As McKenna and Robinson (2014) noted, “The content literate student is one who can add new knowledge through reading, and refine and reorganize that knowledge through writing. These processes are not limited to certain subjects; they pertain to all areas” (p. 20).

I also came to understand that my students brought all their prior experiences as readers and their beliefs and attitudes about reading into the classroom with them. Many adolescent readers have negative attitudes toward reading because they do not have the

necessary reading competencies to read required texts in content area classes. Once a student encounters failure from struggling to comprehend a text, it is difficult to convince the student that reading is either fun or important (Lapp & Flood, 1978). In 2001, Graves reported that teachers are the most important sources for creating conditions in the classroom environment to promote student motivation to learn. By believing in their abilities as literacy learners, I helped my students see themselves as competent readers. Altering or changing some of their beliefs and attitudes about reading helped them become better readers as they strengthened and deepened their comprehension and understanding of texts.

Doctoral course work provided a way for me to explore ways in which theory impacts instructional practice and student learning. I came to understand how the reading/writing workshop model and my belief in my students as competent literacy learners created optimal learning conditions where theory, practice, and learning intersected. Analyzing my beliefs and practices and discovering how they were grounded in the influence of sociocultural perspectives of teaching and learning (Cambourne, 1988; Vygotsky, 1934/1978), language and discourse in teaching and learning (Lindfors, 1991; Wells, 1986), reading as a transactional, meaning-making process (Rosenblatt, 1938/1995, 1978; Smith, 1994, 2006) and teachers' beliefs and teaching behaviors (Dewey, 1938; Nieto, 2002) transformed my view of reading, writing, and learning.

As I transitioned from a classroom teacher to a university instructor in a teacher education program, I began to wonder about the reading beliefs and attitudes of the undergraduate middle level education students who enrolled in the required content area literacy course I taught. Had they ever thought about their own beliefs and attitudes

about reading and writing? What sort of literacy identities did they have when they thought about themselves as readers and writers? What literacy experiences with reading, writing, speaking, viewing, and listening had they had in their own educational lives? What types of reading did they do in their personal lives? How would they go about fostering their future students' interests in reading in their various content areas? Did they believe they were responsible for helping their future students become more proficient and strategic readers in the content areas? What beliefs and attitudes about reading would they pass on to their future students?

The more I thought about these questions, the more questions I had about preservice teachers and the part their literacy identities play in their developing beliefs about the relevance of content area literacy instruction. The evolution of my thinking led me to consider the impact preservice teachers' literacy identities and past experiences, their beliefs and attitudes about reading, and the effects of a literacy course foregrounded in disciplinary literacy would have on their predicted use of reading and disciplinary literacy strategies in future instructional practice.

Secondary Teachers' Beliefs, Attitudes, and Practices

Students who lack adequate comprehension strategies find it difficult and frustrating to read and learn from texts written to provide information in secondary content area classrooms. Even though decades of researchers have encouraged content area teachers in middle and high schools to incorporate reading into their instructional practices, they generally have not chosen to do so (Hall, 2005). Teacher educators have struggled to help content area teachers see the benefits of incorporating reading instruction into their classrooms (O'Brien & Stewart, 1990). However, many secondary

teachers remain “the sage on the stage” rather than making the commitment to improve their students’ literacy or implement reading comprehension strategies as part of their classroom practices (Alger, 2007).

The decisions that content area teachers make about what to teach and how to teach it may be largely influenced by beliefs about their work, students, subject matter, and roles and responsibilities (Buchmann, 1987; Pajares, 1992). Caine and Caine (1997) referred to these deeply entrenched beliefs, assumptions, and images that guide teachers’ thinking about schooling and practices in the classroom as “mental models.” These often are not created consciously and are very difficult to change, even when teachers receive evidence that refutes or contradicts their thinking. After all, teachers’ beliefs are amalgamations of their experiences as former students, all the teachers they encountered during their own educational lives, and the contexts of their own teaching careers (Lortie, 1975). Because people are often unaware of how their mental models control their actions, these models can block change unless they are purposely unearthed, examined, and challenged (Duffy, 2003; Senge et al., 2000). Considering preservice teachers’ beliefs and practices, Costa and Garmston (1994) stated:

While the traditional model of clinical supervision addresses overt teaching behaviors, we believe that these overt behaviors of teaching are the products and artifacts of inner thought processes and intellectual functions. To change the overt behaviors of instruction requires the alteration and rearrangement of the inner and invisible cognitive behaviors of instruction. (p. 16)

Teachers’ decisions and actions in the classroom have significant impact on the literacy and learning experiences provided for students, making it important to

understand preservice teachers' beliefs and the ways in which these beliefs may influence their predicted future teaching behaviors and practices. All teachers, both preservice and inservice, must make their invisible beliefs visible in order to examine the impact of those beliefs on their instructional decision-making. Kagan's (1992) study of teachers' beliefs found that no program of teacher education will effect change in teachers' behaviors without also effecting change in their personal beliefs. She concluded:

If a program is to promote growth among novices, it must require them to make their preexisting personal beliefs explicit; it must challenge the adequacy of these beliefs; and it must give novices extended opportunities to examine, elaborate, and integrate new information into their existing belief systems. (p. 13)

Studies of Teachers' Reading Beliefs, Attitudes, and Practices

The decisions that content area teachers make about what to teach and how to teach it may be largely influenced by their personal beliefs (Buchmann, 1987). Content area teachers not only have knowledge about the subject(s) they teach, but they also have a range of beliefs about what it means to be a teacher (Lortie, 1975; O'Brien & Stewart, 1990) and how students learn (Pajares, 1992). These content-specific beliefs usually reflect the actual nature of the instruction the teacher provides for the students (Kagan, 1992). Even though these beliefs may be mediated by epistemological differences across content areas or by the kinds of instructional materials that happen to be available (Wood, Cobb, & Yackel, 1990), it is teachers' beliefs that are more likely to dictate their actions in the classroom (Brown & Cooney, 1982; Ernest, 1989). For many teachers, asking them to change their instructional practices often means asking them to do things that sound completely hostile to them (Kise, 2006).

In Lesley's (2011) study of the written responses describing the reading and writing abilities and experiences for both in-school and out-of-school purposes of 114 secondary preservice teachers enrolled in a content literacy course, she found they believed literacy tasks, such as assigned formulaic writing and forced reading of textbooks and literature, were boring and irrelevant. She determined that this belief contributed to their lack of openness for adopting new literacy methods taught in content area literacy classes. She also found that the preservice teachers believed struggling readers in middle school or high school were incapable of making improvement in reading or comprehension. She stressed the need for teacher educators to address such intractable beliefs that were usually based on preservice teachers' own past school experiences. She concluded that teacher educators should address preservice teachers' previous experiences with literacy in school settings before any meaningful content area literacy instruction could occur.

O'Brien and Stewart (1990) studied 250 preservice teachers enrolled in a required content reading course and found they not only resisted content reading instruction but also believed they should not teach reading because it was incompatible with their views of the organization and traditions of secondary schools. Additionally, they found the preservice teachers had misconceptions about reading and made misassumptions about teaching and learning. For example, some believed pre-reading strategies were not practical because they took too much time and during reading strategies were not as important as post reading assessment. Some of the preservice teachers also stated a belief that content area reading instruction was appropriate only for the less academically oriented students or for certain content areas.

Donahue's (2000) study of the literacy beliefs of preservice science teachers enrolled in a content literacy course revealed that approximately half believed only English majors actually knew effective strategies for reading and writing. The teachers also believed science class was one place where students did not have to focus on reading and writing. One preservice teacher self-reported that she chose to major in science because she did not think of herself as a very good writer, and science would allow her to escape from what she thought were the writing demands found in other disciplines.

Daisey's (2009) study of 124 preservice teachers found that those who self-reported enjoying reading throughout their lives were more likely to envision themselves as teachers who would be positive reading role models and who would integrate reading into their future instruction than those who self-reported not enjoying reading throughout their lives. Additionally, in a study of 82 secondary preservice teachers' responses about their favorite reading experiences, Daisey (2010) found that even though 64.6% thought they needed to offer a variety of reading material to their future students and 59.8% understood that students need the skill and will to read, only 25.6% saw a need to explicitly teach strategies for use before, during, or after reading as a way to motivate students to want to read.

Scharlach's (2008) multiple case study of preservice teachers' beliefs in the context of tutoring struggling readers revealed the majority did not believe they were capable of or responsible for teaching all of their students to read more effectively. Their beliefs about teacher efficacy and responsibility influenced much of their thinking about expectations, instructional practices, and evaluation of the readers. Students tutored by those preservice teachers with high expectations for student success and high efficacy

were active and engaged in the activities. Even if the student did not meet reading expectations, the tutor felt responsible for the results. Conversely, students tutored by those preservice teachers with low expectations and low efficacy were passive learners. The tutors felt that other teachers, parents, or the students themselves were responsible when reading expectations were not met.

Disciplinary Literacy

Even though secondary teachers take preservice courses in content area literacy, these courses generally have been based on the assumption that teachers should supply the connections between content knowledge and literacy strategy implementation. Many courses in secondary literacy are crafted in the traditional pedagogical style generically connected to disciplines instead of considering the literacy demands within various disciplines (Conley, 2012). Content literacy courses tend to focus on the strategies themselves without providing teachers with opportunities to learn how to use those strategies to promote deeper student thinking or build conceptual knowledge.

Consequently, content area teachers find it difficult to understand how literacy strategy instruction can be applied in their day-to-day instructional practices with students. They are not able to see the underlying purposes behind overtly teaching literacy strategies; they miss not just the *how* but the *why* literacy strategies are essential to effective content area instruction (Conley, 2008; Palincsar & Schutz, 2011). Preparing content area teachers who are confident in their abilities to teach all students requires a focus on shifting their beliefs about literacy practices (Scharlach, 2008).

In their review of recent research and policy statements concerning adolescent readers, Fagella-Luby, Ware, and Capozzoli (2009) concluded that the first step in

improving outcomes for adolescent readers is having teachers improve their core literacy instruction by providing students with relevant literacy skills in specific disciplines in content area classrooms. Specifically, teachers should help students read, write, and think like critical text analyzers in English/Language Arts classes, historians in history/social studies classes, scientists in science classes, and mathematicians in mathematics classes. Also, education decision makers are being influenced by recently released action documents calling for the integration of literacy practices into the instruction of the disciplines (Buehl, 2011).

Studies of Disciplinary Literacy

Disciplinary literacy is impacting the way researchers and educators think about literacy and learning in content areas (Buehl & Moore, 2009; Draper, Broomhead, Jensen, Nokes & Siebert, 2010; Lee, 2004; Moje, 2007, 2008a, 2008b; Shanahan & Shanahan, 2008) as content literacy strategies are being adapted and modified to meet the content and textual demands of disciplines. Disciplinary literacy's underlying goal is to show students how to think and learn *with* text as they develop a deep understanding of concepts and ideas encountered *in* texts (Vacca et al., 2011). How students read, think, and learn with text varies from one content area to another. In its 2007 policy research brief, the National Council of Teachers of English states: "Even casual observation shows students who struggle with reading a physics text may be excellent readers of poetry; the student who has difficulty with work problems in math may be very comfortable with historical narratives" (p. 2).

Shanahan & Shanahan's (2008) study of secondary content area teachers found that while they did not widely accept incorporating general literacy strategies into their

teaching, they believed there were certain comprehension strategies that best fit particular disciplinary reading tasks. They went on to suggest the need for developing a literacy curriculum that better meets the particular demands of reading and writing in the disciplines than traditional content-area reading. Instead of focusing on basic comprehension strategies that can be applied to most texts and reading across the content areas, instruction in secondary reading and writing should become increasingly disciplinary.

Conley's (2012) study of preservice teachers enrolled in a secondary literacy course revealed that foregrounding disciplinary ideas in the course increased the likelihood they would integrate literacy practices into their future instructional practice. Having opportunities to think about how their disciplines connected to their beliefs and understandings of literacy and literacy instruction helped them develop professional identities. Additionally, Conley found that having opportunities for making important connections among content, students, instruction, and assessment allowed the preservice teachers to better integrate disciplinary learning and literacy practices.

Ness (2009) studied the use of and attitudes toward reading comprehension instruction in secondary content area classrooms. Her findings indicated an almost complete absence of reading comprehension instruction in science and social studies classes. The teachers she studied shared beliefs that reading comprehension was "a time-consuming detraction from their content coverage, or doubted their responsibility for or skill in providing such instruction" (p. 158). If future teachers are to understand the importance of content area literacy integration, Ness suggested the minimal coursework in literacy required in most teacher education programs may not be enough. If preservice

teachers are not provided disciplinary context and reflective opportunities in literacy courses, they may remain unconvinced of the importance of reading instruction (Moje, 1996).

Statement of Purpose and Research Questions

The purpose of this research was to explore middle level preservice teachers' past reading experiences and their initial beliefs and attitudes about reading, their beliefs and attitudes about a required content area literacy course that emphasized disciplinary literacy, and their predicted use of reading and literacy strategies in their future instruction. The study filled a gap in the research on how teacher educators can better prepare preservice teachers to meet the disciplinary literacy needs of all students by examining their preexisting beliefs about reading and reading instruction within the context of their disciplines. The specific questions guiding this study were:

1. How do preservice middle level teachers enrolled in a required content area literacy course initially describe their past reading experiences and their beliefs and attitudes about reading?
2. What are the effects of a required content area literacy course foregrounded in disciplinary literacy on preservice middle level teachers' beliefs and attitudes about reading and literacy strategies instruction in content area classes?
3. How do middle level preservice teachers' beliefs and attitudes about reading and disciplinary literacy affect their predictions of how they will integrate reading and literacy strategies into their future instructional practices?

Conclusion

Teacher educators must help preservice teachers understand the role their beliefs and attitudes play in influencing their teaching practices. As today's researchers and policy makers continue to express their concerns over struggling adolescent readers, teacher educators must explore avenues that will lead preservice teachers to better understandings of reading in academic disciplines in order to prepare them for disciplinary literacy practice.

The purpose of this study was to present the beliefs and attitudes about reading that middle level preservice teachers initially brought with them into a required content literacy course. Throughout the semester, as they and I worked and learned together about disciplinary literacy practices, they had opportunities to reflect on their new learning and how this learning affected their beliefs and attitudes about reading. They envisioned themselves as future teachers of young adolescents and planned how they could integrate reading and literacy strategies instruction into their content area teaching practices.

This study only presents the story of middle level preservice teachers enrolled in one section of a required content literacy course in a teacher education program and is not meant to be generalized. However, it is important for empirical research and relevant to teacher education policy to discover whether teacher education can impact preservice teachers' beliefs and practices (Tatto, 1998).

Chapter Two: THEORETICAL FRAMEWORK AND REVIEW OF LITERATURE

Four concepts served as the conceptual framework for this study: learning and development, reading as process, literacy in disciplinary discourse communities, and teachers' beliefs about reading and literacy. To understand how beliefs could shape predictions about integrating reading and disciplinary literacy practices into future content area instruction, I first had to recognize how the four concepts interacted with one another during pre-service teachers' studies of reading and writing in the content areas. This interaction, depicted in Figure 2.1., shows the positionality of middle level pre-service teachers' beliefs and the role of literacy as a fundamental aspect of disciplinary learning in the various discourse communities secondary students must navigate.

The foundation of this study was predicated on learning as an active process that develops in socially responsive environments and places the co-construction of knowledge at the center of instructional practice. While there is a plethora of literature supporting various theories of learning, this study focuses on social constructivist teaching and learning, reading as a transactional process for meaning-making with and through disciplinary texts, literacy and disciplinary discourses in the secondary classrooms, and the effects of teachers' beliefs on their instructional practices.

Teachers' Beliefs about Reading and Disciplinary Literacy

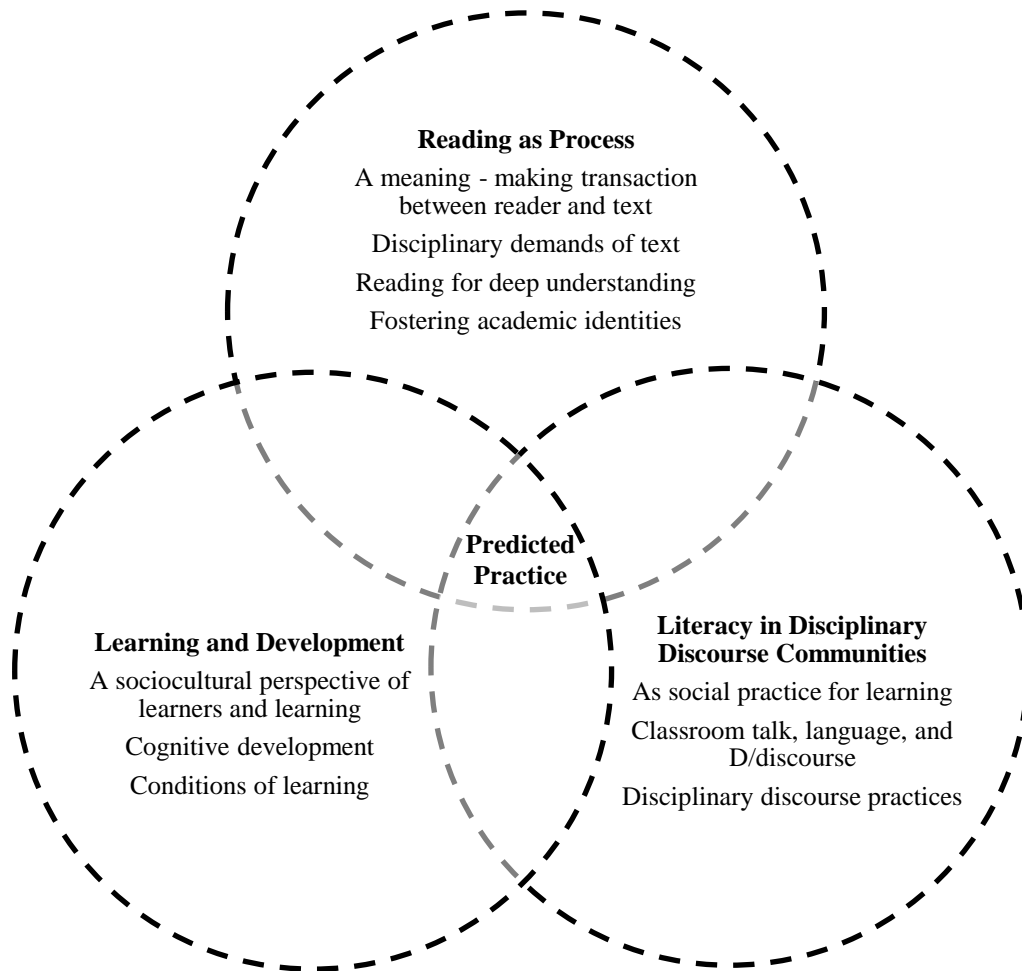


Figure 2.1. Model of the interactive nature of the theoretical framework supporting teachers' beliefs as predictors of practice.

The theoretical perspective of this study has four major components:

1. Learning is a contextual, socially constructed process that occurs best under optimal classroom conditions.
2. Reading is a meaning-making process, occurring in the transaction between reader and text.
3. Deep reading comprehension, language use, and disciplinary discourse cultivate critical thinking and learning of conceptual knowledge.
4. Teachers who are reflective practitioners can alter or change their beliefs about the realities of teaching and learning.

Learning and Development

What is literacy, and what does it mean to be literate? Anders and Guzzetti (2005) explain that “the definition of literacy is evolving to mean a complex system of tools that people use to negotiate and construct understandings of themselves and their world” (p. 26). This evolving definition includes four dimensions of literacy: text as a symbolic representation of experience; text-supported thinking and doing through critical and reflective thought; multiliteracies that encompass reading, writing, speaking, listening, and viewing; and literacy that is both collaborative and a social practice (Anders & Guzzetti, 2005).

Cambourne and Turbill (2007) remind us that moving into the 21st century calls for the creation of a new view of the concept of literacy, one involving a more complex set of skills than those understood in the past:

Today’s culture requires readers and writers to be able not only to read and write for pleasure and information but to ask questions of the text, to recognize how the

writer tries to position the reader, and to understand that literacy is used for social purposes. Literacy and the teaching of literacy have become more complex and reach out across wider and wider audiences, so that we now accept that we are lifelong literacy learners. (p. 23)

Establishing this new view of literacy requires teachers to combine pedagogical and content knowledge as they create ideal classroom conditions where students can grow in understanding themselves, others, the discipline, and ultimately, the world (Anders & Guzzetti, 2005). However, creating these ideal classroom conditions is predicated on teachers' beliefs about how students learn and develop deeper understandings of disciplinary and content area concepts. Teachers' beliefs determine their instructional practices, regardless of whether they believe students learn best on their own instead of collaborating with others, or content should be taught as rote memorization of discrete bits of information rather than being embedded in an authentic, meaningful context. Because teachers filter curriculum through beliefs, their instructional practices become the enacted curriculum, influencing the opportunities students have "to use their developing literacy as tools for negotiating meaning in the content areas" (Anders & Guzzetti, 2005, p. x).

Even though secondary content area teachers are customarily expected to have deep content knowledge about the subject(s) they teach, they may hold a wide range of beliefs about pedagogy, what it means to be a teacher, and how students learn (Buchmann, 1987; O'Brien & Stewart, 1990; Pajares, 1992). How a teacher views teaching and learning can lead to dramatically different curricular decisions, pedagogical approaches, expectations for learning, relationships among students, teachers, and

families, and educational outcomes (Nieto, 2002). In classrooms with sociocultural foundations, cooperative and collaborative interactions between and among the teacher and students become the norm. Scaffolding of learning opportunities provides the necessary support for novice learners of new content to be apprenticed alongside more knowledgeable others. Having an emphasis on the classroom as a “community of practice” supports active student engagement and meaning-making with and through texts. The teacher’s use of language and discourse to model strategies (i.e., specific questioning techniques, reciprocal teaching, exploratory talk) for helping students talk and reason together effectively reflects responsive teaching methodology (Gillies & Boyle, 2008).

Sociocultural Perspective on Learning

Learners of all ages try to make sense of their experiences and the world around them by synthesizing the present moment with their own prior knowledge, conditions of learning, and mental understandings. Constructivists believe the learner builds knowledge through a process of interaction, reflection, and action (Dewey, 1938). Within this framework, Vygotsky (1978) presented a sociocultural lens with his belief that understanding is generated by the learner’s interaction with the social milieu (Rushton, Eitelgeorge, & Zickafoose, 2003). In his analysis of Vygotsky’s theory, Eun (2010) concluded that social interaction between two (or more) people is the most motivating force in human development. Additionally, the use of language provides one of the most effective means of social interaction, allowing people to co-construct knowledge by collaborating and building on each participant’s contribution.

Sociocultural Aspects of Cognitive Development. Vygotsky (1978, 1987), who described adolescence as an essential period in the development of thinking, warned that the adolescent's thinking does not develop "all the potentials inherent in it" when the environment "fails to create appropriate tasks, advance new demands, or stimulate the intellect through new goals" (p. 214). His words become prescient when current demands by policy makers for educational reform are considered. Calkins, Ehrenworth, and Lehman (2012) explain how the implementation of the Common Core State Standards (NGA Center & CCSSO, 2010) will "strengthen student-centered, deeply interactive approaches to literacy, approaches that invite students to live richly literate lives, using reading and writing to pursue goals of personal and social significance" (p. 2). If teachers are to help adolescents reach their full potentials for thinking and learning, they must create classroom environments that support Vygotsky's sociocultural aspects of cognitive development: *mind*, *tools*, *Zone of Proximal Development (ZPD)*, and *community of practice* (Mantero, 2002; Nuthall, 1997; Palincsar, 1998; Wang, Bruce, & Hughes, 2011).

Mind. Vygotsky's first aspect, *mind*, extends beyond simply a person and people. Mental habits and functioning are dependent upon and cannot be separated from social activities, interactions, and communication with others, which are also affected by environment, context, and history (Good, 2011; Johnson, 2009; Mantero, 2002). Vygotsky's use of the "socially meaningful activity" (Dixon-Krauss, 1996, p. 9) relates the social interactions within the learner's environment to the definition of learning as "the process whereby knowledge is created through the transformation of experience" (Kolb, 1984, p. 38). This perspective yields an emphasis on learning as an adaptive

process as opposed to content or outcomes, and knowledge as a transformative process as opposed to an independent entity to be acquired or transmitted (Kolb, 1984). Learning that involves a transaction between a person and the environment is “an active self-directed process that can be applied not only in the group setting but in everyday life” (Kolb, 1984, p. 36). Thus, student learning is framed within the context of the classroom environments, learning engagements, and activities that teachers create. How teachers perceive students, teaching, and learning is affected by their beliefs. This, in turn, evokes classroom behaviors from them that are consistent with those beliefs. Teachers’ beliefs and behaviors create self-fulfilling prophecies about students, teaching, and learning (Dignath-van Eijwik, & van der Werf, 2012).

At the heart of a sociocultural view of learning is the belief that understanding results from social interaction with others. As Vygotsky (1978) wrote, “Learning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and in cooperation with his peers” (p. 90). From the Vygotskian perspective, learning and development are conceptualized as interdependent processes in which the one is converted into the other instead of being separate and isolated. It is when external knowledge and abilities in children become internalized that a variety of development processes are set in motion. Thus, developmental processes do not coincide with learning processes but rather lag behind (Vygotsky, 1978). Teachers who hold this perspective challenge the idea that knowledge is passively acquired as a result of being told or shown. They reject the transmission approach to teaching and learning—a model in which the teacher is the knowledge dispenser with learners listening, observing, answering questions, and following

directions. Instead, they propose that coming to know always involves an active construction process—one in which new information must be brought into relationship with what is already known (Garcia, Pearson, Taylor, Bauer, & Stahl, 2011; Wells, 2009). Wells (1986) explained:

Knowledge cannot be transmitted. It has to be constructed afresh by each individual knower on the basis of what is already known and by means of strategies developed over the whole of that individual's life, both outside and inside the classroom. (p. 218)

A teacher who believes learning is a sociocultural process does not create a classroom environment where content is simply transmitted as discrete facts or bits of information. Students do not sit in desks placed in long rows, working by themselves without conversations or interactions with others. Rather, this teacher creates a classroom environment where learning is co-constructed and transformed through authentic, cooperative engagements as teacher and students work reciprocally through conversations, interactions, negotiations, and collaborations; it is a classroom where all minds are actively engaged and learning is a natural expectation. As Frank Smith (1989) said, "Learning is what the brain does. Learning is as natural for the brain as breathing is for the lungs" (as cited in Cambourne, 2002).

It is helpful to think of the development of curriculum and pedagogy as a continuum with the traditional/transmission and constructivist/transformational models of teaching as anchors on each end. On one end, the traditional/transmission model of teaching moves in a linear fashion to explicitly set out the skills, knowledge, and understanding that students are to individually acquire on a predetermined path. There is

little room for teacher and student autonomy as the curriculum is textbook-driven. On the other end, the constructivist/transformation model of teaching provides students with wide power over self-regulated learning through their collaborative participation with teachers and peers in authentic disciplinary engagements. The gestalt of constructivist teaching methods allows curricular movement which can be envisioned as a starburst with a myriad of radiating resources and learning engagements emanating from a central disciplinary theme, topic, or concept. Basil Bernstein (2000) created conceptual tools to represent these two models of teaching, as depicted in Table 2.1.

Table 2.1

Conceptual Tools Representing Transmission and Transformational Models of Teaching

Traditional/Transmission Models of Teaching	Constructivist/Transformational Models Of Teaching
<i>Strong classification</i> Clear boundaries between subjects	<i>Weak classification</i> Weak boundaries between subjects
<i>Strong framing</i> Weak control by teacher and learner over pedagogy	<i>Weak framing</i> Strong control by teacher and learner over pedagogy
<i>Visible pedagogy</i> Results from strong classification and framing, giving teachers explicit control of imparting knowledge to students	<i>Invisible pedagogy</i> Results from weak classification and framing, providing reciprocity of teaching and learning through teacher/student collaboration

Note. In analyzing the structure of curricular and pedagogic discourse, classification describes the degree of boundary maintenance between subjects, framing refers to the pedagogic context in which knowledge is transmitted, and visible/invisible pedagogies are characterized by the degrees of classification and framing. Based on “Bernstein’s (1974, 1977) Binaries” by J. Larson and J. Marsh, 2005, *Making Literacy Real: Theories and Practices for Learning and Teaching*, pp. 6-8. Copyright 2005 by SAGE Publications.

If teachers have conceptual knowledge and student learning at the center of their praxis, they must become reflective practitioners who carefully consider the ways theory and practice relate to each other in their classrooms. Thus, praxis becomes a reflection of

teachers' beliefs about the structure of curricular and pedagogic discourse (Larson & Marsh, 2005).

Researchers have documented how students develop *tools of the mind* through their interactions with the social environment. In their study of high school teachers' beliefs about cooperative learning, Gillies and Boyle (2008) found they believed some of the benefits came from helping students see the value of the process, learning to develop authentic learning rather than repetition, and achieving quality outcomes. They further stated group work was beneficial to students by enabling them to socially construct new ways of thinking and reasoning, evident both in the process of learning and in the outcomes they achieved.

King, Staffieri, and Adelgais (1998) concluded students engage in higher-order thinking and learning when they are explicitly taught to ask cognitive and metacognitive questions during cooperative learning engagements. These types of questions challenge their partners to think about the information they are learning and connect new information to something they already know.

Similarly, Palincsar and Herrenkohl (2002) found that students engage more effectively in scientific argumentation during cooperative learning engagements when they are explicitly taught how to think about the material presented, relate it to theories and predictions, and pose questions that challenge others' perspectives of the information.

These studies serve as examples of resultant learning and development when students have opportunities to interact with teachers and peers, cultural artifacts, and culturally specific practices in classrooms. In these classrooms, students become active

participants as they construct knowledge instead of simply mirroring the world around them, an idea at the core of Vygotsky's (1978) theory for creating *tools of the mind*.

Tools. Vygotsky's second aspect of cognitive development, tools, refers to those "signs used as psychological tools to mediate mental activity" (Wells, 1994, p. 46). These systems of communication, or semiotics, include, but are not limited to, language, systems of counting, algebraic symbol systems, works of art, diagrams and maps, writing, computers, calculators, paint brushes, etc. (Vygotsky, 1981; Scott & Palincsar, 2013). Thus, the tools facilitate students' co-construction of knowledge in addition to becoming internalized to help them in future independent problem-solving activity (Scott & Palincsar, 2013). Characterizing this process of internalization as appropriation, Leontyev (1981), a colleague of Vygotsky, wrote:

[Children] cannot and need not reinvent artifacts that have taken millennia to evolve in order to appropriate such objects into their own system of activity. The child has only to come to an understanding that it is adequate for using the culturally elaborated object in the novel life circumstances he encounters. (as quoted in Newman, Griffin, & Cole, 1989, p. 63)

With today's teachers called to be literacy teachers, it becomes necessary to define what counts as tools, or what is usually considered to be the text, for each discipline (Draper & Siebert, 2010). Traditionally, the term *text* has been used for written or printed words, sentences, and paragraphs. In redefining *text*, Draper and Siebert (2010) state: "A text is any representational resource (Cope & Kalantzis, 2000) or object that people intentionally imbue with meaning, in the way they either create or attend to the object, to achieve a particular purpose" (p. 28). When teachers come to believe

reading is an act of making meaning with and through text, it becomes necessary for them to immerse their students into the discourse of the discipline and provide a disciplinary lens for their reading. This includes utilizing all of the tools necessary for making meaning within the discipline to help students adjust their thinking to correspond to the way scientists, historians, mathematicians, authors, and other disciplinary experts think when they are engaged in reading and learning in their respective disciplines (Buehl, 2011). Students learn how to utilize the requisite tools of each discipline, enabling them to develop deep understanding and comprehension of disciplinary concepts.

Zone of Proximal Development (ZPD). The third aspect of cognitive development, *the Zone of Proximal Development (ZPD)*, was defined by Vygotsky (1978) as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 85).

The actual developmental level refers to those accomplishments a learner can demonstrate or perform independently. The potential developmental level refers to content or concepts the learner cannot master independently but can learn with guidance and encouragement from a more knowledgeable person (Wang et al., 2011). It is this interaction between learners with others that is crucial to the co-construction of learning; learners can surpass their own limits with assistance (Eun, 2010; Lindfors, 1991).

If teachers are to help students become better, more proficient readers of the texts in their disciplines, it becomes necessary for teachers to know their students as readers. As teachers engage students in talk about readers and reading, they sustain conversations

in which they often lack completely clear understandings of each other as they try to work out what the other might mean. It is recognition of this *indeterminacy of discourse* (in Newman, Griffin, & Cole's term) that allows teachers to establish a zone of proximal development (ZPD) with students.

Discourse utterances may have multiple functions—from transmitting information to managing and modifying the social situation in which the conversation takes places. As teachers and students engage in indeterminate discourse, they seek a common ground of comprehending and understanding, even though the meanings and understandings each brings to the discourse may be quite different. Thus, the “ZPD becomes the locus of social negotiations about meanings, and it is, in the context of schools, a place where teachers and pupils may appropriate one another's understandings” (Newman, Griffin, & Cole, 1989, p. xii). Students who engage in complex, shared activities with teachers and other students within the parameters of their ZPD have opportunities to appropriate another's thinking as they create new meanings and understandings of disciplinary bodies of knowledge.

Researchers have studied students' reading behaviors when the role of the ZPD is considered a part of the reading process. In her study of first graders, Dixon-Krauss (1995) found an improvement in students' reading, writing, and abstract thinking when they had both teacher and peer support in the ZPD. Salomon, Globerson, and Guterman (1989) found seventh-grade students' intellectual partnerships with a computer tool which provided reading related, metacognitive-like guidance led them to internalize the guidance, resulting in better text comprehension and writing ability. The researchers concluded that the computer tool, instead of a person, served as the more capable peer

within the students' ZPDs. Colby and Atkinson (2003) found both preservice and inservice teachers learned best about how to teach in a learner's ZPD when their university course in reading remediation was structured within their own ZPDs. Building on the notion that learning can be maximized when teachers have a heightened awareness of their students' ZPDs, they studied the effects of one university instructor who assisted her graduate students' performance as they learned to teach, scaffold, and support struggling readers. By structuring the university course within the graduate students' ZPDs, they learned *about* the ZPD while learning *in* the ZPD.

Community of Practice. Vygotsky's fourth aspect of cognitive development is *community of practice*. Authentic learning within a discipline or content area is perceived as a process of becoming a member of a group of people who have a special expertise in an area of significant cultural practice, such as mathematicians, historians, scientists, or literary scholars (Mason, 2007; Nuthall, 1997). Teachers must give attention to the discourse, norms, and practices associated with particular disciplines or content areas. In this classroom environment, the teacher's goal of instruction is to support students as they engage in the activities, talk, and use of tools in a manner that is consistent with the disciplinary practices of the community to which they are belong (Scott & Palincsar, 2013).

For example, Draper and Adair (2010) note how "science educators recommend that students *learn* science in a way that closely matches the way scientists *do* science" (p. 129). Shanahan and Shanahan (2008) revealed how content experts and secondary content teachers read their respective texts quite differently and, consequently, recommended different comprehension strategies for students. Considering which

comprehension strategies might best fit particular disciplinary reading tasks situates the secondary classroom as a community of practice that honors both disciplinary content and process. Students come to realize that disciplinary learning is a human endeavor, and, ultimately, can discover for themselves the nature of the discipline (Draper & Adair, 2010).

Sociocultural Perspectives of Conditions of Learning

It is necessary for teachers to understand how to create classroom conditions that support students' active engagement while co-constructing knowledge. After studying children's language development, Cambourne (1988) developed a theory of learning that he called his "Conditions of Learning." Observations have shown students' learning is more effective when teachers simulate these conditions in their classrooms (Cambourne, 2002). The theory is a series of eight interconnected and reciprocal conditions (detailed below) for teachers to use to facilitate students' understanding of the learning process (Rushton et al., 2003).

- Immersion – Students must have opportunities for learning through access to multiple and varied forms of appropriate texts provided by teachers.
- Demonstration – Students need to receive many demonstrations of teacher-modeling to understand how texts are constructed and used.
- Engagement – Students need to be active participants in their learning. Opportunities need to be provided for both independent and shared reading, writing, and discussion.
- Expectations – Students' interests and aspirations to succeed develop when teachers believe in their abilities.

- Responsibility – Students need to make their own decisions about when, how, and what “bits” to learn in any learning task. Teachers need to provide choices for individual differences. Students who lose the ability to make decisions are disempowered.
- Employment – Students need time and opportunity to use, employ, and practice their developing control in functional, realistic, and non-artificial ways.
- Approximations – Students must be free to approximate the desired model – “mistakes” are essential for learning to occur.
- Response – Students must receive feedback from exchanges with more knowledgeable others. Response must be relevant, appropriate, timely, readily available, and non-threatening, with no strings attached. (Cambourne, 1995)

Research findings encourage teachers to design classroom environments that encourage and support students’ innate capacities to learn. In describing Rushton’s (2001) study of a childhood setting created using Cambourne’s Conditions of Learning and a constructivist philosophy, Rushton et al. (2003) wrote:

This setting helped create opportunities for the students to take responsibility for their learning, encouraged literature response activities, allowed for open dialogue to take place between the students and the teachers, fostered the integration of curriculum across all content areas, and provided opportunities for meaningful problem solving. (p. 12)

When the principle of learning as an active, constructive process and Cambourne's Conditions of Learning are applied, a creative learning environment is fostered within the classroom—one which encourages students to create knowledge and grow as independent problem-solvers.

Classroom Applications of the Conditions of Learning. Teachers who integrate Cambourne's framework into their classroom environment recognize that all students first need to be *immersed* into the culture, knowledge, and curriculum of the classroom to make sense of their environment. They provide exciting and stimulating *demonstrations* to help the learner experience the desired learning outcome. While the learner is immersed in the environment and viewing demonstrations, the teacher encourages the learner to be actively *engaged* in the learning process while creating knowledge. Teachers set *expectations* high enough to challenge the students while simultaneously avoiding the risk of failure. By doing so, students can master the content and take *responsibility* for their learning. They provide enough experiences and opportunities for the students to *employ* or *use* the learning both individually and in a social context. They know an important part of the learning process is giving learners opportunities to *approximate* the desired outcome without fear of harsh criticism or punishment. They routinely provide students with relevant, appropriate, and timely feedback and a *response* to the learning experiences so students can assess where they are in terms of desired outcomes (Cambourne, 1995; Robb, 2000; Rushton et al., 2003).

Engaging in pedagogical practices grounded in sociocultural theory means teachers believe in going beyond the mere transmission of information and instead create classrooms which engage students in creating and co-constructing disciplinary and

content area knowledge. In a sociocultural classroom, there are supportive, honest, and inclusive relationships between and among those who are in the learning community (Atwell, 1998; Ray, 2001; Rogoff, 1994). Learners have an authentic need to construct meaning and knowledge individually through deep reflection of their own assumptions or states of knowledge, and collaboratively through oral and written language. There are both time and opportunity for students and teachers to learn and grow in their knowledge and understanding (Cambourne, 2000/2001).

Reading as Process

In *Adolescent Literacy: Turning Promise into Practice* (Beers, Probst, & Rief, 2007), Ellin Keene (2007) wrote:

I can think of nothing so gratifying in teaching as introducing students to a more intellectual life—a life in which text messaging and iPods play a role, but in which time in class is spent in the pursuit of ideas that have intrigued readers and writers, scientists and historians, artists and musicians for generations. (p. 38)

She went on to describe the pervasiveness of disengaged adolescents who inhabit secondary classrooms. She wrote of adolescents who do not retain or apply concepts or articulate their thinking. Even though they may seem to read, they have no real idea about what they have read. They are engaged in “fake reading” (Tovani, 2000).

Reading, even for the most skilled readers, is not always easy. Challenging texts can confound any reader; comprehension and deep understanding require more than simply memorizing discrete pieces of information. The question confronting teachers becomes: What does it mean for students to really understand the texts they are reading? To define what I mean by “deep comprehension of text,” I will refer to Keene’s (2007)

Dimensions of Understanding. From her research, she has concluded that when we understand we:

- *concentrate* intensively by working fervently in the experience of thought.
- *dwell* in ideas as we listen to our own thinking and reflect purposefully on an idea.
- *struggle* for insight as we venture into new learning territory.
- *manipulate* our thoughts to understand more completely.
- *explore* a wide range of topics and interests, texts and genres.
- *discuss* by engaging in rigorous discourse and consider the perspectives of others.
- *create* models to help us remember and create new knowledge.
- *feel* because our experience is enriched when we create something that matters to others.
- *remember* because the experience becomes potently memorable to us. (p. 35)

Students, and even teachers, can lose sight of comprehension as the central purpose of reading. Students *do reading* to complete assignments rather than *engaging in reading* to understand. Research results show that if content area teachers teach students to apply fundamental comprehension processes and strategies to text, their comprehension of those texts will improve. This builds their capacity to learn independently from future texts. When teachers embed comprehension development and deep understanding of text into the daily classroom routines of learning content and reading disciplinary texts, students grow in their ability to read more complex and varied texts (Buehl, 2011; Keene & Zimmerman, 2007; Pearson, 2009).

A Transaction between Reader and Text

Louise Rosenblatt's (1938/1995, 1978, 2005) belief that each reading experience is unique to an individual is based on her idea that we all possess unique schemas, or knowledge structures, for everything in our lives. This belief became the cornerstone of her Transactional/Reader Response Theory. For example, if several students read the same piece of text, each will have a different response to the text, resulting from the differences in the amounts and kinds of background schemas each student possesses (Tracey & Morrow, 2006). It is in the exchange, or transaction, between text and reader that meaning is created—an opportunity for readers to explore and create by realizing potential. The knowledge a reader gains by reading does not come from the text itself; it is something new that the text has enabled the reader to create (Probst, 2004).

Rosenblatt (1938/1995, 1978, 2005) also purposed that all readers have two kinds of responses to texts—*efferent*, or fact-oriented responses, and *aesthetic*, or personal and/or emotional responses. Teachers must understand that when they design instruction for students, expository text generally elicits an efferent response while narrative text draws on the aesthetic. Negotiating two different kinds of reading responses requires readers to use different reading strategies for constructing meaning from the text.

Hennings (2000) wrote:

Efferent meaning-making requires readers to personally disengage when reading, to obtain facts. Important in efferent reading response is what remains after the reading—the understanding acquired, the inferences made, the conclusions developed, the opinions generated. In contrast, aesthetic meaning-making is subjective and personal...What readers are “living through”—what they see,

hear, and feel—as they interact with the text is important. Rosenblatt calls this process of selecting ideas, sensations, feelings, and images and making something unique and personal with them “the literary evocation.” Readers who assume an aesthetic stance connect emotionally with the story or poem they are reading to become as one with it. (p. 131)

In both cases, the reader is actively engaged in making meaning from the text—the foundation for comprehension and understanding. Reading becomes a purposeful activity that is done for the sake of experience and also for the stimulation and exploration of ideas. Thus, response becomes the first step in critical text analysis (Daniels & Steineke, 2013; Probst, 2004). When teachers respect the power of reading to develop their students’ capacities as literate, thinking learners, secondary content-area teaching is enhanced, resulting in the deepening of students’ learning and their comprehension of texts.

Thinking and Making Meaning with Text

Frank Smith (2006) wrote: “To understand reading, children must become members of a group of written language users; *they must join the club of readers* (p. 113). He continued by explaining how children who read a lot tend to be very good readers, and, in the process of reading, learn many other things. For one, the range and depth of their comprehension increases, both for written and spoken language. They learn to think better because they have more to think about. Their knowledge and use of vocabulary increases dramatically and consistently. Writing and spelling abilities improve. Overall, fluent readers do better in all academic subjects (Smith, 2006).

Smith (1994) defined reading as “a creative and constructive activity having four distinctive and fundamental characteristics—it is *purposeful, selective, anticipatory*, and based on *comprehension*, all matters where the reader must clearly exercise control” (p. 3). A reader normally reads for a purpose, selecting and attending to what is relevant to that purpose. Purposeful readers anticipate what they will read and are rarely confused by the act of reading. From this perspective, understanding is the basis, not the consequence, of reading.

Additionally, Smith (1994) states when readers are engaged in the reading process, they use their knowledge about language and the world in general to push their thinking by making predictions and testing their hypotheses about the text. Readers actively participate in the reading process by constructing coherent, meaningful interpretation of text as they read (Tracey & Morrow, 2006).

Being a successful reader requires using appropriate reading strategies for the task at hand. After all, as Vacca et al. (2011) wrote: “The real value of reading lies in its uses” (p. 18). They continued:

Skilled readers must be able to decode or pronounce words quickly and accurately, read with fluency, activate vocabulary knowledge in relation to the language of the text, and put into play text comprehension strategies to understand what they are reading. (p. 19)

When skilled readers have difficulty comprehending what they are reading, they often become strategic in the way they approach challenging and difficult text by using comprehension strategies they have learned or developed. As Duke and Pearson (2002) explained, we know a great deal about what good readers do when they read: “Reading

comprehension research has a long and rich history...much work on the process of reading comprehension has been grounded in studies of good readers” (p. 205).

Beliefs about Reading in Secondary Content Areas

Content area teachers believe it is their responsibility to cover subject matter in a timely, accurate, and effective manner (Alvermann & Moore, 1991; Alvermann, Phelps, & Ridgeway, 2007; Moore, 1996). They see themselves as content experts with a passion for what they are teaching instead of focusing on how students learn. Donna Ogle, former president of the International Reading Association, stated: “It’s an unusual teacher who comes into secondary education wanting to teach students how to learn” (D’Arcangelo, 2002, p. 13).

Secondary content teachers tend to believe that by the time students enter middle and high school, they should already know how to be strategic readers and learners (Alvermann & Nealy, 2004; Alvermann et al., 2007). They erroneously assume that once children learn to read and write in the primary grades, they should be able to successfully use reading and writing to learn for the rest of their lives (Vacca, 2002).

Content area teachers generally believe textbooks are necessary for teaching and learning content, often at the exclusion of other types of texts. They tend to perceive the textbook as the cornerstone of curriculum and instruction in their content areas. However, the teacher’s perspective of education greatly influences how the textbook is used in the classroom, with transmission and construction anchoring the ends of a continuum. A belief in textbook-driven instruction usually relies on lecturing and other means of transmitting information when content coverage is the primary purpose of instruction (Alvermann et al., 2007; Vacca & Vacca, 2005; Wade & Moje, 2000).

Conversely, a belief that knowledge is constructed results in a teacher seeing the textbook as one source of information, providing multiple sources, and expecting students to construct their own meanings and understandings of conceptual content (Anders & Guzzetti, 2005).

The reality of content area reading instruction involves considerably more than covering the content within a predetermined time with the textbook as the primary, or single, classroom resource. Writers of practitioner texts for teachers (i.e., Allen, 2002; Beers, 2003; Tovani, 2000, 2004) have shown that secondary students need strategy instruction to help them develop as active, fluent, independent readers and learners. In describing adolescents, Alvermann et al. (2007) concluded: “Their overall sense of themselves as learners will depend to a large extent on how they see themselves as readers and what it means to be literate in a fast-changing world” (p. 11).

Reading Demands of Disciplinary Literacy

Learning in the academic disciplines involves learning the norms for accessing, producing, and communicating knowledge in each discipline, along with understanding the ways of literate thinking and doing that each discipline authorizes. These *disciplinary literacies* (Lee & Spratley, 2010; Moje, 2008a; Shanahan & Shanahan, 2008) involve the more sophisticated and specific kinds of reading and writing associated with each particular academic discipline.

Buehl (2009) suggested teachers should mentor students to read, write, and think in ways that characterize discrete academic disciplines. With instruction and guided practice, students will begin to develop personal disciplinary lenses for reading within various academic disciplines. Karen Wood (2012) wrote:

Language arts teachers want their student to become proficient readers and writers, to appreciate and understand quality works of literature, and to apply their literacy skills with all texts. Social studies teachers want their students to read and write like historians, to value primary sources of information, and to use this knowledge to understand the world around them and how we got here. Science teachers want their students to read and write like scientists, to understand how the world works, and to question things around them. Similarly, mathematics teacher want their students to read and write like mathematicians, develop skill in manipulating numerical data, and learn problem-solving skills applicable in the real world. (p. 49)

However, the high-level abilities and skills embedded in disciplinary literacies are not particularly easy for secondary students to learn. One reason is these abilities and skills tend not to have many parallels in oral language use. A second reason is they generally are applied to difficult texts. Lastly, secondary content area teachers tend not to explicitly teach the skills embedded in disciplinary literacies to their students. The reality of reading in the disciplines is that, even with teacher support, school texts can sometimes be beyond the reach of students (Shanahan & Shanahan, 2008; Wood, 2012).

Teachers who have deep understandings of their academic disciplines and the reading demands of different materials are the best teachers of critical reading and writing strategies (Draper, Broomhead, Jensen, & Siebert, 2010; Moore, Moore, Cunningham, & Cunningham, 2011). Students will not learn academic content if they are not fluent, active, independent readers of the texts within each academic discipline. After

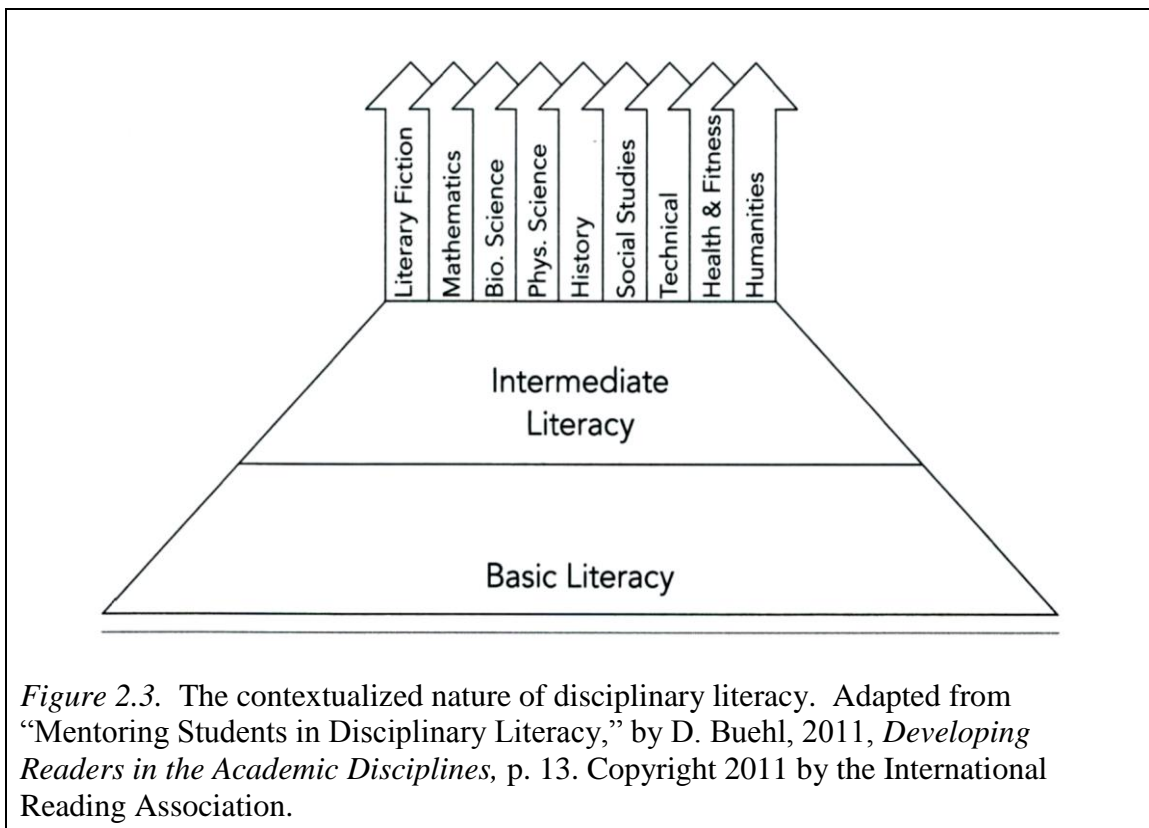
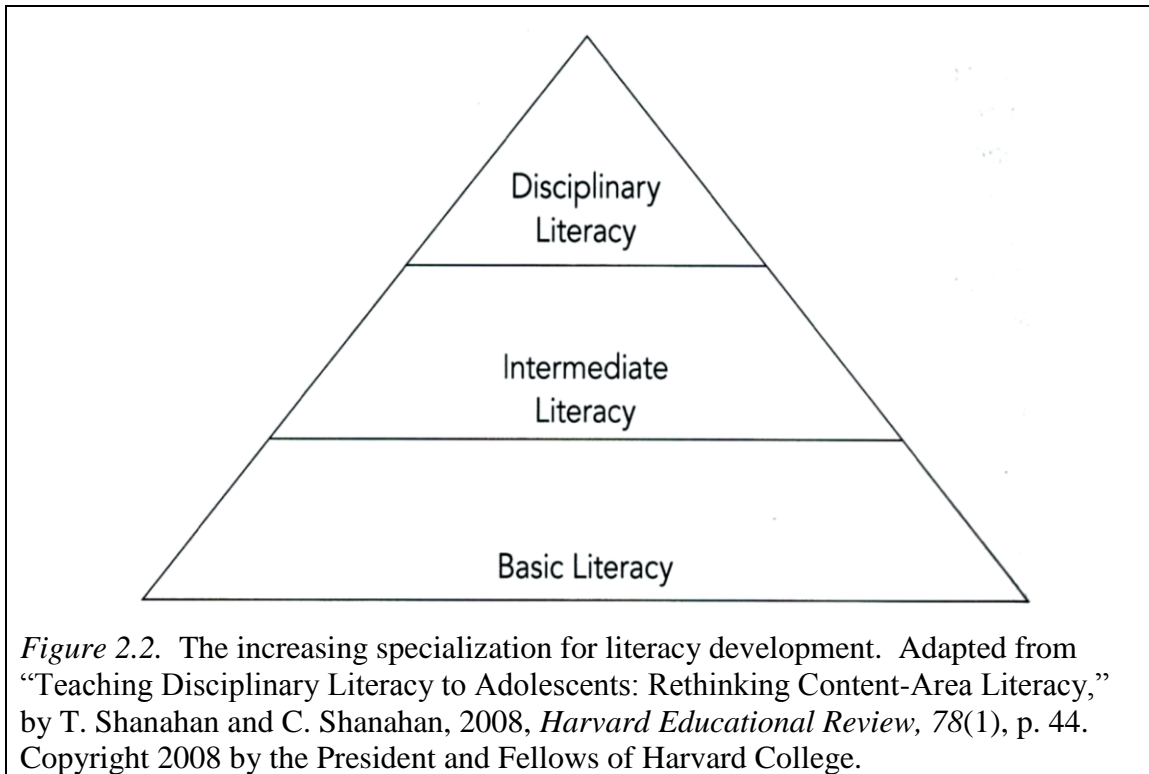
all, reading comprehension is fundamental to learning in the disciplines (Buehl, 2009; Draper & Siebert, 2010).

A Model of Disciplinary Literacy

Secondary students need to be mentored to read, write, and think in ways that characterized each discipline. Shanahan and Shanahan (2008) conceptualized a model of literacy instruction progressing in three phases (see Figure 2.2.). During the basic literacy phase, students in the primary grades (K-3) learn the foundation for reading and writing. The middle phase of instruction, intermediate literacy, is emphasized during the upper elementary grades (four-six). This is a multitasking phase of development as students improve their reading fluency, expand their vocabularies, and learn from more sophisticated text. Comprehension strategies become increasingly important.

Adolescents deemed to be “struggling readers” are generally readers continuing to develop their capacities in the intermediate phase. They need classroom support through effective instructional practices, such as differentiated instruction and scaffolded lessons. The third phase, disciplinary literacy, predominates in middle and high school.

Students must learn to apply generic comprehension strategies to accommodate the reading demands of a variety of disciplinary texts (see Figure 2.3.). Students must develop their own personal lens for reading within different academic disciplines and content areas (Buehl, 2011; Shanahan & Shanahan, 2008).



Variables Facing Disciplinary Readers

Reading and learning become increasingly specialized as adolescents move into the more compartmentalized studies of academic disciplines. Buehl (2011) described four major variables in disciplinary reading and learning (detailed below):

- Each disciplinary text exhibits characteristics (e.g., text relationships, richness of detail, text structure, writing style, vocabulary density, author purpose) inherent in complex texts.
- Each text represents a discrete academic discourse, which enhances text complexity.
- Adolescents have to be receptive to expending the necessary effort to meet the challenge of reading and learning from each of these texts, which is an identity issue.
- Adolescents must be sufficiently skilled to engage in the modes of thinking (e.g., connecting, questioning, visualizing, making inferences, determining importance, synthesizing, and monitoring comprehension) as essential reading comprehension processes. (p. 53)

In their report, *Reading in the Disciplines: The Challenges of Adolescent Literacy*, Lee and Spratley (2010) wrote: “The ability to comprehend written texts is not a static or fixed ability, but rather one involves a dynamic relationship between the demands of texts and the prior knowledge and goals of readers” (p. 3).

Reading in Mathematics. Typical studies of reading in mathematics have focused on the structure of the textbook and the application of generic reading strategies such as previewing and summarizing (Barton & Heidema, 2002; Barton, Heidema,

Jordan, 2002; Berger, 1989). While these strategies may help students better use the textbook, studies have shown they do not promote conceptual understanding of mathematics content (Schoenfeld, 1998). However, from their review of resources using literacy strategies in mathematics, Friedland, McMillen, and del Prado Hill (2011) concluded it is necessary for literacy and mathematics leaders to collaborate in order to bridge the gap between knowledge of literacy strategies and implementation of the strategies in mathematics instruction. They noted how mathematics teachers may use literacy strategies as “instructional tools employing reading, writing, speaking, and listening for facilitating, reinforcing, or formatively assessing students’ comprehension of discipline-specific materials” (p. 58). However, they also noted how mathematics teachers “may be using such strategies effectively to teach mathematics content, but not purposefully using them to promote mathematical literacy” (p. 58).

Mathematical reading requires a precision of meaning; all words, including function words, numbers, letters, and symbols, are critical for meaning. Each mark carries significant informational weight, and each symbol is understood according to a strict set of conventions. Mathematicians believe students should memorize precise mathematical definitions, leading to precise understanding of the mathematical meaning (Barton & Heidema, 2002; Barton, Heidema, & Jordan, 2002; Buehl, 2011; Shanahan & Shanahan, 2008).

For students to understand the terse, dense sentences in mathematics’ compacted prose, Shanahan and Shanahan (2008) found they must apply strategies such as close reading and rereading. Mathematics texts typically communicate mathematics principles in multiple modes, including writing, drawings, illustrations, graphs, and so on. Readers

have to be flexible thinkers in order to adjust to these different modes and construct meaning from each (Buehl, 2011; Moje, Stockdill, Kim, & Kim, 2011).

Reading in Science. Science texts present specialized challenges for readers. Lemke (2004) describes science texts as “hybrid in nature in that they consist of words and other forms of representations like mathematical equations, graphs, and diagrams” (Draper & Adair, 2010, p. 128). For students to comprehend science texts, they must also have understandings of both mathematical and visual literacies. It is this hybrid nature of science that requires readers to understand how to transform information from one form to another. Alternative representations of ideas in science are essential for a full understanding of the concepts. This results in a particular dependence in science curricula on a variety of visual displays and equipment that, in turn, become key texts and tools for content (Shanahan & Shanahan, 2008).

Another challenge for readers of science text is understanding the scientific registers in terms of technical vocabulary and syntax. Lee and Spratley (2010) define register as “a way of using language that is specific to particular situations” (p. 4). Science texts are identified by extensive vocabulary load and density of terminology. Much of the vocabulary has Greek or Latin roots, along with words having specialized scientific meanings that are different from everyday discourse. The syntax, or structure of the academic language used in science texts, is more difficult for students when compared with more informal language or narrative text. Academic language is characterized by having a formal tone, complex content, and impersonal stance (Buehl, 2011; Lee & Spratley, 2010). These scientific registers can be difficult for struggling or inexperienced readers.

Reading in History/Social Studies. History/social studies literacies focus on reading and analyzing various texts as they relate to the numerous subdisciplines (i.e., anthropology, economics, geography, history, political science, psychology, and sociology) within this domain. Historians contend one important literacy element for reading these texts is paying close attention to the author or source. Historians are very aware that the texts they usually are reading are interpretations of historical events and have to be judged based on credibility (Buehl, 2011).

Levstik (2008) found the majority of instructional time in history/social studies classes centers around the textbook. Primary documents are sometimes read, but non-print resources are often considered ancillary or supplementary (Shanahan & Shanahan, 2008). Both textbooks and primary source documents in history have a high level of reading difficulty due to both complex syntax, or language structure, and general vocabulary. Abstraction of thoughts are inherent in the syntax of historical content while historical vocabulary often includes words from other disciplines, words that are not current, or words/phrases that need to be understood metaphorically (Halliday & Martin, 1993; Lee & Spratley, 2010; Schleppegrell, 2004; Shanahan & Shanahan, 2008).

Reading in English Language Arts. Reading in English language arts class typically takes different forms. In one, students are not only allowed but also encouraged to construct multiple interpretations and understandings of texts based on their own life experiences (Rosenblatt, 1938, 1978, 2005). It is through this approach to reading literature that students develop empathetic reasoning (Lee & Spratley, 2010). Another reading approach focuses on text form and structure rather than the content. It is within the discipline of English language arts that individual thoughts of readers and writers and

the processes by which these thoughts can be most effectively understood, shaped, and expressed using devices and techniques specific to the discipline are emphasized (Wilson, 2011).

Effective English language arts instruction should include overt strategy instruction in comprehension strategies and writing processes, text choice to increase student motivation, and opportunities for students to engage in powerful and authentic ways with language in its written, spoken, and visual forms. Students need opportunities to think, ponder, and grow as readers and writers (Grierson & Nokes, 2010; Langer, 2001; Squire, 2003).

What We Know about Disciplinary Literacy

Disciplinary literacy calls for content area teachers to focus their teaching on the texts and literacies that best represent the disciplines (Draper & Siebert, 2010). Content instruction cannot be separated from literacy instruction. For students to demonstrate deep understandings of disciplinary content, teachers must overtly teach disciplinary literacy strategies that will, in turn, strengthen their conceptual understanding (Draper & Siebert, 2010; Keene, 2008). As Wilkinson and Son (2011) observed: “Strategies provide the tools to help students make sense of the content, and the content gives meaning and purpose to the strategies” (p. 367).

However, as Moje (2008) suggested: “Without careful attention to what it means to learn in the subject areas and what counts as knowledge in the disciplines that undergird those subjects, educators will continue to struggle to integrate literacy instruction and those areas” (p. 99). Teachers must come to understand and believe how theory, informed by research, guides practice. They must consider highly effective

generic literacy strategies as “instructional prototypes ... that illustrate how literacy practices can be embedded into disciplinary learning” (Buehl, 2011, p. 266).

Literacy in Disciplinary Discourse Communities

Teachers who believe in literacy as a social practice recognize the ways in which literacy is constructed in everyday practices. Barton and Hamilton (1998) explained:

Literacy is primarily something people do; it is an activity, located in the space between thought and text. Literacy does not reside in people’s heads as a set of skills to be learned, and it does not just reside on paper, captured as texts to be analyzed. Like all human activity, literacy is essentially social, and it is located in the interaction between people. (p. 3)

Understanding literacy as a social practice necessitates understanding the role language plays in literacy learning and use.

How does language help students comprehend and learn? As humans, we all use our personal experiences or what “we already have in our heads” (Smith, 1994, p. 7) to create cognitive structures. This remembrance of past experiences is the foundation of all new understanding of language and the world, shaping the way we look at both past and new experiences. We attempt to *comprehend* by fitting new experiences into our existing cognitive structures and to *learn* by altering our existing cognitive structures when experience does not make sense. It is by using language that we are able to learn as we actively work to make sense of our new experiences (Lindfors, 1991).

The social constructivist perspective on how children learn proposes that more-capable peers and adults mediate children’s learning by providing language and strategies for problem-solving (Gillies, 2007). In classroom interactions between teachers and

students, talking and writing play important roles in students' comprehension and learning (Lindfors, 1991; Wells, 1986). Teachers can foster this cognitive growth in students by providing opportunities for them to interact and talk with others where they learn to exchange ideas, model patterns of thinking and reasoning, and work together to solve problems. These opportunities enable students to learn new ways of thinking, talking, constructing new understandings, and negotiating meanings as a result of these interactions (Gillies, 2007; King, 2002).

When teachers use a collaborative approach with students and are willing to negotiate meanings during interactions, they give students confidence to explore and try out ideas without fear of being wrong. Learning involves taking risks; both errors and successes are parts of the process (Wells, 1986). By using language that challenges their understandings, confronts discrepancies in their thinking, and requires them to justify their reasons, teachers help students develop new understandings and learning (Gillies, 2005, 2007; Gillies & Boyle, 2006; King, 2002). Language becomes the means through which learning occurs, with language being "the essential condition of knowing, the process by which experience becomes knowledge" (Halliday, 1993, p. 94).

Because teacher educators are charged with equipping future teachers with the requisite pedagogical knowledge that will foster and enhance student learning, Lankshear and Knobel (2004) argue that educative practice must be transformed to reflect four key principles of learning: the principle of efficacious learning, the principle of integrated learning, the principle of productive appropriation and extension in learning, and the principle of critical learning. It is important to note that each principle operates in synchronicity with D/discourse practices in the disciplinary classrooms. Table 2.2

outlines each principle and provides a description along with implications for instructional practice.

Table 2.2

Principles of Learning for Underpinning Pedagogical Work

Principle	Description (from Lankshear and Knobel, 2004)	Implications for the role of the teacher (Larson and Marsh, 2005)
The principle of efficacious learning	Learning should be connected in meaningful ways to learners' social and cultural practices. Learning should be inseparable from Discourses (Gee, 1996).	Needs to be responsive to the discursive worlds of learners and provide meaningful opportunities for learning which integrate these worlds.
The principle of integrated learning	Integrated learning is situated inside a practice and relates to our identities. Learning is holistic and organic; it does not consist of learning 'chunks' is isolation from the Discourse as a whole.	Needs to understand the way in which Discourses are constructed and provide learning opportunities that are integrated.
The principle of productive appropriation and extension in learning	The process of learning should not involve conflict between social identities. Learning should provide opportunities for learners to transfer specific discursive practices into new spaces.	Needs to enable learners to bring their "funds of knowledge" (Moll et al., 1992) to the site of learning.
The principle of critical learning	Learners should experience different and competing Discourses and be able to navigate critically these contested spaces.	Needs to provide opportunities for learners to experience and respond critically to a range of discursive practices, identities, texts and so on.

Note. Adapted from "Four Principles of Learning" by C. Lankshear and C. Knobel, 2004, Paper presented at the Annual Meeting of the American Education Research Association, San Diego, CA, and "Implications for the Role of the Teacher" by J. Larson and J. Marsh, 2005, Making Literacy Real: Theories and Practices for Learning and Teaching, p. 75. Copyright 2005 by SAGE Publications.

Talk, Language, and Discourse in Content Classrooms

When literacy is viewed as a social practice, teachers understand the roles of talk, language, and discourse in content classrooms. Larson and Marsh (2005) define talk as "social action in which participants in an interaction co-construct meaning" (p. 11).

Collaborative learning engagements become the norm in classrooms with this orientation. Student engagement is encouraged as teachers and students work together in an ongoing, dialectical construction of knowledge.

Gee's (1999) idea of little 'd' and big 'D' D/discourse illustrates the distinction between talk and discourse. Discourse with a 'big D' represents various culturally organized ways of acting and being in the world; discourse with a 'little d' represents the use of language in enacting, reproducing, or transforming Discourse. For example, there exists a Discourse for each discipline which is mediated through the discourse of language and talk. Thus, literacy discourses become representatives of a group (discipline) that has "texts, practices, ways of knowing and being in common, collective purposes, and ways of socializing new members" (Larson & Marsh, 2005, p. 12).

The recent resurgence of interest in classroom discourse among educational researchers and policy-makers is focusing attention on patterns of teacher talk (Lefstein & Snell, 2012). The concept of D/discourse applies to content classrooms when considering language use in everyday classroom interactions and the consequences of this use on students' literacy learning. Teachers' language use is shaped by deeply ingrained habits, resulting in part from the hours they spent as students watching others' teaching practices (Lortie, 1975). Implementation of reform policies, such as the Common Core State Standards, is placing demands upon teachers to transform their classroom discourse, making conscious and informed choices during interactions with students. In their research on the role of talk in the classroom, Lefstein and Snell (2012) concluded that even though the way teachers and students talk during interactions in the classroom is critically important, the dominant pattern of classroom discourse is problematically

monologic so it should be replaced with more dialogic models to accelerate students' literacy development (Calkins et al., 2012).

Teacher talk dominates classroom interaction most of the time, with the teacher controlling topics and turn-taking, judging the acceptability of student responses, and policing inappropriate behavior. Students talk for shorter durations and, in most cases, only in response to teacher prompts. In a typical classroom, whole class discourse is structured in Initiation-Response-Evaluation (IRE) cycles: teachers *initiate* topics, primarily by asking predictable, closed questions that test students' recall of previously transmitted information; students *respond* with brief answers; and teachers *evaluate* students' responses, praising correct answers and/or censuring error (Cazden, 1986). This structure for whole class discourse has been widely criticized as detrimental to student independent thinking and learning—teachers and textbooks are positioned as the single legitimate sources of knowledge; teachers tend to move from topic to topic with little or no clear line of reasoning; and, to the degree that students do engage in more demanding cognitive activities, such as explaining concepts or relating ideas to one another, the bulk of the work is performed by the teacher (Lefstein & Snell, 2012).

An important consideration is the role teacher education plays in addressing the nature of classroom discourse. Wood (1995) concluded that discourse can provide a *verbal window* into a teacher's developing practice by documenting patterns of interactions between teacher and students as they negotiate their roles in the classroom. By studying preservice mathematics teachers, Blanton, Berenson, and Norwood (2001) found the nature of discourse in a prospective teacher's classroom should be addressed not only during the final internship semester(s) but also in earlier university courses and

settings. They also concluded that cultivating a practice which engages students in dialogic classroom interactions is critical to the efficacy of preservice teachers' future instructional practice.

Language and Discourse in Disciplines

How teachers organize activity and discourse in their classrooms has profound effects on how students come to know and learn a subject (Gutierrez, 1994; Lemke, 1990; Stodolsky, 1988). The teacher's ability to cultivate serious disciplinary thinking and learning in students rests on the nature of classroom discourse (Blanton et al., 2001; Conley, 2012; Daisey, 2010; Draper & Siebert, 2010).

Discourse in Mathematics. In a study of seventh-grade mathematics classrooms, students' learning behaviors largely mirrored the discourse modeled by and the expectations communicated by teachers (Webb, Nemer, Kersting, & Ing, 2004). Blanton et al. (2001) deemed the continued emphasis on classroom discourse as pivotal to current reforms in mathematics education because discourse informs not only an understanding of students' thinking about mathematics, but also how teachers think about teaching mathematics.

Discourse in Science. Sandoval, Daniszewski, Spillane, and Reiser's (1999) study of science teachers, including how they structured classroom discourse and how discourse patterns affected students' opportunities to learn, resulted in their conclusion that teachers' discourse strategies can reinforce a view of science as authoritative fact. This view can distance students from being active constructors of legitimate scientific knowledge. Mercer, Dawes, Wegerif, and Sams (2004) found that when students in science classes were taught to engage critically and constructively with each other's

ideas, challenge and counter-challenge proposals, and discuss alternative propositions before reaching agreement, they made greater gains in measures of individual reasoning than students who did not have such teaching.

Discourse in History. Through her analysis of history textbooks, Coffin (2002) found teachers must teach students thorough discourse in history classes to both deconstruct and construct the values and judgments that are an integral part of history's discursive practices. Students in history classes need to have the ability to recognize value judgments and the ways in which they, as readers, are positioned by a text. It is only then that a student can actively choose to be a resistant or a compliant reader. Susan De La Paz (2005) conducted a study of eighth-graders' historical thinking and writing. She concluded that explicit strategy instruction during discourse about historical reasoning and writing arguments helped the students write longer, more persuasive, and more historically correct essays than the essays written by students who did not participate in the discourse.

Discourse in English Language Arts. In 2006, Nystrand published a review of 150 years of research on the effects of discourse on reading comprehension. He reported in his findings that recent sociocultural and dialogic research supports claims that classroom discourse, including small-group and whole-class discussion, works as an epistemic environment (versus script) for literacy development. Stieglitz and Oehlkers (1989) studied classroom teachers as they engaged their students in discourse about reading. Their findings showed that teachers' verbal behaviors can be modified. Teachers can easily move away from a traditional method in which they talk to students,

ask them about their personal experiences, and pose many literal questions, to an approach which encourages students to establish and test hypotheses about their reading.

Teachers' Beliefs and Attitudes

Even though beliefs are highly influential on the decisions secondary content-area teachers make as they interact with their adolescent students, teachers actually may not be aware of the influence of their underlying beliefs. Often teachers make pedagogical decisions from beliefs based on ways they were taught when they were in school. Perhaps they have beliefs about what it means to be a teacher based on their admiration for a particular teacher from their past. Maybe they resist accepting a new pedagogical idea or practice because it does not make sense or fit with the way they were taught in their college teacher-preparation courses.

Educational researchers (e.g., Deshler & Schumaker, 1993; Klinger, Vaughn, Hughes, & Arguelles, 1999; Klingner, Vaughn, Arguelles, Huges, & Leftwich, 2004; Pressley & El-Dinary, 1997) have found teachers often resist teaching reading comprehension strategies due to conflicts with their own beliefs about reading. They may believe strategy instruction takes too much class time, or students will not be able to perform the strategies (Pressley & Wharton-McDonald, 2006). Harste and Burke (1977) reported that analyzing teachers' behavior in terms of their beliefs and assumptions was more conclusive and powerful than looking at their behavior in terms of the pedagogical approaches they reported using. In further research, Harste, Woodward, and Burke (1984) found when teachers changed their instructional approaches but did not change their underlying beliefs, their classroom practices were unaffected.

In 1938, John Dewey wrote about experience and its relationship to teaching and learning: “Every experience affects for better or worse the attitudes which help decide the quality of further experiences” (p. 37). Change in practice is action-oriented and comes from deep reflection about how new understandings and experiences can lead to improved practice (Hole & McEntee, 1999). Reflection enables teachers to gain a deeper knowledge and understanding of how theory and research translate into classroom learning events as they examine their beliefs about teaching and learning (Robb, 2000; Shulman, 1987). Anders and Guizzetti (2005) summarized Dewey’s (1938) call for teachers to be reflective when they wrote:

To advance our capacities as teachers, we must turn ideas back onto our belief systems, to examine root beliefs that affect our decisions, and if need be, to employ practices of dialogue and inquiry to challenge or to elaborate on those beliefs. (p. 56)

Dewey (1934) believed teachers have the power to possibly shift and/or change their beliefs through inquiry and reflection. As teachers engage in the ephemeral *reflection in action* (Schon, 1992, p. 125) during their interactions with students, they think as competent practitioners by framing their teaching practices within their beliefs. However, Dewey (1934) acknowledged that change does not come easily when he wrote: “It requires troublesome work to undertake the alteration of old beliefs” (p. 30).

Sociocultural Perspectives of Teachers’ Beliefs and Attitudes

Schools are becoming more diverse every day. This has serious implications for teaching, learning, and the way teachers are prepared to meet these challenges. Carter (1993) argued that teaching decisions are always framed within the context of a teacher’s

life history. This is because “teachers don’t just appear out of thin air. They are products—as well as active agents—of the worlds from which they came” (Greenleaf, Jimenez, & Roller, 2002, p. 487).

All teachers bring their beliefs and attitudes about students, teaching, and learning into the classroom with them. Goodenough (1963) explained that beliefs are “propositions that are held as true, and are accepted as guides for assessing the future, are cited in support of decisions, or are referred to in passing judgment on the behavior of others” (p. 151). Today’s preservice and inservice teachers must carefully examine their beliefs and attitudes about teaching and student learning as more education programs today are reflecting and promoting a sociocultural perspective in language and literacy. These perspectives are rooted in: an understanding of culture; a view of learning as socially constructed and mutually negotiated; an understanding of how students from diverse segments of society experience schooling; and a commitment to social justice (Nieto, 2002).

Sociocultural Concepts and Teachers’ Beliefs

Sociocultural perspectives are first and foremost based on the assumption that social relationships and political realities are at the heart of teaching and learning. Student learning emerges from the social, cultural, and political spaces in which it takes place, and through the interactions and relations that occur between learners and teachers (Nieto, 2002). Five interrelated concepts—*agency/co-constructed learning*; *experience*; *identity/hybridity*; *context/situatedness/positionality*; and *community*—undergird Nieto’s sociocultural perspective.

Agency. In their study of teachers' agency beliefs, Malberg and Hagger (2009) reported teachers who believed outcomes were contingent on their own actions exhibited a sense of control, competence, or agency. They also reported that agentic teachers had higher achieving and more motivated students, had greater patience with low-achieving students, and were able to create a learning environment in which learners thrived both academically and socially.

However, in many secondary classrooms, what passes for learning continues to be transmission of information rather than teacher agency. What Paulo Freire (2000) termed *banking education*—the simple depositing of knowledge into students who are thought to be empty receptacles—is the most extreme manifestation of the transmission model of learning. Rejecting this concept, Freire (1985) stated, “To study is not to consume ideas, but to create and re-create them” (p. 4). *Teachers* who lack agency do not believe students have the innate ability to create meaningful and important knowledge, while *students* who lack agency do not believe in themselves as knowledge-creators.

Nieto (2002), studying secondary students' beliefs about their teachers, found most of the students' comments were about their teachers' pedagogy. Students were especially critical of teachers who only provided passive learning environments. Giving students opportunities to reach their potentials for learning and develop personal agency means teachers must believe learning is not simply a question of transmitting knowledge, but rather of working side-by-side with students to reflect, theorize, and co-construct knowledge and learning.

Experience. All students come to school as thinkers and learners. However, teachers may not accept or value the kinds of knowledge and experiences some students

have from their out-of-school lives or previous schooling. Bourdieu and Passeron (1990) referred to knowledge and experiences that have value in a certain culture or society as *cultural capital*. Teachers' beliefs about what experiences are valuable for academic success affect the decisions they make in the classroom. Teachers' attitudes and subsequent behaviors about the cultural capital students bring to school impact both the classroom environment and student learning. Teachers may deem students' skills and knowledge as inappropriate for the school setting (Nieto, 2002). Teachers must not make the mistake of dismissing opportunities to build on students' life experiences simply based on their own beliefs.

Identity/Hybridity. Gee (2000) described identity as being “a certain ‘kind of person’” (p. 99). Everyone displays multiple identities, formed through cultural contexts, which influence beliefs, decisions, and actions. According to Nieto (2002), “...culture does not exist in a vacuum but rather is situated in particular historical, social, political, and economic conditions” (p. 11). For students to engage in meaningful learning, teachers' pedagogical practices must affirm students' identities and respect their personal knowledge as strengths (Nieto, 1999; Sturtevant et al., 2006). Teachers' beliefs play a significant role in the formation of students' academic identities. Because these identities are fluid rather than static, the academic context determined by teachers' beliefs and decisions shapes students' conceptions of themselves as readers, writers, thinkers, and learners (McCarthy & Moje, 2002).

Context/Situatedness/Positionality. Teachers' beliefs about ethnicity, language, social class, and gender can make the difference in whether and to what extent students learn. Teachers routinely make curricular decisions about what counts as important

knowledge or knowing in their disciplines and content areas. Sociocultural theory recognizes the questions of power at the very heart of learning (Nieto, 2002). With current educational reform, teachers are being called upon to define what it means to teach for democracy to ensure that all students will be college or career ready when they graduate from high school. Calkins et al. (2012) concluded:

The old mission for America’s schools—providing universal access to basic education and then providing a small elite with access to university education—may have fit the world of yesterday, where most jobs required low literacy skills, but children who leave school today without strong literacy skills will not find a job...Instead of continuing to provide the vast majority of students with a skill-and-drill education, the United States needs to provide all students with a thinking curriculum. (p. 9)

Community. Believing the tenets of socioculturalism means it is not possible to separate learning from the context in which it takes place, nor from an understanding of how culture and society influence and are influenced by learning (Nieto, 2002). Teachers who create sociocultural learning communities within classrooms help students maximize their learning potentials by providing them with opportunities to collaborate with peers. According to Nieto (2002), “In sociocultural theory, learning and achievement are not merely cognitive process, but complex issues that need to be understood in the development of community” (p. 18). It is teachers’ underlying beliefs about teaching and learning that determine whether or not communities of learners are created in their classrooms.

This We Believe

As Bob Dylan (1963) wrote, “The times they are a-changin.” With education reform sweeping the United States, all teachers are being called to examine their beliefs and attitudes about teaching and learning. Reading expectations written in the Common Core State Standards require all students to engage in deep comprehension and higher-level thinking.

One way for teachers to help middle level students in all disciplines and content areas attain this goal is to practice the tenets outlined in *This We Believe: Keys to Educating Young Adolescents* (2010), a position paper of the Association for Middle Level Education (AMLE; formerly the National Middle School Association, NMSA). With its overarching framework of four essential attributes that reflect a sociocultural perspective, this paper calls for an education for young adolescents that is developmentally responsive, challenging, empowering, and equitable—four attributes that “might be called inherent characteristics and have always been identified with the middle school concept” (AMLE, 2013, p. 4). The attributes are described as:

- Developmentally responsive - Using the distinctive nature of young adolescents as the foundation upon which all decisions about school organization, policies, curriculum, instruction, and assessment are made.
- Challenging - Ensuring that every student learns and every member of the learning community is held to high expectations.
- Empowering - Providing all students with the knowledge and skills they need to take responsibility for their lives, to address life's challenges, to function successfully at all levels of society, and to be creators of knowledge.

- Equitable - Advocating for and ensuring every student's right to learn and providing appropriately challenging and relevant learning opportunities for every student. (NMSA, 2010)

Reaching higher levels of student achievement and overall development depends on what teachers believe about reading, disciplinary literacy, students, and learning.

Conclusion

This chapter provides a discussion of the theoretical framework that considers the role teachers' beliefs about sociocultural theory plays in teaching and learning in secondary disciplinary and content area classrooms. Both preservice and inservice teachers' beliefs determine the behaviors they exhibit and the decisions they make in the classroom. Teachers who believe learning cannot be separated from its social context provide collaborative and cooperative engagements for students. They believe learning can be maximized when students work alongside more capable others to reach their potentials. They work to create affective classroom conditions that optimize student learning. Teaching and learning are reciprocal processes in a sociocultural-based classroom.

Teachers with sociocultural beliefs use language to facilitate active learning as students work together to create and share their ideas and hypotheses. The classroom discourse cultivates higher levels of thinking and learning as students explore what it means to read, write, think, speak, view, and act from an insider's perspective in each discipline or content area.

Generally, secondary teachers have strong beliefs and attitudes about the role of reading in the classroom. They may even exhibit resistant behaviors towards

implementing reading instruction within their content area practices. However, a sociocultural framework situates reading as a tool that students use in a meaning-making process to construct, clarify, and extend meaning in any given discipline. For adolescent learners, reading is the transaction between themselves and texts, resulting in the creation of understanding and knowledge.

As teachers develop as reflective practitioners, they begin to change or alter previous beliefs they make have that do not fit within a sociocultural perspective of students, teaching, and learning. The social relationships and political realities of teaching and learning take on new dimensions. As educational reform is implemented across the United States, teachers must ensure that all students develop as independent thinkers and learners. Today's adolescents must have opportunities to learn how to use literacy and learning strategies flexibly and strategically while they are *in school* as preparation for their future lives *outside school*.

Chapter Three: METHODOLOGY – CONTEXT, DATA COLLECTION, AND ANALYSIS

Qualitative researchers engage in methods “generally supported by the interpretivist paradigm, which portrays a world in which reality is socially constructed, complex, and everchanging” (Glesne & Peshkin, 1992, p. 6). Shulman (1986) refers to this interpretive paradigm of research on teaching as studies of “classroom ecology,” drawing from anthropology, sociology, and linguistics, along with the traditions of qualitative, interpretive research (Cazden, 1986; Erickson, 1986; Evertson & Green, 1986). Cochran-Smith and Lytle (1993) stated:

Research from these perspectives presumes that teaching is a highly complex, content-specific, interactive activity in which differences across classrooms, schools, and communities are critically important. Interpretive research provides detailed, descriptive accounts of customary school and classroom events that shed light on their meanings for the participants involved. (p. 6)

My curiosity about the synergy between educational beliefs and instructional practices across core disciplines led to my desire to study the effects of a content-area literacy course on the developing beliefs and predicted future teaching practices of preservice middle level teachers. Even though I served as the instructor of the course, I did not enter the university classroom with the idea of didactically teaching the preservice teachers what I thought they should believe if they wanted to become effective teachers. Instead, I used a case study design to understand the way their existing or changing

beliefs about reading and learning may have influenced their predicted instructional practices across disciplines within the context of the required content-area literacy course.

Research Paradigm

Suter (1998) reported that educational researchers believed it was necessary to increase teachers' knowledge of the art and science of teaching and the process of learning to improve the quality of education. As an educational practitioner and researcher, I agree that in order for teachers to effectively increase student learning, all teachers, both preservice and inservice, need strong pedagogical foundations for their instructional practices in addition to having well-constructed and defined beliefs about how students think and learn. To achieve this goal, teacher educators must pay careful attention to the university classroom context in which preservice teachers develop their understandings of teaching and learning by providing them with opportunities to examine educational theories and practices in relation to their beliefs and experiences. Indeed, preservice teachers need to be provided with ample time for engaging in dialogue, reflection, and inquiry about teaching and learning within and across disciplines and content areas (Condon, Clyde, Kyle & Hovda, 1993; Tatto, 1998).

At the heart of qualitative research is a desire to understand the meaning behind how different people make sense of the world and the experiences they have in social situations (Bogdan & Biklen, 1998; Eisner, 1998; Merriam, 2009). As a content literacy teacher, teacher educator, and researcher, I was drawn to a study of preservice teachers and their beliefs, theoretical frameworks, and developing teaching practices for both content and disciplinary literacies.

For the purposes of this study, I turned to Vacca et al. (2011) who defined the construct of content literacy as “the ability to use reading, writing, talking, listening, and viewing to learn subject matter in a given discipline. *Content literacy* involves the use of research-based cognitive learning strategies designed to support reading, writing, thinking, and learning with text” (p. 13). Additionally, I looked at recent research into the construct of *disciplinary literacy* that necessitates reconceptualizing reading and writing as specialized, contextually dependent practices that require students to think and learn with text while developing deep understandings of discipline-based concepts and ideas (Draper et al., 2010; Gee, 2000; Lee & Spratley, 2010; Moje, 2008; Shanahan & Shanahan, 2008; Vacca et al., 2011). Because literacy encompasses many language processes, I specifically looked within content and disciplinary literacy practices at preservice teachers’ beliefs about the role of reading as a meaning-making process and the instruction of reading strategies across disciplines and content areas.

My desire to look closely at the beliefs and attitudes of preservice teachers, to *see* their learning as it developed, justified a qualitative inquiry for my research. One of the characteristics of qualitative work, as noted by Hatch (2002), is the prominence of the perspectives or voices of the participants. This characteristic connected with my study as I sought to understand the evolving beliefs of these preservice teachers from the voices and perspectives they shared through their writing and classroom engagements. The focus of my study was not just *about* these preservice teachers, but rather what I learned *from* them about the effects of the content literacy course on their beliefs and predicted instructional practices.

The methodology of this research was situated in case study, defined by Yin (1994) as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (p. 13). Merriam (1988) further defined four characteristics of case study as:

- *particularistic* as the study centers on a particular situation, event, phenomenon, or person;
- *descriptive* as the researcher gathers rich description of the object of study;
- *heuristic* as the study enriches the reader’s understanding; and
- *inductive* as the data drive the understandings that emerge from the study.

As a descriptive case study in education presents a detailed account of the phenomenon under study, I did not conduct this research to prove or disprove any particular view about the role of a required content-area literacy course on the beliefs and predicted instructional practices of preservice teachers. My primary intent was to provide readers with a glimpse into the world and experiences of this case group as they examined any self-generated changes that may have occurred in their beliefs about reading, learning, and predicted practices (Eisner, 1998; Merriam, 2009). As Stake (1981) wrote, “Insights into how things get to be the way they are can be expected to result from case studies” (p. 47). This study explored how middle level preservice teachers’ beliefs about teaching and learning *get to be the way they are*.

The Unit of Analysis

The unit of analysis for this case study consisted of four preservice teachers enrolled in *EDML 470: Reading and Writing across the Curriculum*, a required content

literacy course in a university middle level education program. Each member of the case group represented one of the four core disciplines (i.e., English language arts, history/social studies, science, and mathematics). To support the exploration of ways in which beliefs may influence predicted practices, I purposefully chose these four students to represent one of their two major areas of academic concentration. I used pseudonyms to refer to the preservice teachers in the group (Lauren, Megan, Josh, and Kayla) to ensure their anonymity while referring to myself by my first name (Janie). I also used pseudonyms while referring to other students in the class during their interactions with the members of the case group.

My decision to use four students as collective (or multiple) case study was intentional. In this methodology, the researcher investigates numerous cases to study a phenomenon. The redundancy of cases is purposeful as the researcher seeks to build a stronger understanding and a more compelling argument for the significance of the work through the use of multiple cases (Barone, 2004; Stake, 1995; Yin, 2003). Some researchers argue that the results of multiple case studies are more compelling than single cases and contribute to literal replication through prediction of similar results (Barone, 2004; Miles & Huberman, 1994).

My goal for this research was to add to the knowledge base of what is known about effective teaching by contributing “both conceptual frameworks and important information about some of the central domains of the knowledge base” (Cochran-Smith & Lytle, 1993, p. 60). Currently, there is very little information of how university teacher educators can better prepare preservice teachers for disciplinary literacy practice (Conley, 2012). By situating this study within the context of the program-required middle level

content area literacy course, I aimed to learn as much as I could by understanding what this case was and what it could do for helping preservice teachers better understand effective pedagogical practices. My positionality as the course instructor allowed me to observe the participants' behaviors by having opportunities to collaborate with them and participate in their activities, noted by Creswell (2003) as one of the key elements of collecting data in a case study.

Several contextual features bound this case study. These factors included the particular undergraduate students enrolled in the class and, more specifically, those four students selected for the case; students' pre-existing beliefs about reading, teaching, and learning; and the pedagogical framework and structures that shaped my instruction of content area and disciplinary literacy. Due to the contextual boundaries, the case group was just one case of preservice teachers in the content literacy class and was not intended to represent the entire range of areas of academic concentrations, beliefs, and predicted instructional practices as a whole (Dyson & Genishi, 2005). However, because the students I selected provided a purposeful sampling of the class as a whole, my study of this one case group did serve to show the possibilities for beliefs about reading, teaching, and learning influencing predicted practices within the larger context of this class.

Dyson and Genishi (2005) observed that educational settings are filled with human experiences and stories, allowing researchers to "make decisions about how to angle their vision on these places, depending on the interplay between their own interests and the grounded particularities of the site" (p. 12). I entered this study to become a part of the research setting in order to describe my vision of the preservice teachers' experiences as they emerged (Eisner, 1998; Glesne, 2006; Merriam, 2009). Being in this

context for almost five months allowed me to get to know the class of preservice teachers. Because of this, I was able to focus on the language they used to express their beliefs about reading, teaching, and learning, and how their thinking about educational beliefs translated into predicted instructional practices (Wells, 2001).

The Research Setting

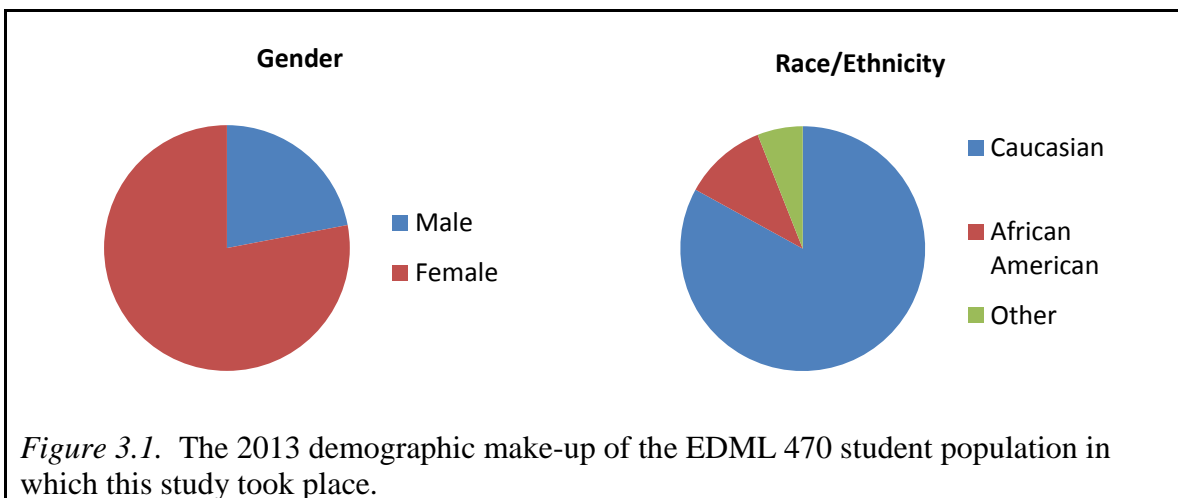
When I thought about a research site for exploring the roles of beliefs and practices in middle level teacher education, I turned to my own university classroom. Beginning in 2007 and continuing through my research in 2013, I taught the required middle level content area literacy course to university juniors during the fall semester. My intention in this research was to bring together two fields of study that have not had much intellectual contact: teacher education and disciplinary literacy (Bean & Harper, 2004). I consequently sought and received approval from my academic advisors for this site selection.

The study site is located in a southeastern public university located in the geographical center of the state. It is the largest university in the state, with an enrollment of over 30,000 students on its main campus. The School of Education has an enrollment of over 1,200 undergraduate students. Housed within the Department of Instruction and Teacher Education, the Middle Level Education program is accredited by the Association for Middle Level Education (AMLE) and designed for undergraduate students interested in careers as teachers in grades five – eight. In addition to the major subject area of Middle Level Education, students are required to choose two different content areas of specialization: English, social studies, science, or mathematics. Successful completion of all degree and certification requirements result in a student

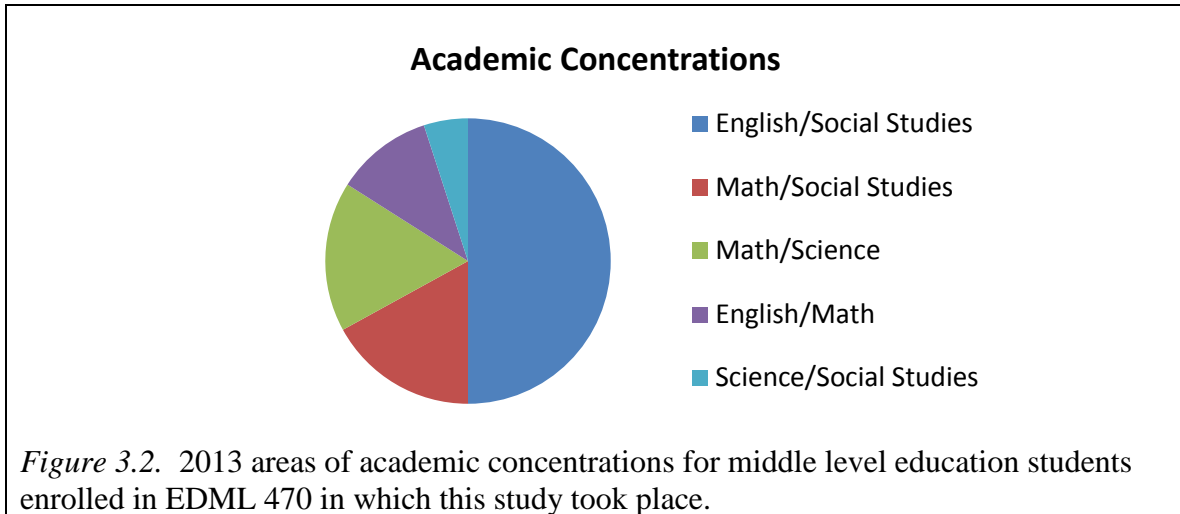
earning a Bachelor of Arts or Bachelor of Science degree and recommendation for teacher certification with the State Department of Education.

The State Department of Education requires all undergraduate students enrolled in secondary teacher education programs across the state to complete a course in teaching reading and writing in the content area(s) they plan to teach. Without successful completion of this course, students are not recommended for initial teacher certification.

The study took place in the required middle level content area literacy course, *EDML 470: Reading and Writing across the Curriculum*, offered during the fall semester. The eighteen students enrolled in the course were beginning their junior year and were seeking admittance into the Middle Level Professional Program in order to continue their program of studies. For admission into the professional program, middle level teacher candidates must apply, meet the minimum requirements for admission, and be officially accepted, with the process typically occurring during the fall semester of the junior year. Of the students enrolled in the course, approximately 78% were female and 22% were male; 83% were White, 11% were African American, and 6% were Other (see Figure 3.1.).



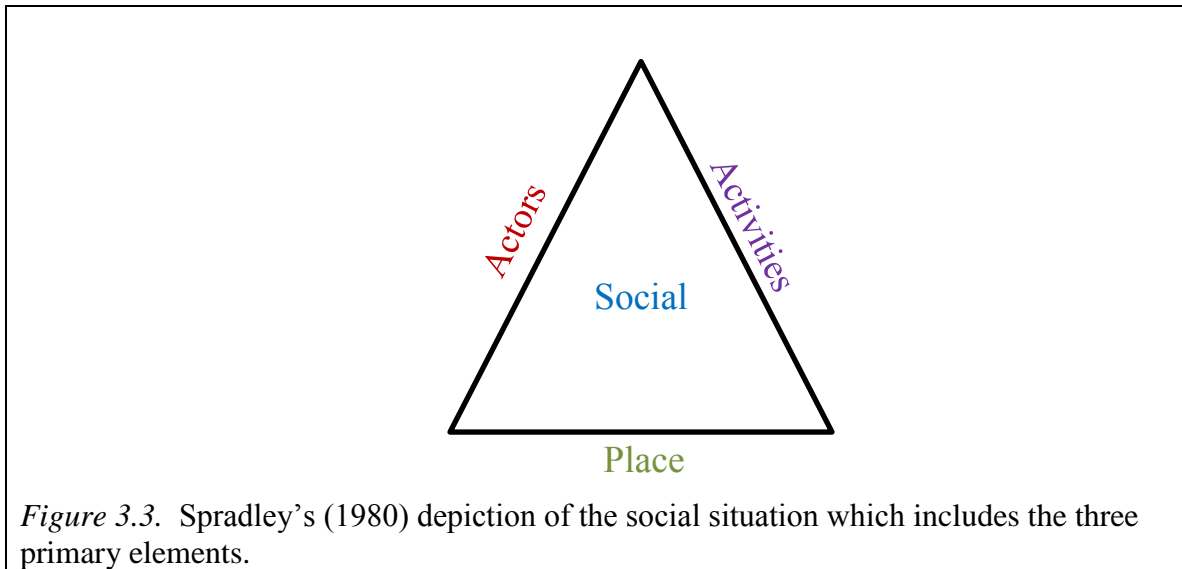
Of the students' content areas of specialization, approximately 50% were English/social studies, 17% were math/social studies, 17% were math/science, 11% were English/math, and 5% were science/social studies (see Figure 3.2.).



Researcher's Role

As instructor of the university course, I learned firsthand from these preservice teachers about their beliefs and predicted practices through our interactions and my observations. Spradley (1980) concluded that all participant observation takes place in social situations identified by three primary elements: a place, actors, and activities. In doing participant observation, I located myself within the context of the classroom setting and became involved with the preservice teachers by observing and participating in a variety of literacy activities (see Figure 3.3.).

Additionally, Atkinson and Hammersley (1983) argued that all social research is a form of participant observation because the social world cannot be studied without becoming a part of it.



I studied the phenomenon of the influence of beliefs on literacy instructional practices of preservice middle level teachers as I sought to function as an active participant (reader, writer, and teacher) in the workshop framework (Atwell, 1998; Robb, 2000, Ray, 2001) I established for the context of the course. Because the students were not accustomed to this framework in which knowledge is co-constructed by learner and teacher through predictable classroom structures, they were initially wary of my position as participant observer. However, I knew that having firsthand experience with these preservice teachers would allow me to be open, discovery-oriented, and inductive in my approach to the study (Patton, 1990). Even though it was impossible for me to experience the context of the class as a student, I was able to develop the perspective of an insider by taking part in the activities of the workshop (reading, writing, collaborating, sharing, and teaching). As the students became more comfortable with the workshop framework of the context, I gained full entrée as participant observer.

Marshall and Rossman (2006) stated that the use of participant observation “demands firsthand involvement in the social world ... permitting the researcher to hear,

to see, to begin to experience reality as the participants do” (p. 100). In further describing participant observation as a data collection strategy, Patton (1990) observed:

In participant observation the researcher shares as intimately as possible in the life and activities of the setting under study. The purpose of such participation is to develop an insider’s view of what is happening. This means that the evaluator not only sees what is happening but feels what it is like to be a part of the setting. (p. 207)

Even though my insider experiences allowed me to become a participant in the context, I remained mindful of consciously observing and recording the experiences of the students, particularly the case group. I also recognized one challenge of participant observation as a data collection strategy was understanding the context as an insider while describing the context for outsiders (Patton, 1990; Spradley, 1980). However, many researchers have argued that having such an insider perspective is invaluable in producing an “accurate” portrayal of a case study phenomenon (Yin, 2003).

One important consideration for me as a participant observer was using my own class as the context for the study. Hatch (2002) advised graduate students to use extreme caution when studying the college students they taught. Referring to these as “backyard” studies, he wrote, “...students you have taught or are supervising will respond to you and frame their actions around you in particular ways because of your role as university instructor” (p. 47). I constantly monitored my own positionality within the context of the study to maintain the credibility of the research.

Data Collection

Qualitative inquiry allows the researcher to draw intentionally on a variety of methods for gathering and interpreting data needed to gain an understanding of the phenomenon or contribute different perspectives on the issue. This characteristic of qualitative inquiry brings a personal dimension into the work by allowing the researcher to record objectively what is being observed while simultaneously examining the meaning of the observation and possibly redirecting the data collection (Eisner, 1998; Glesne & Peshkin, 1992; Hatch, 2002; Yin, 2003).

Stake (1995) observed, “We recognize that case study is subjective, relying heavily on our previous experience and our sense of worth of things. We try to let the reader know something of the personal experience of gathering the data” (p. 134). My interactions with the students in the course provided many opportunities for me to have *the personal experience of gathering the data*.

As Eisner (1998) wrote, “One needs to put together a constellation of bits and pieces of evidence that substantiate the conclusions” (p. 55). Using a variety of methods for collecting these *bits and pieces* allowed me to explore, analyze, and interpret the students’ changing realities and beliefs of reading, teaching, and learning.

Multiple forms of data served to clarify these realities of the case members’ experiences within the context of the course. In this study, the methods for systematic data collection included field notes, the collection of artifacts and documents, and interviews with the students (Hatch, 2002). Primary sources from these methods include:

- Field notes
- Researcher Journal and Memos

- Audio recordings and transcriptions of:
 - Interviews of individual students
 - Group sessions between members of the case group and their peers
 - Group sessions which included the case group, their peers, and me
- Written documents and artifacts from members of the case group and their peers
- Log of weekly lessons planned and implemented during the course

Table 3.1 matches the research questions with their corresponding data sources.

As I collected the data, I organized it in individual folders, divided by week.

Table 3.1

Rationale for Data Collection

Research Question	Data Collected
1. How do preservice middle level teachers enrolled in a required content area literacy course initially describe their past reading experiences and express their beliefs and attitudes about reading?	<ul style="list-style-type: none"> • Questionnaires and written reflections from the case group members and their peers • Audiorecordings and transcripts of conversations with case group members and their peers • Written documents from case group members and their peers • Artifacts from case group members and their peers • Field notes • Excerpts from research journal • Researcher memos
2. What are the effects of a required content area literacy course foregrounded in disciplinary literacy on preservice middle level teachers' beliefs and attitudes about reading and literacy strategies instruction in content area classes?	<ul style="list-style-type: none"> • Field notes • Audiorecordings and transcriptions of on-going and concluding interviews and conversations with case group members and their peers • Written documents from case group members and their peers • Artifacts from case group members and their peers • Log of lessons implemented throughout the course • Excerpts from researcher journal • Researcher memos
3. How do middle level preservice teachers' beliefs and attitudes about reading and disciplinary literacy affect their predictions of how they will integrate reading and literacy strategies instruction into their future practices?	<ul style="list-style-type: none"> • Field notes • Audiorecordings and transcriptions of concluding interviews with case group members and their peers • Written documents from case group members and their peers • Case group members' concluding questionnaires and written reflections • Excerpts from researcher journal • Researcher memos

Field Notes

We all continuously observe people, events, and interactions around us. However, researchers observe participants in research settings by systematically and consciously recording in a field notebook the many details of situations and analyzing those details for meaning. Thus, the field notebook becomes the primary recording tool for the qualitative researcher (Glesne & Peshkin, 1992; Patton, 1990; Spradley, 1980). Describing the field notebook, Glesne & Peshkin (1992) wrote, “It becomes filled with descriptions of people, places, events, activities, and conversations; and it becomes a place for ideas, reflections, hunches, and notes about patterns that seem to be emerging” (p. 45).

In this study, the field notebook became the place I first recorded condensed notes of the events that occurred during the weekly class meetings. I included students’ responses to the literacy strategies and resources used during instruction, bits of classroom discourse, and observations of the students engaging in literacy work. Because I was a participant in many of these events and could not fully record my observations in my notebook during the event, it became necessary for me to maintain mental notes that I recorded in the notebook as soon as possible or to use post-it notes with brief jottings that I could adhere to the page. These notes helped me remember thoughts or descriptions that I later expanded. To record explicit observations of the case group members and their peers during the context of the course, field notes focused on:

- student response to assigned readings,
- questions posed before, during, and after instruction,

- interactions between and among students in cooperative and collaborative engagements,
- student responses that highlighted personal beliefs and/or new learning,
- student application of new learning to predicted instructional practice, and/or
- student language that reflected on beliefs about reading and reading instruction, teaching, and learning.

At the conclusion of each class, I expanded the condensed version of the field notes. This allowed me to fill in details and recall things I did not record on the spot. I chose to use a notebook designed specifically as a note-taking system. I took notes on the lined-side of each page, using the unlined left side for expanding and reflecting upon my observation notes. I used the bottom margin for listing important ideas about my observations. Figure 3.4. shows an example of my field notes from the first class meeting on August 22, 2013.

During this class, I taught a lesson on reading and writing a biographical sketch. The purpose for this engagement was to create a writing-to-learn opportunity in which each student would meet a new classmate, have a cooperative conversation to learn new and interesting information about each other, and craft a short, biographical sketch as a way to introduce each other to the whole group.

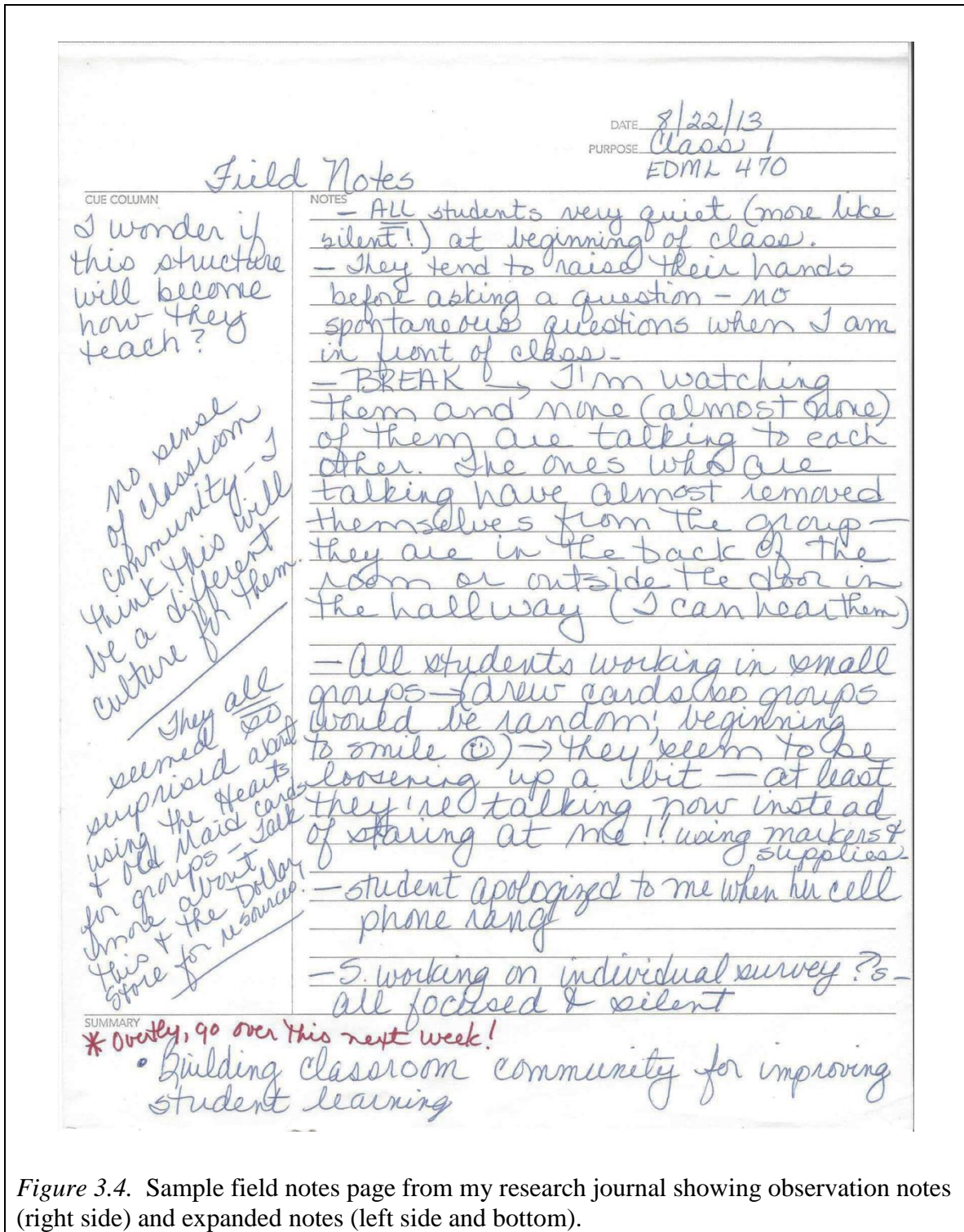


Figure 3.4. Sample field notes page from my research journal showing observation notes (right side) and expanded notes (left side and bottom).

First, I read aloud “Margaret” from Cynthia Rylant’s (1996) book, *Margaret, Frank, and Andy: Three Writers’ Stories*. Next, the students worked collaboratively in groups of four to create a list of defining characteristics of a biographical sketch. During their collaboration, I took notes on the right side of my field notebook that focused on the affective climate of the classroom and how the context from the beginning of the class seemed to be changing based on the actions I observed and the language I heard. After the lesson, I read over my notes, expanded and reflected on the lesson, and noted that, from my observations, building classroom community for improving student learning was an important idea that I wanted to explicitly share with the students during the next class.

Documents and Artifacts

Merriam (2001) stated that “documentary data are particularly good sources for qualitative case studies because they can ground an investigation in the context of the problem being investigated” (p. 126). The documents and artifacts I collected for this study included various response forms that I created for whole class engagements, student-generated writing, and student drawings. I used these documents in subsequent class meetings both to answer student questions and to guide instruction. Using these documents and artifacts allowed me to teach responsively by creating “a classroom environment in which all students are encouraged to make sense of new ideas—that is, to construct knowledge” (Villegas & Lucas, 2002, p. 28).

Figure 3.5. shows an Exit Slip that I created to guide student thinking about an assigned reading from the course textbook, *Teaching through Text: Reading and Writing in the Content Areas* (McKenna & Robinson, 2009/2014). Outside of class, students first

read the chapter which presented questioning and discussion as post-reading strategies across content areas. The during-reading strategy they used for “holding thinking to remember and reuse” (Tovani, 2004, p. 67) was placing sticky notes with their written observations, ideas, reflections, or questions in the text as they read. Once in class, students used their sticky notes to facilitate collaborative conversations first, within small groups, and later, within the whole group, about the content of the reading. Collecting the sticky notes and having students write a reflective response to the strategy use allowed me glimpses into the multiple realities of their thinking about reading and learning in the content areas (Dyson & Genishi, 2005).

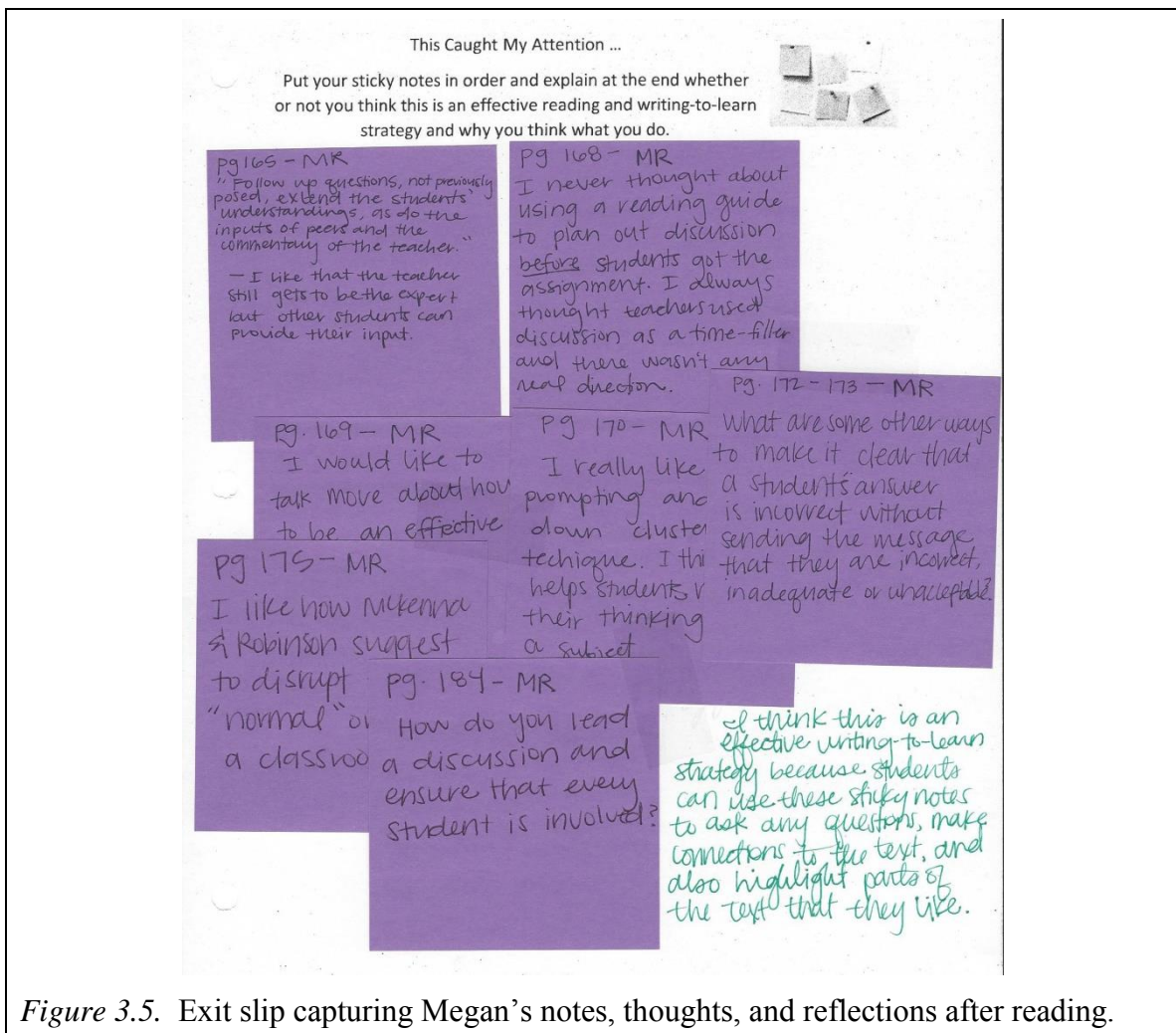


Figure 3.5. Exit slip capturing Megan's notes, thoughts, and reflections after reading.

Audio Recordings

I had two primary purposes for audio recording the students during the context of the course. The first was to capture the members of the case group during their collaborations and conversations with peers. Because these partner and/or small group sessions occurred simultaneously, I could not observe each one first-hand. Instead, I asked students to volunteer to use one of two digital recorders during their sessions. This system allowed me to capture the conversations of the members of the case group as they participated with different partners and/or small groups. The second purpose was to record interviews I had with members of the case group. Qualitative researchers use interviews to find out what is in and on someone else's mind, revealing those thoughts and ideas that cannot be directly observed (Glesne & Peshkin, 1992). In this study, I used two types of interviews, as defined by Patton (1990), to capture the thoughts of the members of the case group:

- the interview guide, or semi-structured, approach focused on a list of questions that I created, revealing each participant's thoughts and ideas about particular concepts and ideas;
- the informal conversational interview provided me with maximum flexibility and the ability to pursue information in whatever direction was appropriate, depending on what emerged from observing a particular event or from talking to one or more students involved in the event as the questions were not predetermined.

I listened to the recordings and tracked the responses on a Conversation Log (see Appendix A). I noted the date of the recorded conversation/collaboration; whether the

session was partner (P), small-group (SG), or interview (I); the topic of the session; the name of the participants; and language reflecting beliefs about reading, learning, and teaching in the content areas. Creating these logs led me to a better understanding of the students' realities of these concepts, as well as informing future instruction in the course. I then transcribed the recordings for later analysis.

Researcher Journal and Memos

As the instructor of the course with the responsibility of teaching the content, it became impossible for me to capture every event that happened during each class in my field notes in real time. For that reason, I stayed for a while after each class and recorded post-observation entries in my researcher journal. I used the same recording system I used for my field notes—observations on the right side of the paper and my reflections about the observations on the left side. These observations stayed in my mind because I knew they would be significant in my research.

Figure 3.6. is a post-observation entry in my researcher journal from the class on August 22. In this entry, I especially wanted to capture the gist of the conversations I had after class with several of the students. I began by noting my concerns about their classroom demeanor, and how it did not reflect the constructivist paradigm for learning I was trying to establish. My reflective thinking focused on the need for building community within the class and addressing the tenets of constructivism. I then wrote about the conversations I had with three students who approached me individually with concerns about the course. Their actions made me think of student agency and self-actualization of perceived needs.

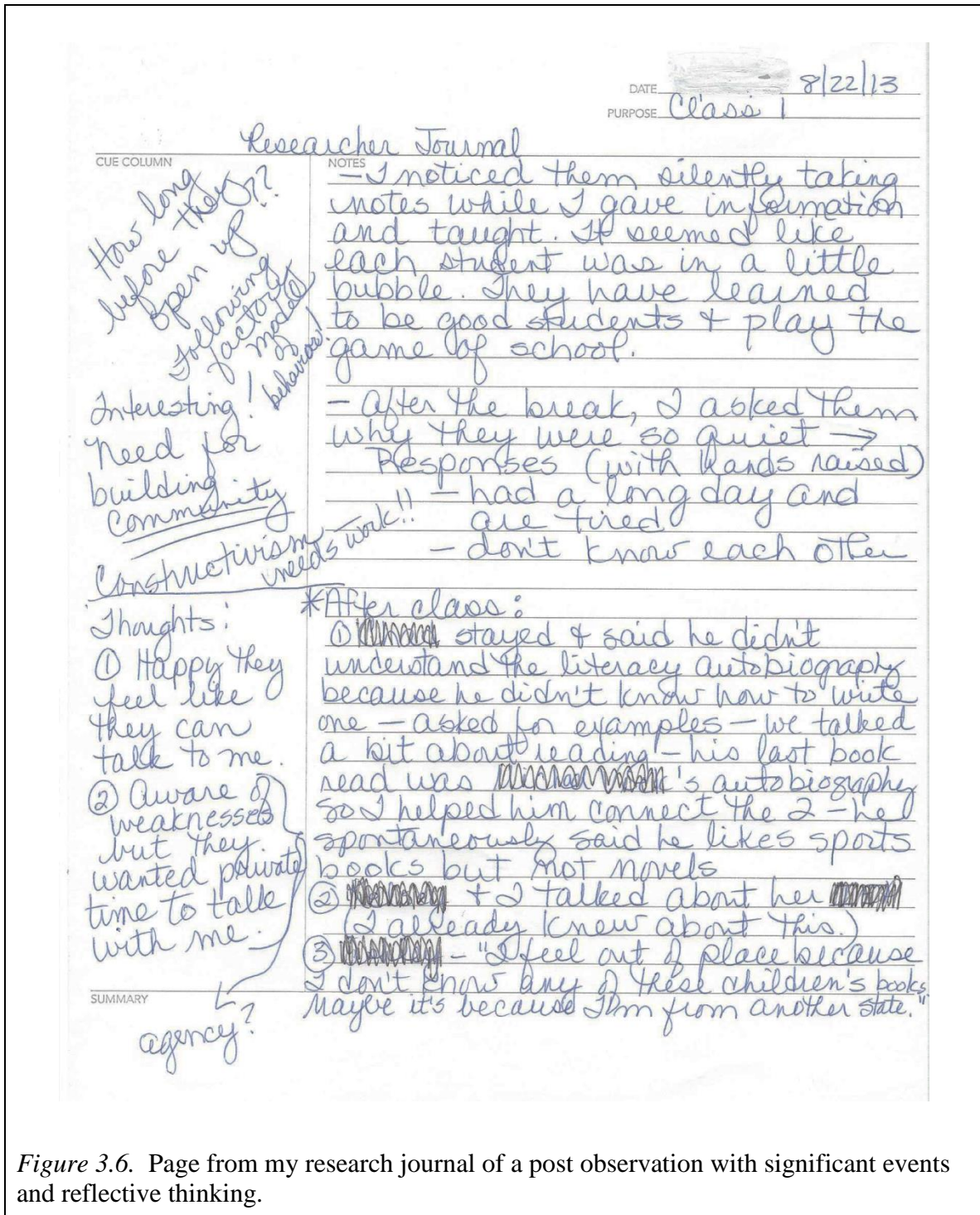


Figure 3.6. Page from my research journal of a post observation with significant events and reflective thinking.

At the end of each month, I reviewed my field notes and researcher journal and wrote a researcher memo in my notebook. This allowed me to synthesize and summarize my thinking about what had occurred during the month and craft what I determined to be the “big ideas.” As Bogdan and Biklen (1998) wrote, “These memos can provide a time to reflect on issues raised in the setting and how they relate to larger theoretical, methodological, and substantive issues” (p. 161).

Figure 3.7. is a memo I wrote outlining what I deemed to be significant ideas from the two class sessions in August. The memo became important to my teaching as I connected subsequent content of the course to student understanding of the constructivist paradigm for teaching and learning in the content areas.

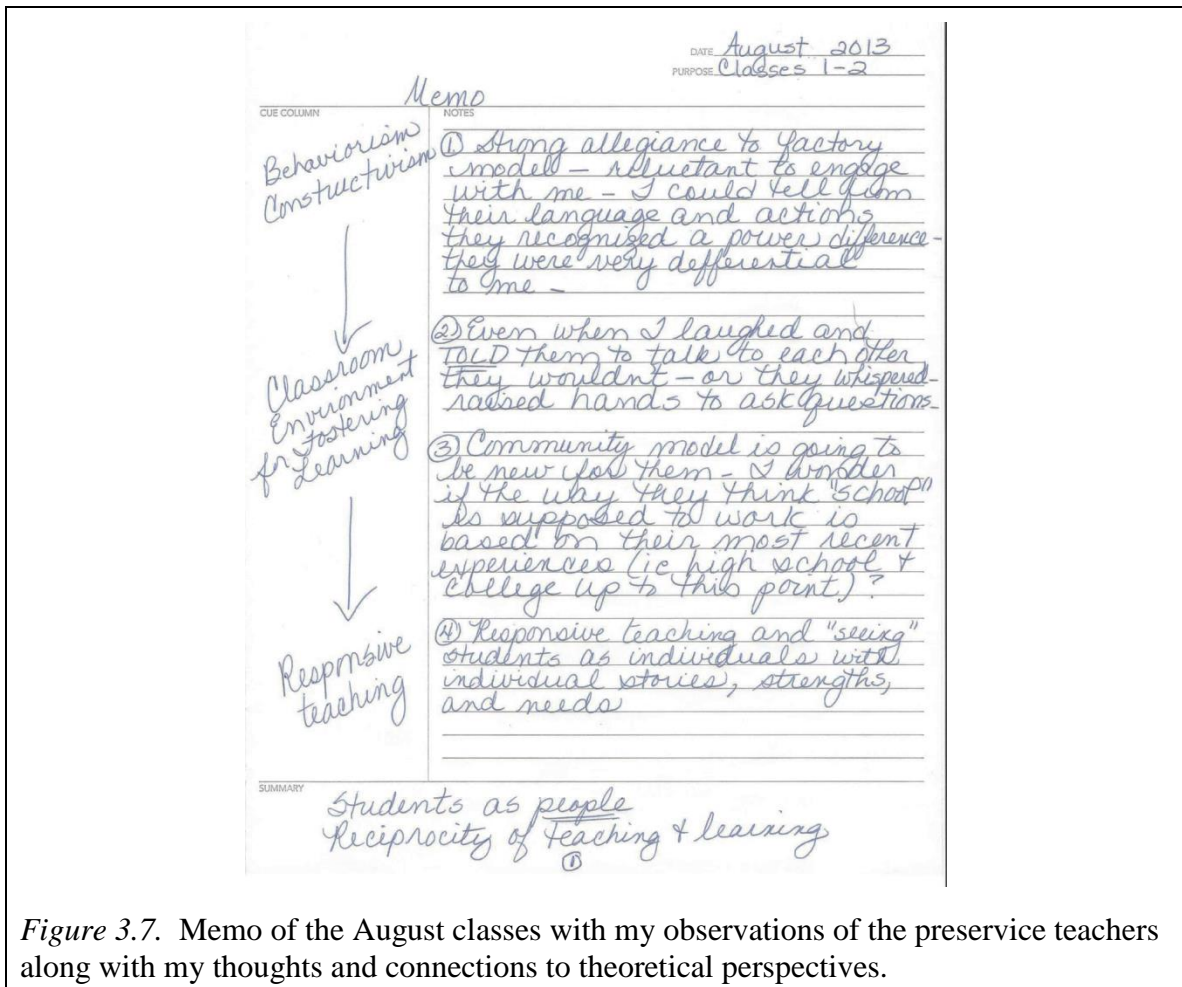


Figure 3.7. Memo of the August classes with my observations of the preservice teachers along with my thoughts and connections to theoretical perspectives.

Study Timeline

The purpose of this study was to explore how the study of and participation in both content area literacy and disciplinary literacy strategies affected predicted instructional practices and beliefs about reading of middle level teacher education students enrolled in a required content literacy course. I actively collected and interpreted data during the semester (late August through mid-December) I spent with these students.

There were three phases to data collection and interpretation: (1) Creating a Community of Learners; (2) Developing Curriculum Foregrounded in Disciplinary Literacy; (3) Exploring Beliefs and Practices. My focus in Phase One was to become an active participant observer by first collecting initial data from the whole class while simultaneously deciding on which students to select as the case group. During this phase, I also focused on creating a learning community by establishing classroom conditions and protocols that would encourage and foster student learning in a workshop environment.

In Phase Two, I actively taught the course content while structuring the curriculum to address significant ideas emerging from my data collection and interpretation. Phase Three was about the students' journeys as they read, wrote, and reflected on their understandings of what it meant for them to transform from being college students into becoming professional educators of young adolescents. Table 3.2 summarizes the data collection timeline, the primary topic of study each week, and the initiation of each phase of the study.

Table 3.2

Data Collection Timeline

Weeks	Topic of Study	Study Phases		
		Phase One: Creating Community	Phase Two: Developing & Exploring Responsive Curriculum	Phase Three: Exploring Beliefs and Practices for Future Instruction
1	Communities of learners	Creating classroom conditions that support the workshop model for instruction in course content Getting to know the students and their beliefs about reading and literacy		Individual thinking and reflecting on beliefs about reading, learning, and teaching in disciplines
2	Reading in content areas and disciplinary literacy			
3	Cognitive reading strategies			
4	Teaching for diversity	Getting to know the case group	Developing and exploring responsive curriculum foregrounded in disciplinary literacy	
5-6	Pre-reading strategies			
7	Strategies for guided reading			
8	Accessible texts			
9	Developing text sets			
10	Establishing reading rigor			
11	Questioning/discussion			
12	Deep comprehension			
13	Extending content knowledge			
14	Independence in disciplinary literacy			Final reflections on beliefs and predicted practices
15	Authentic assessment & evaluation of learning			

06

Phase One: Creating a Community of Learners

Phase One began on August 22, the first scheduled course meeting, and lasted for four weeks. This phase consisted of three overlapping goals. The first was to establish classroom conditions and protocols that would support utilizing the workshop model (Atwell, 1998; Ray, 1999) for instruction in the course content of reading and writing across the curriculum. I had had my “official” introduction to this instructional model in 1999 when, as a middle level classroom teacher, I heard a conference keynote address given by Katie Wood Ray. Hearing her name and validate the instructional practices of allowing students choice in authentic reading and writing engagements, providing students with chunks of classroom time for reading and writing through collaboration with peers, teaching students to become strategic readers and writers, and embracing the pedagogical stance of teaching readers and writers instead of reading and writing, described the teaching I knew I had been doing instinctively with my middle level students.

In her observations of writing workshop, Ray (2001) wrote, “Teaching writing in a workshop setting is highly theoretical teaching. That’s why we do it—because it’s theoretical. Every aspect of the workshop is set up to support children learning to do what writers really do” (p. xii). I believe Ray would support applying her observation to reading workshop as well—with children learning to do what readers really do. Co-construction of knowledge is a key component of the workshop model.

In Phase One I wanted the preservice teachers in EDML 470 *to live* the workshop model by participating in authentic cooperative and collaborative reading and writing engagements of course content and *to learn* the workshop model as an instructional

framework for their future teaching. I wanted them to experience what it meant to collaborate in disciplinary groups of like-minded peers in order to discover deep understandings of course content. By experiencing it themselves, I knew they would be better able to envision what this instructional framework would look like in their own future work with young adolescents.

The second goal I had in Phase One was getting to know the whole class of students as readers, writers, thinkers, and learners. To gain a sense of their beliefs about and experiences with reading, I asked them to complete a series of formal and informal questionnaires. Even though I included this in Phase One, the reality is I learned who my students were as learners and future educators throughout the study. They constantly amazed me by demonstrating growth in their thinking about how young adolescents read and learn in different disciplines. Chapter Four provides additional information on the results and use of this data.

My third goal in Phase One was delineating three criteria for selection of the case group. First, I wanted participants who represented each of the four core disciplines in the Middle Level Education program. Second, I wanted participants who were deep thinkers and routinely expanded their reflective thinking to go beyond simple surface observations. Third, I wanted participants who felt comfortable sharing and talking about their beliefs and thinking with their peers as well as with me. From the data I collected during weeks one - four, I chose four students as purposeful samples of the classroom community and the disciplines: Lauren – ELA; Megan – Social Studies; Josh – Science; and Kayla – Math (students represented their major academic concentrations).

Meet Lauren. Lauren’s two areas of academic concentration were English language arts and social studies. She was very thoughtful and tended to reflect on her thoughts before speaking them aloud. Even though Lauren could be somewhat reserved and quiet, she was sought out by the other students as a partner or group member. Throughout the study, Lauren had a difficult time reconciling her love of personal reading with her beliefs about academic reading. She fondly reminisced about early reading experiences with her parents as she wrote in her *Literacy Autobiography*, “My parents were definitely the most positive influence on me as both a reader and writer.” She described her grade school teachers as “teachers who cared about the success of students were also an incredibly important part of how I learned to read and write.” However, when asked about reading in middle school, Lauren wrote, “Personally, I despised the novels I was forced to read in middle school along with the essays that were required afterwards.” She also described reading in secondary schools as “brutal” and “painfully long.” She initially defined reading as “a complicated process of deriving the meaning of words.” At the beginning of the study, Lauren’s beliefs about inside-school and outside-school reading did not match. She described her favorite kind of reading as “definitely leisure,” but she wrote of academic reading, “When forced to read articles or books for class, I do not oppose it but it is definitely harder for me to remain focused.”

Meet Megan. Megan’s two areas of academic concentration were social studies and English language arts. Throughout the study, Megan was very inquisitive and tended to ask many questions, both in group discussions and written engagements. She always wanted to explore options and look at issues from many perspectives. She eagerly volunteered to share her thinking with the whole group and often took the leadership role

during small group collaborations. In a written reflection of setting purposes for reading, Megan wrote,

Questions posed by students is the method of setting purposes that best matches my teaching style and content. I want to teach history, which I think is fascinating, but I know that my students won't always love the content as much as I do.

Megan described her reading preferences on an informal questionnaire by responding, "A lot of what I read for pleasure comes in the form of non-fiction books or magazines." She also stressed the need for having choice and time to read in the classroom. When asked "To what extent do you think of yourself as a reader," Megan wrote, "I like to read but I don't enjoy being forced to read," and later, "Being forced to read at a fast pace made me dread the start of a new novel." Megan's reading life reflected her love of history and the need for having students read informational texts along with the textbook. She indicated on an Admit Slip (October 3) that while she thought the textbook was a great tool and resource for teaching content, she also thought it did not have to be the only text used for instructional purposes. She noted, "Reading and writing doesn't just happen in ELA classes."

Meet Josh. Josh's two areas of academic concentration were science and social studies. He was a deep thinker who tended to be somewhat quiet and needed coaxing when it was time to share his ideas. Josh self-identified as a "random reader" who liked to read scientific articles and news reports but not novels. He did, however, like to read autobiographies for the life lessons he thought he could learn. During the study, Josh repeatedly stressed the need for effective vocabulary instruction in science. In a written

reflection of an academic reading selection in the course, Josh noted that was “imperative to build content vocabulary in science because it helps the students understand the lessons and specific content.” In his written self-reflection of a lesson plan he created, he wrote, “Purposeful planning of reading and writing strategies will help your students tremendously because it will prepare them to think abstractly and critically and learn new vocabulary.” He also observed, “Vocabulary in science and social studies can be and is very different from the vocabulary in ELA.” Josh admitted that he did not like to read in elementary school and did not remember looking for books to read for enjoyment. The one thing he remembered reading and enjoying was series books. On the informal questionnaire, Josh acknowledged the importance of the role of reading in the disciplines as “a foundation to succeed in all subject areas.” When asked about the role reading instruction would play in the lessons he would plan for his future students, Josh wrote, “Very big as my students will read various scientific articles and many history books.”

Meet Kayla. Kayla’s two areas of academic concentration were mathematics and science. To me, Kayla seemed an enigma. She was very quiet and reserved during class conversations and discussions. Whenever she volunteered to share her thinking with the whole group, she was generally succinct and to the point. However, Kayla appeared to feel more comfortable sharing her thoughts in both small group and individual collaborations and conversations. She usually served as the leader in the mathematics disciplinary collaborative group, guiding and directing the conversation. Additionally, her written responses showed the depth of her thinking and her willingness to explore new ideas and concepts about reading and learning. It was through her writing that Kayla questioned her beliefs and expressed how her thinking about reading and learning in her

two chosen disciplines changed during the semester. When asked on the informal questionnaire, “To what extent do you think of yourself as a reader,” Kayla wrote, “I am definitely not a reader. I never read for entertainment; I only read for school.” She also wrote that math and science are best taught with hands-on and interactive activities. Reading, according to Kayla, meant “the pronouncing of letters which then form words that leads into sentences. It’s a difficult process at first.” She also observed how reading in secondary schools meant “boring textbooks.” However, Kayla’s beliefs about reading in mathematics changed during the study. On one of her final written reflections, she admitted, “I never realized how important literacy was in math and science until this course. Literacy is now my new best friend every time I enter the classroom.”

Phase Two: Developing Curriculum Foregrounded in Disciplinary Literacy

Phase Two lasted approximately ten weeks as I shaped the pre-existing curriculum for the content literacy course to foreground it in disciplinary literacy. However, I had constraints on how extensively I could adapt the curriculum as there were two sections of the course, and I only taught one of the sections. Both sections of the course were required to share a common syllabus with common goals and objectives for student learning. This common syllabus better reflected a content literacy based curriculum than one which foregrounded disciplinary literacy. Appendix B shows the Semester Plan that I developed for my section of the course. The adaptations I made to foreground disciplinary literacy are in italics.

Additionally, I had to define the language I would use when I referred to literacy and literacy strategies during the course (see Table 3.3). It was important for each student to have a clear understanding of how the various literacies had commonalities and

differences. I wanted them to understand why I included each of these literacies within the content of the course.

Table 3.3

Definitions of Literacies

Literacy	<ul style="list-style-type: none"> The activities of reading, writing, speaking, listening, viewing, computing, and researching that may be required of an individual to participate in the various activities associated with learning, knowing, and communicating.
Content area literacy	<ul style="list-style-type: none"> The knowledge and skills individuals need to negotiate and create the texts they encounter as part of content area learning and knowing.
Cognitive/comprehension literacy	<ul style="list-style-type: none"> Constructive interactions with a variety and range of texts in which individuals continuously create meaning through strategic thinking processes.
Disciplinary literacy	<ul style="list-style-type: none"> Strategies that mirror the kinds of thinking and analytical practices common in different disciplines, enabling individuals to directly and explicitly address specific and highly specialized disciplinary reading demands.

Note. Based on *(Re)Imagining Content-Area Literacy Instruction* by R.J. Draper (Ed.), 2010, New York, NY: Teachers College Press.

Throughout the ten weeks, I used my field notes, researcher journal, and memos to shape the curriculum and reflect what I believed to be the instructional needs of the students in the course. Because the course met weekly on Thursday, I spent the amount of time that was necessary on the following Tuesday and Wednesday to analyze the documents and artifacts I had gathered from the students during the previous week. This information guided me through an instructional decision-making process and allowed me to adjust the previously established lesson plan for the next class meeting. These adjustments allowed me to create responsive learning engagements in real time that invited all students in the course to engage in and reflect on disciplinary literacy learning.

Phase Three: Exploring Beliefs and Practices

Phase Three took place between weeks one and fifteen. This phase focused on the preservice teachers as they explored and reflected on their beliefs about reading and learning and how these beliefs would affect their predicted instructional practices and interactions with their future students. All of their learning engagements that connected to the course content included a written self-reflection component.

As their knowledge and understanding of effective instructional practices for teaching young adolescents grew through their classroom collaborations, they created and reflected on disciplinary text sets and strategy lesson plans. All students created Powerpoint presentations that detailed how they viewed themselves as disciplinary literacy teachers. Collecting these written reflections gave me data for analysis from members of the case group in addition to helping me teach responsively based on the identified questions and needs of the whole class.

During the last class of the course, all students in the course engaged in self-selected learning engagements, including annotating the text and writing-to-learn. As students worked independently, I held reflective conversations with members of the case group. During these conversations, I asked them to reflect orally on what they had learned as a result of being in the course. I used transcriptions of these conversations in my later analysis.

Data Analysis

The reality of data analysis is it begins simultaneously with data collection, allowing the researcher to focus and shape the study as it proceeds. Stake (1995) wrote, “There is no particular moment when data analysis begins. Analysis is a matter of giving

meaning to first impressions as well as to final compilations” (p. 71). For this study, I separated analysis into two phases: early analysis and later analysis.

Early Analysis

Early analysis began at the onset of this study in August and continued until the end in December. During that time, I gathered documents and artifacts that reflected both the content the preservice middle level teachers studied and their reflections about reading and teaching. Because all students enrolled in the course were expected to adhere to the requirements in the syllabus, I collected data from all students, but I focused the later analysis phase on that of the case group. Early analysis of course documents helped me achieve the ultimate goal of the study which was to explore the beliefs of preservice teachers about reading, learning, and instructional practices from the beginning to the end of their enrollment in the content literacy course. Table 3.4 shows the number and variety of individual responses I collected and analyzed for each member of the case group.

Table 3.4

Case Group Set—Individual Responses

	Formal Course Products	Informal Course Documents	Recorded Conversations	Total Responses
Kayla	8	28	2	38
Lauren	8	26	2	36
Megan	8	29	1	38
Josh	8	22	1	31

I used the early analysis of data to guide my instructional planning of the course content. Within the context of the course, I provided opportunities for students to think broadly and deeply about their literacy beliefs by teaching responsively to the thinking they shared through documents, artifacts, and conversations. Table 3.5 shows the open

coding (Strauss & Corbin, 1990) I used during early analysis to identify students' thinking about beliefs, literacy, and teaching. Using open coding helped make patterns more visible and led me to create preliminary categories as they emerged from the data. As the data expanded, I turned to axial coding (Strauss & Corbin, 1990) as I searched for relationships between and among the preliminary categories.

Table 3.5

Case Group Set—Coding for the Early Analysis of Data

Code	Goal
BA – Belief/Attitude	Identify self-reported beliefs about and attitudes toward reading, reading instruction, strategies, literacy, teaching, learning
R – Reading	Identify observations about reading as a practice in oral and written responses
IR – Instruction of Reading	Identify reading instructional practices used in classroom engagements and included in oral and written responses
SR – Strategies for Reading	Identify specific reading strategies, named and unnamed, selected for classroom engagements and included in oral and written responses
CL – Content Area Literacy	Identify connections made between reading and other elements of content area literacy in oral and written responses
DL – Disciplinary Literacy	Identify specific reading practices in each of the four core disciplines along with other references to elements of disciplinary literacy

Later Analysis

Patton (1990) urged qualitative researchers to “do the very best with your full intellect to fairly represent the data and communicate what the data reveal given the purpose of the study” (p. 372). Throughout this study, I searched for meaning within the data by naming patterns, creating possible explanations, and synthesizing my thoughts to

connect this study with other studies of preservice teachers' beliefs (Glesne, 2006). This search for meaning led me to analyze data with a sense of correspondence, defined by Stake (1995) as "a search for patterns, for consistency within certain conditions" (p. 78). Bits of data revealed through the context of the study connected patterns, establishing correspondence and revealing categories within and across the data (Merriam, 2001; Stake, 1995). Later data analysis also centered on the constant comparative method (Glaser & Strauss, 1967) and took place outside the context of the content literacy course at the end of the fall semester.

Describing the constant comparative method, Merriam (2001) wrote, "The basic strategy of the method is to do just what its name implies—constantly compare" (p. 159). In a constant comparative analysis, the researcher addresses tentative categories and reviews recurring patterns across the data set, offering a lens to the study which allows frequent comparisons to be hypothesized and categories to be organized and established. Making these systematic comparisons helped me both to determine correspondence and inductively discover relationships within and across the data set (Lincoln & Guba, 1985; Merriam, 2001).

I began the later phase of analysis by transcribing all of the audio recordings and reorganizing all of the data collected from the case group into four types: responses related to earlier reading experiences; responses related to reading and literacy strategies; responses related to future teaching and literacy instruction; and, oral conversations and interviews (see Table 3.6).

Table 3.6

Data Collection Totals by Type

Data Set	Data Type	Number (Total = 66)	Percentage
Case Group Data	Responses related to earlier reading experiences	16	24
Case Group Data	Responses related to reading and literacy strategies	19	29
Case Group Data	Responses related to future teaching and literacy instruction	20	30
Case Group and Peer Data	Oral conversations and interviews	11	17

Analysis of the Case Group Data Set. I used constant comparative analysis (Glaser & Strauss, 1967; Lincoln & Guba, 1985) to make sense of the informal and formal documents and the reflective conversations I had with members of the case group. By reading and rereading the data, I identified patterns in the thinking and beliefs in the case group members' oral and written reflections and responses. Five belief statements emerged from the patterns for each phase of the study, which I then named (see Table 3.7).

Table 3.7

Case Group Data Set—Patterns of Beliefs

<p><u>Initial Beliefs about Reading:</u></p> <ol style="list-style-type: none">1. Reading awareness and confidence is a process that begins in early childhood and is reinforced through interaction with caring, supportive adult mentors.2. Reading must be an enjoyable experience if it is to have value.3. Reading is a linear process, beginning with naming letters and identifying sounds, and ending with reading words, sentences, and paragraphs.4. Reading in-school and out-of-school are dissimilar experiences.5. Reading in school helps students learn basic skills in content areas.
<p><u>Developing Beliefs about Content Area/Disciplinary Literacies:</u></p> <ol style="list-style-type: none">1. Middle level students learn best in student-centered classrooms.2. Middle level students must have accessible texts in all content areas.3. Middle level students must learn critical reading strategies for deepening their comprehension and understanding of conceptual knowledge in all content areas.4. Teachers of middle level students must understand the process of reading.5. Teachers of middle level students must teach specific disciplinary literacy strategies.
<p><u>End-of-Course Beliefs about Literacy, Learning, and Predicted Instructional Practices:</u></p> <ol style="list-style-type: none">1. Teachers must create active, engaging classrooms that maximize student learning.2. Teachers must incorporate a variety and range of texts and resources into instruction.3. Teachers must incorporate a variety of literacy strategies into their instruction if students are to become better readers, writers, and thinkers in the content areas.4. Teachers must plan for collaborative learning engagements and student sharing of thinking.5. Teachers must read professional publications in order to grow as educators and incorporate new ideas into their instructional planning.

I used several rounds of constant comparative analysis (Glaser & Strauss, 1967; Lincoln & Guba, 1985) to arrive at these categories. It was important for me to remain open-minded during my initial reading of the case group data set so I could see what the data revealed from these preservice teachers. Appendix C is an example of my methodology for recording each member of the case group's written responses I deemed to be significant and insightful to a series of open-ended questions about their sketches of remembered favorite reading experiences. As I began to read the data, I wrote notes in my research journal about what seemed important and then consolidated my thinking into what I called "big ideas" and "possible patterns." Reading subsequent data helped me clarify the categories as I found new data excerpts connected with the same big ideas and possible patterns. Identifying the big ideas and possible patterns helped me name the beliefs.

The journal page in Figure 3.8. shows my first attempt at naming the big ideas and possible patterns I connected with some of the ways the preservice middle level teachers in the case group responded in their literacy autobiographies. I initially took notes on what I thought were the significant ideas each student expressed in their Talking Points, a reflective writing engagement that I created to provide a lens into their thinking about themselves as readers and writers. I either directly copied what they wrote or summarized and synthesized ideas I thought were similar. Next, I reread the notes so I could initially begin to name the beliefs and attitudes about reading that I thought each student was describing. Additionally, I used open coding to categorize my notes for later analysis.

Patterns - My Literacy Autobiography
(Talking Points)
Sept. 4, 2013

K → (B) importance of prediction + use (SR)
of text features to aid comprehension
L → (B): importance of developing self
(R) as reader; thinks of it as a linear
process from simple to complex
M → (B): same as L in self-selection
of books & developing a sense of
self as a reader
J → (B): importance of reflective thinking;
transaction with text - (R) reading
and making connections (SR)

K, L, M, J → (B)(R) Critical elements =
motivation; student interest;
enjoyable

[RQ1] Possible
Patterns:

- development of the self as a reader
- importance of self-selection of texts
- role of motivation to read
- importance of enjoying the reading
experience

Figure 3.8. Page from research journal showing how I recorded big ideas and named emerging possible patterns of beliefs and attitudes. K = Kayla. L = Lauren. M = Megan. J = Josh. B = Belief. R = Reading. SR = Strategies for reading. RQ1 = Research question 1.

Through numerous rereadings across my naming of individual beliefs (“importance of developing self as a reader,” “importance of reflective thinking”), I began to notice what I determined to be patterns emerging from the data about the students’ personal and collective beliefs. Using my own knowledge and understanding of literacy practices, I began to name what I called “possible patterns” in each data set I collected during the study. The journal page shows how I named the possible patterns in the literacy autobiography data set as “development of the self as a reader; importance of self-selection of texts; role of motivation to read; and, importance of enjoying the reading experience.”

After I read all the case group data (documents and transcripts) for each of the three phases of the study, I transferred all of the possible patterns for each phase from my research journal into three individual charts. I assigned initial codes to each of the possible patterns by numerically ordering each of the statements based on its emergence from the chronologically arranged data sets. Doing this enabled me to focus on smaller chunks of data and allowed me to assess the consistency of my initial patterns and their connections to the research questions.

Through my analysis, I was able to merge statements that were closely connected or overlapped, creating what I deemed to be the overarching belief statements of the case group about reading, reading instruction and disciplinary literacy, and predicted instructional practices (see Table 3.8). For example, when I analyzed the categories of initial beliefs and attitudes about reading in phase one, I decided to merge the initial code #6, “Importance of adult mentors who care and help—this grows confidence in readers,” with initial code #1, “Development of the self as a reader, with emphasis on early reading

with parents.” Closer analysis of the data set led me to conclude that while the case group members both wrote and talked about the necessity of having supportive parents and teachers in their development as readers, these two individual statements actually represented components within the continuum of self-actualization as a reader.

Subsequent analysis led me to merge initial codes #2, #7, and #9 with initial code #1 to create the belief statement, “Reading awareness and confidence is a process that begins in early childhood and is reinforced through interaction with caring, supportive adult mentors.”

Table 3.8

Phase One: Case Group Data Set—Initial Categories

Initial Code	Action	Category
1	Kept	Development of the self as a reader, with emphasis on early reading with parents
2	Merged with #1	Importance of self-selection of texts; student interest; age-appropriate texts; personal connections to text
3	Merged with #4	Role of motivation in reading success; purposeful reading
4	Kept	Importance of enjoying the reading experience; engaging with text
5	Merged with #4	Use of pictures
6	Merged with #1	Importance of adult mentors who care and help—this grows confidence in readers
7	Merged with #1	Reading improves with practice
8	Merged with #4	Positive affective classroom environment
9	Merged with #1	Reading provides life lessons
10	Merged with 11	Phonics/decoding sounds/words
11	Kept	Reading development as a linear process; begin with simple text to build to complex text
12	Merged with 13	Reading never seemed important
13	Kept	Disconnect between personal and academic reading
14	Merged with 15	Secondary reading: Boring; resentful students
15	Kept	Literacy to maintain basic skills—no recognition of deepening comprehension & understanding

By utilizing this reflective process throughout all three phases of my data analysis, I was able to merge initial categories into generalized statements of beliefs and attitudes for each phase. I applied another round of constant comparative analysis (Glaser & Strauss, 1967; Lincoln & Guba, 1985) once I solidified the categories. Doing this ensured the internal consistency of patterns within each category (see Table 3.9).

Table 3.9

Phase One: Case Group Data Set—Final Categories of Belief Statements

Final Code	Statement	Initial Codes Merged
PHASE ONE		
1	Reading awareness and confidence is a process that begins in early childhood and is reinforced through interaction with caring, supportive adult mentors.	2,6,7,9
2	Reading must be an enjoyable experience if it is to have value.	3,5,8
3	Reading is a linear process, beginning with naming letters and identifying sounds, and ending with reading words, sentences, and paragraphs.	10
4	Reading in-school and out-of-school are dissimilar experiences.	12
5	Reading in school helps students learn basic skills in content areas.	14
PHASE TWO		
1	Middle level students learn best in student-centered classrooms.	3,5,7,10, 11,14
2	Middle level students must have accessible texts in all content areas.	2
3	Middle level students must learn critical reading strategies for deepening their comprehension and understanding of conceptual knowledge in all content areas.	12
4	Teachers of middle level students must understand the process of reading.	
5	Teachers of middle level students must teach specific disciplinary literacy strategies.	8
PHASE THREE		
1	Teachers must create active, engaging classrooms that maximize student learning.	1,7
2	Teachers must incorporate a variety and range of texts and resources into instruction.	6,12
3	Teachers must incorporate a variety of literacy strategies into their instruction if students are to become better readers, writers, and thinkers in the content areas.	4,10,11
4	Teachers must plan for collaborative learning engagements and student sharing of thinking.	
5	Teachers must read professional publications in order to grow as educators and incorporate new ideas into their instructional planning.	

Trustworthiness

There is a consensus among qualitative researchers that interpretations based on observed and collected data must be trustworthy (Glesne & Peshkin, 1992; Purcell-Gates, 2004, Stake, 1995). Interpreting meanings and significance of data is highly inferential so it becomes the responsibility of the researcher to make these inferences carefully and thoughtfully (Hatch, 2002). Because the worth of any research endeavor is evaluated by peers and readers, it must be assessed using relevant criteria (Krefting, 1990).

Guba (1981) proposed a model of trustworthiness in qualitative research based on the identification of four criteria: truth value, applicability, consistency, and neutrality. His model further defined strategies to establish trustworthiness along with criteria for each strategy. These strategies are important for the researcher to use in designing ways for increasing the rigor in a qualitative study. As Eisner (1998) wrote, “One of the persistent sources of difficulty for those using qualitative methods of research and evaluation pertains to questions about the validity of their work” (p. 107). I used Guba’s (1981) four strategies—credibility, transferability, dependability, and confirmability—to strengthen the trustworthiness and quality of this study. Table 3.10 summarizes the aspects, strategies, and criteria for establishing trustworthiness in naturalistic qualitative research.

Table 3.10

Guba's (1981) Model of Trustworthiness in Qualitative Research

Aspects of trustworthiness	Strategies for establishing trustworthiness	Criteria for strategy
Truth value	Credibility	<ul style="list-style-type: none"> • Prolonged engagement • Persistent observation • Triangulation • Member checking
Applicability	Transferability	<ul style="list-style-type: none"> • Thick description
Consistency	Dependability	<ul style="list-style-type: none"> • Audit trail
Neutrality	Confirmability	<ul style="list-style-type: none"> • Practice reflexivity

Credibility

Truth value of qualitative research is established when participants have confidence in the truth of the findings. Lincoln and Guba (1985) termed this *credibility*. I chose four criteria for establishing credibility for this study.

Prolonged Engagement. Qualitative research relies on identifying and documenting recurring features such as themes and patterns. This suggests the need for spending sufficient time, or *prolonged engagement*, with participants (Lincoln & Guba, 1985). Spending fifteen weeks alongside the students enrolled in the content area literacy course provided opportunities for me to foster familiarity with them. This prolonged engagement, totaling approximately forty-five hours in class along with extra time before and after class, was important because as the weeks passed and the learning community developed and rapport increased, students began to share more of their thinking and reflections on their beliefs about reading, learning, and teaching.

Persistent Observation. As the instructor of the course, I was able to conduct *persistent observations* of the students as they took part in whole-group, small-group, partner, and independent learning engagements. In my analysis of the data I collected, I

noted in my journal and memos both persistent qualities exhibited by the students along with any atypical characteristics that I deemed to be critical to my characterization of the study (Eisner, 1979). For example, I noted in my journal entry dated October 24, 2013, how surprised the students seemed to be when I brought up the idea of banned books for young adolescents—something they thought only applied to books for adults. I also noted my own surprise at Michael’s request to share with the class a story and photographs of his previous weekend visit to a local landmark. He had made this trip after hearing me share an idea with the class about incorporating information about local landmarks into eighth-grade social studies instruction. By incorporating what he was learning in class with his life outside class, I knew that Michael was beginning to understand what it meant to create authentic, purposeful learning engagements for students by merging in-school and outside-school literacies.

Triangulation. *Triangulation of data methods* enhanced the credibility of the study. Stake (1995) described three types of triangulation—data source, investigator, and methodological—all of which I used in this study.

Data Source Triangulation. It is critical to the credibility of qualitative research to see if what is observed and reported carries the same meaning when found under different circumstances. Using field notes and observations, documents and artifacts, interviews and reflective conversations provided me with numerous opportunities for using data source triangulation to determine if what I found had the same or similar meaning across different circumstances. For example, I used observations of case group members as they worked with different classmates, documents they created for different learning invitations, and informal conversations I had with them about different reading

concepts to explore their beliefs and new learning across different circumstances. As I analyzed Megan's responses to her growing awareness of incorporating literacy strategies into instructional planning, I noticed a consistency in her thinking:

- I really liked the 'Word in my Context' chart located on page 25. I like that a lot of activities in this article guided students' thought process. (Reading and Thinking like a Teacher document, September 25, 2013)
- I don't mind doing the assignments in here because I know they'll be useful. (Field notes, October 31, 2013)
- Throughout the semester we have talked about how important it is to engage students in text and in the content areas that we as teachers are passionate about. There are so many resources and strategies available to teachers to help invite students into the passion we have for the content we are teaching. (Written reflection about strategy lesson plan, November 6, 2013)

Investigator Triangulation. The design of the study allowed me to collect different participants' perspectives of the phenomenon I studied. Because I created a sociocultural framework for learning and instruction using the workshop model, students in the course co-created knowledge and functioned as reflective practitioners both with their peers and with me during whole-group conversations. Thus, these reflective conversations I had with the case group members and the other students in the course provided a means for triangulation as every participant in the course investigated beliefs and instructional practices. In a conversation with three students with academic

concentrations in math, I asked what they thought about incorporating reading strategies into math instruction:

Janie: Do you think these reading strategies in 470 make sense for math?

Gabrielle: I think with alterations to them they can be made for math. Like when I was doing my lesson plan strategies, I could see like where they were going with the concept—but if you to use it, like straight out of the book, like the way they used it or explained it, it would just be something to do in math, instead of the students getting something out of it—but with alterations, like one of the strategies I used I kind of tweaked it and it fit math, but originally it didn't.

Kayla: Even at the beginning I had a hard time connecting like how a lot of things connected to math even though you were like a lot of things related to math I would still be like I don't see it. And like my mom's a teacher and so sometimes after class I would call her and she would be like no, no, no this really does connect to it so it's like as this semester went on I thought it was really cool to see how reading and writing integrate with math.

Kathryn: I think if you look at the role of the strategies like we read and write to learn more, then those ideas need to go in the math class. If you're like even though math appears to be black and white, there's not just one way to do things. I think some of the ideas behind why we use reading and writing is something to keep in

mind, if that makes sense. (Small group conversation about reading in math, December 12, 2013)

By triangulating their responses, I was able to determine one of their disciplinary beliefs about reading in math is it must be purposeful in deepening students' understanding about mathematical learning. They also appeared to be intrigued by the idea of mathematical literacy and wanted to explore further how to incorporate reading strategies into their future instruction.

Methodological Triangulation. The principal methods in case study are observation, interview, and document review. Throughout the study, I used these three methods to collect data for analysis. Using methodological triangulation allowed me to focus on what I deemed to be significant ideas while discarding what seemed to be extraneous. For example, Josh noted the importance of vocabulary in science during several of my observations of his interactions with his peers, interviews with him, and reviews of his written documents. Therefore, using methodological triangulation led me to conclude that Josh believed one concept in effective science instruction included overt teaching of critical scientific vocabulary.

Member Checking. In qualitative research, it is important for participants to recognize their experiences in the research findings (Krefting, 1990). Building on the work of Lincoln and Guba (1985), Krefting (1990) defines *member checking* as: “A technique that consists of continually testing with informants the researcher’s data, analytic categories, interpretations, and conclusions. This strategy of revealing research materials to the informants ensures that the researcher has accurately translated the informants’ viewpoints into data” (p. 219). Member checking throughout this study

focused on the reflective conversations I had with the participants. Throughout the study, I had opportunities to engage in both oral and written conversations with participants to ask clarifying questions about something that was said or written as part of the course context. Figure 3.9. shows an example of a written conversation I had with one of the students about a social studies lesson plan she designed and created. As I reviewed her lesson plan, I wrote my comments and questions as marginalia on her paper. The student was then able to review the notes and have a mini-conference with me to share her reflective thinking and clarify the ideas in the lesson plan that I questioned. Using reflective conversation for clarification and verification prevented me from imposing my own interpretation on a participant's thinking.

Transferability

The necessity of context in a study is affirmed by transferability (Lincoln & Guba, 1985). Characteristic of a naturalistic study, thick descriptions are necessary to give the reader context. It is the richness of those descriptions that determines the degree of transferability of the study. Readers determine how closely their contexts match the research context, and hence, whether the findings can be transferred (Merriam, 2001).

Denzin (1989) wrote, "In thick description, the voices, feelings, actions, and meanings of interacting individuals are heard" (p. 83). It is thick description that sets up and makes interpretation of data possible. Indeed, thick description's aim is to go below the surface of the data to the place described by Eisner (1998) as "that most enigmatic aspect of the human condition: the construction of meaning" (p. 15).

Shannon Turner

Notes" and explain why they chose those questions to the class. 6. Write at least one question from each group on the board. Encourage students to write down the questions, as they may see the questions again. 7. Once every group has shared at least one question and student questions have been answered, instruct them to return to their desks. 8. Have students complete the summary of notes at the bottom of the Cornell Note-taking chart individually at their desks.	} Very engaging
2. DURING READING AND WRITING STRATEGY: Questions Game (<i>Tools for Teaching Content Literacy</i> – Janet Allen)	
REQUIRED MATERIALS: • Colored Note cards for the Questions Game (<i>Tools for Teaching Content Literacy</i> – Allen) • <i>Behind the Blue and Gray: The Soldiers Life in The Civil War</i> – Delia Ray • Copies of <i>Behind the Blue and Gray</i> excerpt (shared) • Overhead	Yeah! I like the way you're bringing other texts in
STEP-BY-STEP PROCEDURES 1. Once students are in their seats, handout different colored notecards to students around the room. 2. Remind students to continue writing down interesting vocabulary they hear throughout the lesson about the 54 th Massachusetts Infantry 3. Read Aloud: <i>Behind the Blue and Gray</i> (bottom of p. 74 – top of p. 75), show image on p. 76-77. 4. Using the directions in the Allen text, have students complete the Questions Game (Allen) with the text read. (Hand-out a copy of the text read aloud after they have gone into their assigned groups (by colored note card) students can refer to the text for questions and citations, project image from p. 76-77 on the overhead) 5. Once the students have had ample time to discuss the questions they had asked on their colored notecard, have the pairs formulate at least 2 questions or informational statements they have concluded about the read aloud material. 6. After the class discussion of the Questions Game have students return to their seats and Turn & Talk to their neighbor about the information they just learned.	Yeah! Why did you choose this book? nice collaboration
3. POST-READING AND WRITING STRATEGY: Exit Slips (<i>Tools for Teaching Content Literacy</i> – Janet Allen)	
REQUIRED MATERIALS: • Exit-Slips	
STEP-BY-STEP PROCEDURES 1. Conclusion of class: Have students complete an Exit Slip. 2. Ask them to include 1 fact they learned from the video, 1 fact they learned from the reading, and 1 thing they learned that they did not already know that surprised them. Instruct them to use vocabulary they have been writing down throughout the class to include in their facts 3. Have students turn Exit Slip and Cornell Note-Taking Chart in before leaving the classroom for assessment of comprehension and a participation grade.	This is also formative assessment. Can you explain more to me about how you think of assessment?

Nicely planned!

Figure 3.9. Excerpt of my written conversation with Beth about her strategy lesson.

To help me unlock a comprehensive understanding of the phenomena of beliefs and instructional practices in my chosen context, I carefully captured data from multiple sources in the field and melded it into my writing. I invite readers into the study by providing thick descriptions of the preservice teachers in the case group, the classroom engagements, the collaborative conversations, samples of documents and artifacts. I encourage readers to visualize the scene, to envision the journey of these preservice middle level teachers as they examined their beliefs and probed their thinking about becoming teachers, and to make personal decisions of transferability (Creswell, 2007; Eisner, 1998).

Dependability

Dependability is related to consistency of the findings. I increased dependability of the study by creating an audit trail that recorded the evolution of the decisions I made (Merriam, 2002). Referring to this as a *chain of evidence*, Yin (2003) wrote, “The principle is to allow an external observer—in this situation, the reader of the case study—to follow the derivation of any evidence, ranging from initial research questions to ultimate case study conclusions” (p. 105). The audit trail takes the form of documentation (for example, the actual notes I took during the final interview with the case group) and a running account of the process (as in the form of the field notes, researcher journal, and memos).

Confirmability

I entered this study knowing that, as the primary instrument for data collection and analysis, all observations and analyses would be filtered through my viewpoints, values, and perspectives. This necessitated my stance as a critically reflexive practitioner

throughout the study. Pollner (1991) defined reflexivity as “an ‘unsettling,’ i.e., an insecurity regarding the basic assumptions, discourse, and practice used in describing reality” (p. 370). Thus, my construction of reality in the context of the study interacted with the students’ constructions of the phenomena of beliefs and disciplinary literacy practices (Merriam, 2001). Critical reflexive practice became an important part of the study as I thought more critically about my own assumptions and actions and the impact of those assumptions and actions on others (Cunliffe, 2004).

As a qualitative researcher who engaged in a naturalistic inquiry that emerged from my own interest in preservice middle level teachers and their beliefs about disciplinary literacy and instructional practice, I brought all of my beliefs and schema into the research setting and the data I collected. Additionally, the questionnaires and engagements I created for the students and the workshop model that framed instruction reflected my own beliefs about what constitutes effective literacy practice. Because of this, I routinely monitored my biases and recognized how my biases might influence my interpretation of the data by writing entries in my researcher journal each time I completed coding a set of data (Bogdan & Biklen, 1998; Spradley, 1979). I took these steps as a qualitative researcher striving for confirmability to help ensure, as far as possible, that the findings were the result of the responses and ideas of the members of the case group, rather than my own characteristics and preferences (Shenton, 2004).

Researcher Positionality and Subjectivity

As a qualitative researcher, I began this research with the goal of seeking a variety of perspectives about reading, learning, and teaching in the disciplines. I knew I wanted to learn and understand more about preservice middle level teachers’ perceptions of the

effects of the content literacy course on their beliefs and predicted practices. However, I knew I also had to acknowledge the ways in which I brought my own life experiences and history with reading, learning, and teaching into the context. It was the synthesis of these experiences and history that shaped my perceptions by creating the framework through which I viewed the context of the study and the data.

Eisner (1998) observed, “Percepts without frameworks are empty, and frameworks without percepts are blind...What we come to see depends upon what we seek, and what we seek depends on what we know how to say” (p. 46). In this way, I acknowledge the bias that existed from the inception of this research. Sharing the lenses through which I viewed both the context and the data allows readers to consider my particular rendering of reality as grounded in the empirical world of this study (Bogdan & Biklen, 1998).

I invite readers to consider the interpretations I made within the context of this study as I did not intend to describe fully the world or even the case. Instead, I worked to make sense of my observations by watching as closely as I could and by thinking as deeply as I could. Even though this report may have reflected the subjectivity inherent in qualitative research, I believe it made the most sense representing the complexities of the case (Stake, 1995).

Teacher Lens

As a veteran teacher, I brought to the study my own ideas, opinions, and beliefs about reading, reading instruction, and the pedagogical practices I believed were most effective for increasing learning and deepening understanding. It was impossible for me to engage in this research without recognizing the influence these beliefs and views had

on me—from my choices of instructional methods, to my interactions with the middle level preservice teachers enrolled in the content area literacy course.

During my long career as a middle level English language arts (ELA) teacher, I developed strong beliefs about constructivism as a powerful determinant of student learning. Choice and time for reading became powerful tools in my reading/writing workshop classroom. When I began this study, I had to remember that even though these beliefs were powerful to me as an English language arts teacher, they were not necessarily the beliefs espoused in all disciplines. Knowing the middle level preservice teachers represented four core disciplines and wanting them to think about literacy practices within their own disciplines meant I could not impose my own beliefs about literacy on them. Instead, I needed to provide time and opportunities for them to explore their own beliefs about content area and disciplinary literacy.

Teacher-Educator Lens

During the study, it became necessary for me to continually evaluate my position as researcher and writer within the context of being the instructor of the course. I recognized the political realities of power existing within a university classroom, and how the participants and I were not only living the reality of participant and researcher, but also the reality of student and instructor. There was always the possibility that students responded in certain ways based on their perceptions of what they thought I wanted to see and hear from them. This became evident in the audiotape transcriptions and my research journal. In a small group discussion of a reading assignment, several students responded:

- I don't know what to say now that I'm being recorded.

- This is probably a stupid question.
- Is this what you want?
- I'm not trying to be disrespectful.

In an effort to combat this perception, I indicated in the syllabus and discussed with the students in the first class meeting how my research had no effects on their grades in the course. However, the reality of the context dictated that I would use the documents and artifacts I collected as data for both determining their grades as well as informing my analysis and subsequent findings in the study.

I had to remain cognizant of seeing in the data what the students truly indicated about their disciplinary literacy beliefs without using the data to reflect what I wanted them to learn as a result of being in the course. It was imperative for me to try, as best as I could, to keep the teacher-educator and qualitative researcher lenses separate.

Limitations

Two main issues limited this study. The first is the relatively short amount of time these preservice middle level teachers spent in the study exploring the complex issues of naming beliefs about reading and literacy and defining effective instructional practices. Because the state requirement for initial secondary teacher certification includes one content literacy course, undergraduate middle level students have fifteen class meetings in which to learn facets of literacy, student learning, and effective instructional practices. Since becoming the most effective educator one can be is actually a career-long process, the thinking about beliefs and practices which these preservice teachers did over fifteen weeks was more limited than if they had had more time for learning and reflecting.

Even though this study ended at the conclusion of the semester, I do not believe it indicates these students stopped learning and growing as professional educators. I can only assume that if these preservice teachers decide to continue in the Middle Level Education program in hopes of earning both their university degrees and teacher certifications, their knowledge and understanding about reading, student learning, disciplinary literacy, and instructional practices will grow. Indeed, defining beliefs about literacy and student learning while developing effective instructional practices across disciplines may become frameworks for these students throughout their future careers as teachers of young adolescents.

The second limitation of this study was the number of students in the case group. My original concept for the study was to include all students enrolled in the course by assigning each student to one of four disciplinary groups, based on each student's major area of academic concentration. While the use of multiple case study analysis may have added to the trustworthiness of the study, I chose instead to look deeply at the concepts of beliefs and instructional practices. Being under the time constraints of teaching the course content while conducting research made it more feasible to choose a single student to represent each of the four core disciplines. Additionally, having four students in the case group created a manageable amount of data.

However, this study did take place in an actual undergraduate course where all students were expected to meet the requirements set forth in the syllabus. Thus, I collected and used data from students outside the case group as I planned instruction and created learning invitations and engagements. Members of the case group collaborated not only with each other but also with all students in the course. Thus, in my field notes,

I recorded observations and comments gleaned from informal conversations with students both inside and outside the case group.

Conclusion

The purpose of this study was to reveal the effects of a required content area literacy course, foregrounded in disciplinary literacy, on the beliefs, attitudes, and predicted practices of middle level preservice teachers. It was designed to provide rigorous and systematic study of the phenomenon within the context of the one-semester university course. The use of case study told the stories of four students enrolled in the course, each student representing one of the four core disciplines: English language arts, social studies, science, and mathematics.

Chapter Four: FINDINGS: BELIEFS OF THE CASE GROUP

I did not begin this study with a preconceived idea of teaching a group of eighteen university middle level education students to believe exactly what I believed about both the process and the instruction of reading in content areas and disciplines. Instead, I first wanted to establish a constructivist-based learning environment within the university classroom of the required content area literacy course. I believed this classroom ethos would foster and nurture the university students as preservice teachers—nascent educators beginning to explore and name their own beliefs about reading and reading instruction based on their new learning from the course content about literacy practices and strategies within and across disciplines.

Knowing each student brought a predetermined set of beliefs and attitudes stemming from childhood about reading, learning, and schooling into the university classroom, I wanted to see what effect, if any, the required content area literacy course had on their beliefs. In particular, I wanted to see what I would come to understand about these students and their beliefs that might offer insight into the three questions framing the study:

- How do preservice middle level teachers enrolled in a required content area literacy course initially describe their past reading experiences and their beliefs and attitudes about reading?

- What are the effects of a required content area literacy course foregrounded in disciplinary literacy on preservice middle level teachers' beliefs and attitudes about reading and literacy strategies instruction in content area classes?
- How do middle level preservice teachers' beliefs and attitudes about reading and disciplinary literacy affect their predictions of how they will integrate reading and literacy strategies into their future instructional practices?

By using constant comparative analysis (Lincoln & Guba, 1985), I identified five belief statements that emerged from each of the three phases of data collection: initial beliefs about reading; developing beliefs about content area/disciplinary literacy; and, end-of-course beliefs about literacy, learning, and predicted instructional practices.

I constructed the data samples which I shared in this chapter from the data analyzed across data sources in the case group data. Data sources included observations, documents, artifacts, formal products, and recorded conversations and interviews. My use of three types of triangulation—data source, investigator, and methodological—strengthened the credibility and trustworthiness of these belief statements in each phase. However, it is important to note that while these belief statements reflect my analysis of the case group data, the beliefs did not develop in a linear method as implied by the chronological numbering of the statements nor were they quantifiable across each member of the case group.

Initial Beliefs about Reading

Analysis of the data sources revealed five overarching beliefs the members of the case group initially held about reading during the first four content area literacy class meetings (see Table 4.1).

Table 4.1

Initial Beliefs about Reading

1. Reading awareness and confidence is a process that begins in early childhood and is reinforced through interaction with caring, supportive adult mentors.
2. Reading must be an enjoyable experience if it is to have value.
3. Reading is a linear process, beginning with naming letters and identifying sounds, and ending with reading words, sentences, and paragraphs.
4. Reading in-school and out-of-school are dissimilar experiences.
5. Reading in school helps students learn basic skills in content areas.

It was important for me to gather initial information during the first class meeting from the university students about their beliefs. Each student completed an informal questionnaire which included open-ended questions about reading, writing, content area literacy, disciplinary literacy, and instructional practice. During the second class meeting, students listened to my read-aloud of a biographical sketch about children's author, Margaret Wise Brown. After the read-aloud, students worked in collaborative small groups to create lists of defining features of this genre of writing. Following a lively whole-group discussion of their thinking, the students explored the idea of how reading and/or writing biography or autobiography can provide a pathway for discovering personally held beliefs of the individual who is subject of the text. The students then were given the opportunity to write their own literacy autobiographies in which they were to think about, explore, and share their beliefs about reading and writing. This phase of data collection ended with all students thinking back to their favorite reading experiences and describing, through words and images, the circumstances that made this an enjoyable event in their lives.

1. Reading awareness and confidence is a process that begins in early childhood and is reinforced through interaction with caring, supportive adult mentors.

Frank Smith (2006) wrote, “If children can’t read well enough to learn to read by reading, then someone else has to do their reading for them” (p. 13). The students in the case group innately recognized this reality as they recalled beginning their journeys of learning to read in their literacy autobiographies. They wrote of wonderful childhood memories that included books, parents, and bedtime rituals. As all of the students in the group shared these memories with each other, I observed smiles and spontaneous comments such as, “I remember that book,” and “My mom read that book to me too” (Field notes, September 5/12, 2013).

One example of a student remembering such an early reading experience occurred when Lauren wrote her literacy autobiography. Not only did she write about her personal experiences as a young child with reading, but she also reflected on those experiences and expressed her beliefs about their significance by writing:

- Looking back, my mom, dad, and extended family always read me stories before I went to bed. I had plenty of touch and feel picture books as well as the books that would speak aloud to me.
- At home, I would listen to my parents read me bedtime stories and look at the pictures that went accordingly with what they were saying. At preschool, there would be similar activities occurring.
- How a child is raised has a large effect on whether or not that child is going to begin grasping reading and writing. Childhood activities such as reading

bedtime stories and practicing the alphabet are just two of several ways to foster the development of that child in the areas of reading and writing.

- I believe it's essential for young children to experience positive experiences and influences when it comes to reading and writing. My parents were definitely the most positive influence on me as both a reader and a writer. They completely fostered my development in those subjects as well as provided me with resources to continue to excel in both subjects. Attending a pre-school and grade school with teachers who also cared about the success of their students was also an incredibly important part of how I learned to read and write. When the teachers are genuinely concerned about the well-being of their students and wish to see them do their best, it is one of the most positive influences there could be. (excerpts from Lauren's *Literacy Autobiography*, pp. 1-2, September 5, 2013)

Lauren used her personal, positive experiences with early reading as the foundation for her self-confidence as an adult reader. She recognized the importance of early literacy engagements for young children as a necessary precursor for later success in school. She also recognized the significance of adults as supportive reading role models, both at home and in school.

Sharing her recollections, Megan provided a second example of a student remembering early childhood reading experiences but with both positive and negative emotional responses. Megan fondly recalled early reading experiences connected with her home literacies, but her thinking about reading changed when school literacies began to frustrate her. She wrote of these experiences and shared them with the class:

- I can remember several different books that my mother read aloud to my twin brother and me before bedtime. I also remember Saturday morning trips to the public library and getting to sit in the story-telling room and have picture books read to me.
- To me, knowing how to comprehend words written down was a foreign concept.
- As I look back I can remember struggling to become engaged in the text or story of a book. It took me weeks to get through only a couple of chapters while the rest of my classmates were reading quickly. I became increasingly frustrated that I somehow was not achieving as much as my peers.
- Never having as many points as my friends made me feel inferior and like I would not ever be able to catch up. I distinctly remember reading books that I enjoyed but having the element of competition between students and other language arts classes was not as encouraging to me as my teacher had hoped.
- I wish that when I was in elementary school and struggling for confidence in my ability to read someone would have constantly reminded me that it takes practice. (excerpts from Megan’s *Literacy Autobiography*, pp. 1-3, September 5, 2013)

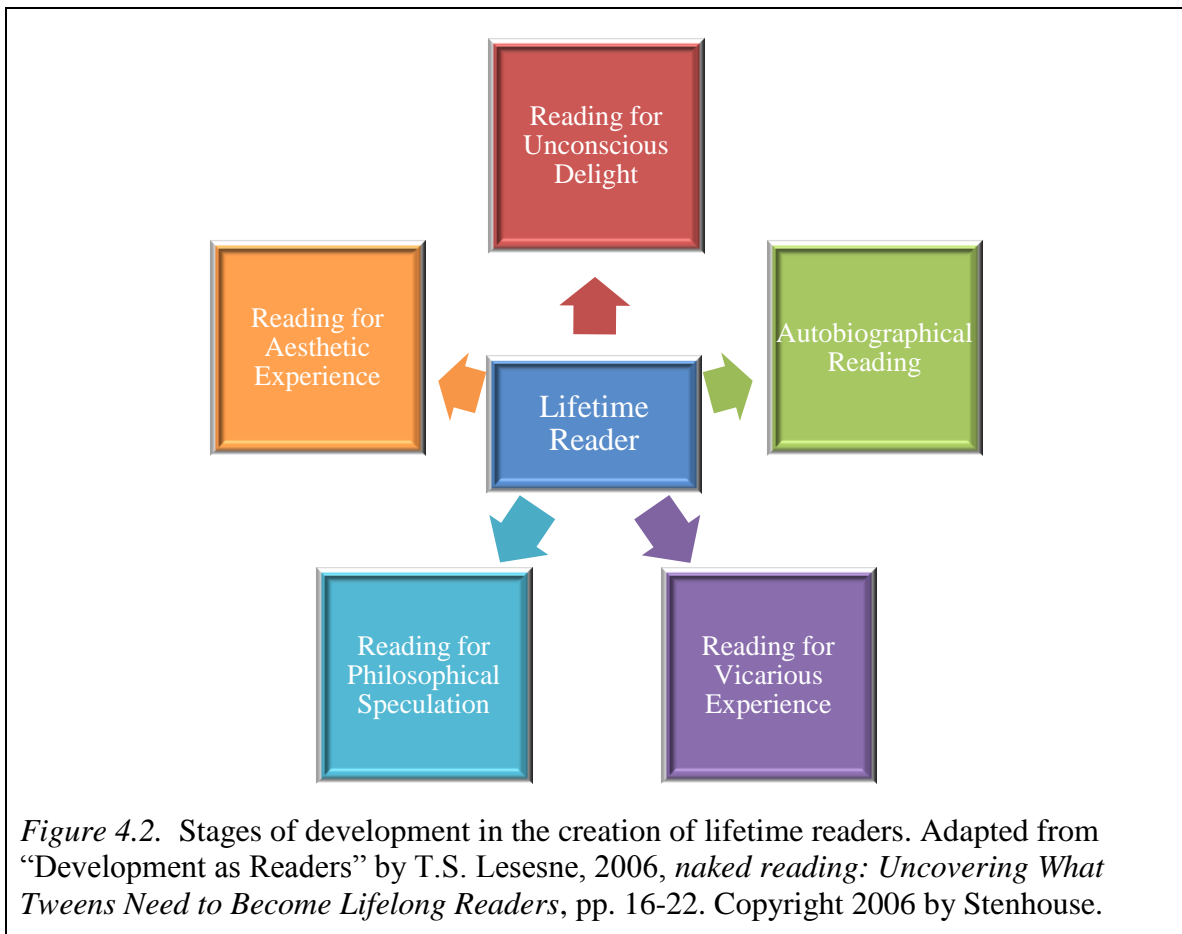
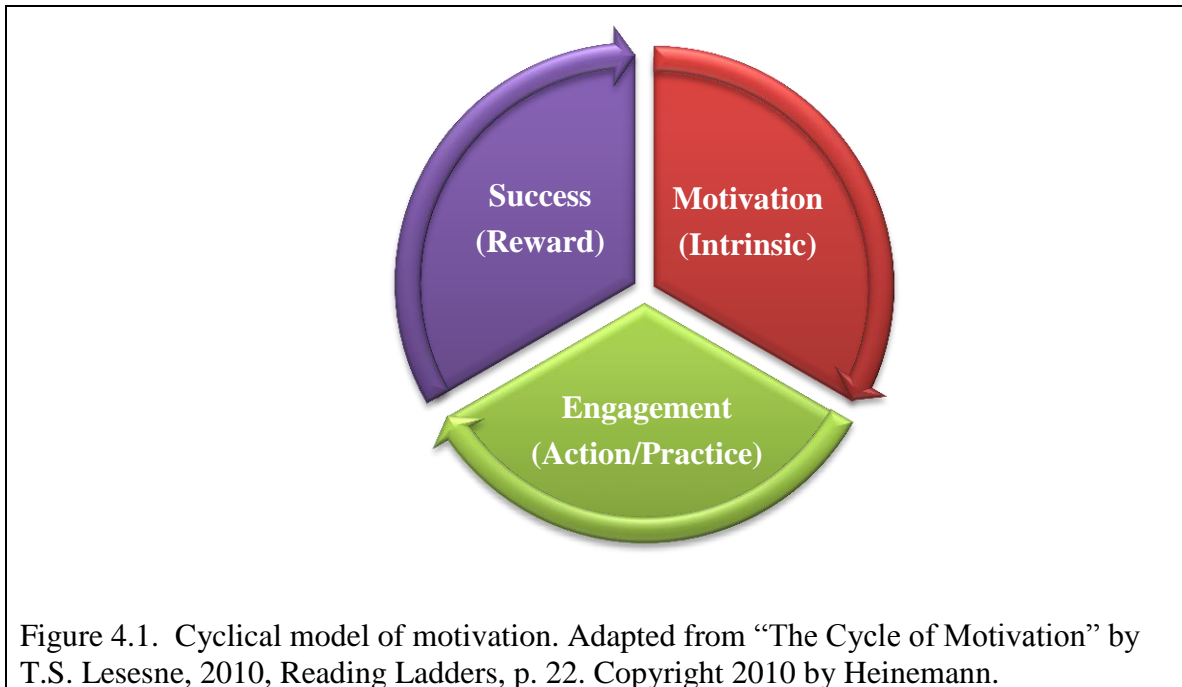
As Daisey (2009) noted, “The intent of literacy histories is to help future teachers change negative or limited perceptions of reading” (p. 169). For Megan, writing her literacy history provided a way for her to understand herself better and to confront her prior assumptions about reading. It helped her to be open to new ideas about literacy, reading, and the teaching of strategies for reading social studies’ texts. In the final

sentence of her autobiography, Megan wrote, “When I have my own students in the future I plan to focus largely on how to encourage them to become better readers and writers” (p. 4).

2. Reading must be an enjoyable experience if it is to have value.

Readers who enjoy reading are motivated to read because of their interest in it. Other readers are motivated by their dedication because they believe reading is important. Yet other readers are motivated by their confidence because they believe they will be successful at reading (Cambria & Guthrie, 2010). As Lesesne (2010) wrote, “Motivation is the key element in the success of any endeavor” (p. 21). The values, beliefs, and behaviors that surround reading become motivation for readers. Real motivation is intrinsic, coming from *within* readers, and enjoyment of the reading experience itself becomes the reader’s reward. Success fuels motivation, setting in motion the development of a lifetime reader (Cambria & Guthrie, 2010; Lesesne, 2010). Figure 4.1. illustrates the cycle of motivation.

This development into a lifetime reader proceeds through various stages (Lesesne, 2006) which include *unconscious delight, reading autobiographically, reading for vicarious experiences, reading for philosophical speculation, and reading for aesthetic experience* (see Figure 4.2.). To serve as examples of the stages the members of the case group were in as they remembered their favorite reading experiences, I included examples from their writings and drawings. In each of the examples, I included the students’ words and sketches as they described their favorite remembered reading experiences.



As readers, we all want to meet characters at some time in our reading lives who share similar characteristics with us. When readers meet such characters, they are reading autobiographically. Josh described how he enjoyed reading autobiographies (especially those written by football players) for the important life lessons the authors shared. He told of how he felt “intrigued” when reading these stories, and how he was eager to read “at home, on campus, wherever I want to.” Josh shared his purpose for reading one particular autobiography by writing, “I love football and I actually wanted to read his [the player’s] story of redemption.” He also gave a glimpse into his metacognitive thinking as he shared, “The most important thing about my development as a reader is my appreciation for authors. I like to find out more about people’s thoughts and the way they feel” (*My Literacy Autobiography*, September 26, 2013). Josh and his favorite character shared common passions for the game of football and reflections about life-lessons. These passions motivated Josh to read, and he valued reading as an enjoyable experience.

As she described her favorite reading experience, the real world dropped away for Lauren, and she experienced the unconscious delight of becoming lost in the world of Harry Potter (series by J.K. Rowling). Reading those books made her feel “happy and relaxed,” and she vividly remembered the experience “because it was so relaxing and enjoyable.” Lauren believed it was important to “find out what type of reading and genre you enjoy the most” (*My Literacy Autobiography*, September 12, 2013). Just as reading professionals promote the importance of finding books that speak to readers, Lauren observed, “It’s important to appeal to students’ interests because they will enjoy reading that much more.”

Megan also experienced the unconscious delight of reading when she was magically transported to another place and time by a book. To Megan, the key to valuing reading as an enjoyable experience was in the book selection. She wrote, “Being forced or bribed into reading more books wasn’t effective for me. When I picked up books on my own, I enjoyed them.” She continued her reflective thinking about reading as she wrote, “The most important thing about my current belief about reading is reading is an individual thing, and inspiring reading rather than forcing it will be more effective” (*My Literacy Autobiography*, September 26, 2013). Lesesne (2006) explained how readers “enter these worlds of books, become lost in the journeys of the characters, and emerge at the end changed in some way” (p. 18). For Megan, the worlds she wanted to enter were in books that she selected. As an example, she reminisced about reading a book when she was at the beach in the summer with her friends. As she wrote and sketched her *Remembering Reading* response (September 12, 2013), she remembered feeling “peaceful, relaxed, and free,” and of reading this particular book because “I enjoy escaping into a novel” (see Appendix D).

Kayla’s aesthetic experience reading the memory books her mom made to hold family memories flooded her writing and sketching (*Remembering Reading*, September 12, 2013). She wrote of trips to the family lake house and how “each summer my mom would create a little book about all the things we did.” She told how “each summer I would read the old ones and end with the newest addition; it was always so much fun!” Her sketch showed the place where she “would read these books on the swing under the huge tree in the evening. There was always a beautiful sunset and I think that is what made me love that spot.” Having this aesthetic experience, reading for the sheer beauty

and pleasure that reading can bring, evoked feelings of “warmth and happiness” for Kayla, as well as reminding her “how blessed I have been and how much my parents worked for me to have the wonderful life I have had.”

3. Reading is a linear process, beginning with naming letters and identifying sounds, and ending with reading words, sentences, and paragraphs.
4. Reading in-school and out-of-school are dissimilar experiences.
5. Reading in school helps students learn basic skills in content areas.

I grouped these three initial beliefs about reading and disciplinary literacy together because I believed the members of the case group connected them in their conversations and written responses. After each student shared positive early childhood and favorite reading experiences during the first few class meetings, their talk about reading took quite a negative turn when I asked them about past school reading experiences. Their written and oral responses reflected the observations about secondary reading made by Daniels and Zemelman (2009/2014):

There are two main problems with reading in secondary subject fields: students are reading the wrong stuff and they don't understand what they read. Students consume a drastically unbalanced and unhealthy reading diet, with negative side effects like...ignorance of vital information and negative attitudes toward reading. They read too many textbooks and not enough “real” books and articles... There are specific and documented mental processes that effective readers use, but these thinking skills are not being consistently taught or used in middle and high school courses. (p. 21)

When I asked all students to create their own definitions for reading, responses in the written documents of the case group included:

- Kayla...the pronouncing of letters in which they form words that lead into sentences. It's a difficult process at first...When I started school, I learned to read by taking easy words, sounding each letter out, and then putting all the sounds together. I would do that for each word in a sentence, then put all the words together. This was a long progression...
- Lauren: It's a complicated process of deriving the meaning of words...
- Josh: The most memorable moment of learning to read was while doing "Hooked on Phonics."
- Megan: Taking a set of words or phrases and applying your own ability to comprehend to make something useful out of the text.

As classroom talk moved from sweet memories of sharing bedtime stories with parents to negative memories of the drudgery of in-school reading, I noted in my research journal how the affective nature of the classroom changed as their smiles turned into scowls and frowns (Journal entry, September 12, 2013). For the members of the case group, memories of past reading experiences changed from enjoyable and pleasant into tedious and hard. They wrote and talked about their perceived differences between in-school and out-of-school reading experiences.

While Kayla could make connections with the books her mom made about their family in her out-of-school reading, she wrote of in-school reading, "I feel like I have a hard time reading other books because I have nothing related to any of the characters" (*Remembering Reading*, question #7). She equated in-school reading with "boring

textbooks” and admitted that reading was “one thing I wish I was interested in” (*Remembering Reading*, question 1).

In a second example, Megan recalled her enjoyment of reading in school during Sustained Silent Reading (SSR) time because it mimicked her out-of-school experiences of having a length of time to read a book that she selected for herself. However, in her response to most in-school reading experiences, she wrote, “In school, I didn’t enjoy being forced to read. I like to read but I don’t enjoy being forced to read so for many years I sort of boycotted reading” (excerpts from *What Do You Think?*, August 22, 2013). She further elaborated, “In school it seemed like all we did in English classes was read novels and respond to them with in-class essays or by writing book reports on them. We read classic novels...Being forced to read these at a fast pace made me dread the start of a new novel” (excerpts from *My Literacy Autobiography*, September 5, 2013). For Megan, the text selections, pacing, and competition she ascribed to her in-school reading experiences did nothing to foster a positive attitude toward school reading.

During a small group collaborative conversation about their shared reading of an article, the talk among the students also turned to their perceived differences between in-school and out-of-school reading and literacies. Kayla was in this group, along with two of her classmates who were not members of the case group.

Michael: I thought it was really...cool when she was talking about integrating... (pauses)

Kayla: Yeh, oh yeh.

Michael: what students read and write outside of the classroom into the classroom.

Sarah: inside, yeh.

Michael: ‘Cause most of the stuff you learn in middle school is, um, boring.

[Group laughter]

Michael: I think students could learn a lot, you know, ‘cause there’s lots to learn; you know like people downplay pop culture but it’s real; it’s awesome.

Kayla: Yeh, uh-huh.

Sarah: I definitely think that that was like the most important thing so we can even write that now; how do we write that, ummmm.

[many ums and ahs while they were thinking about how to phrase what they wanted to write as the group response to their shared reading of a professional article]

Sarah: The good thing about youth in the middle is that they, I guess like they work better...

Kayla: when they’re outside school...

Michael: when they...

Sarah: when the educational material is relevant.

Michael: Perfect, yeah.

Kayla: That works.

Sarah: Oh, they succeed more. (audiotape of small group, September 5, 2013)

They continued their conversation about reading in school and wrote as their concluding statement, “Students working together is effective if teachers encourage them for a

deeper conceptual understanding of content and make real world connections.” (Kayla, Sarah, Michael—audiotape and written response, September 5, 2013)

When I asked the students for their initial thoughts about the significance of reading and disciplinary literacy in school, initial responses in their written documents focused on pragmatic beliefs. Lauren responded, “If they aren’t reading, they will have a harder time writing.” In her response to what it would take for someone to be considered literate in English Language Arts, Lauren wrote, “They must be able to comprehend, how to read and write at a middle school level. Elementary words should no longer be used and proper uses of most (not all) grammar and spelling is expected.” (excerpts from *What Do You Think?*, August 22, 2013).

As other examples of initial pragmatic beliefs about reading and disciplinary literacy, Josh believed science teachers should “assign reports to keep the basic skills intact.” For Josh, students demonstrated literacy in science “if they can speak on the knowledge of science as well as write scientific reports.” In her thinking about math, Kayla wrote, “The role of reading in my content area won’t get a student very far. It provides the basic understanding so the student will have some idea of what is being taught.” She further described the role of reading in math as “...reading math problems,” and having students “use the reading instruction for following what is expected on assignments.” For Megan, literate students in social studies would “be able to read a text or work and be able to understand enough about the concept to repeat it if needed. They don’t have to understand everything fully, but the majority.” Considering the significance of reading in social studies, Megan responded, “Reading is crucial and one

of the key elements in all middle school classrooms. Since I hope to teach social studies, reading will be essential.” (excerpts from *What Do You Think?*, August 22, 2013).

At no point during the initial phase of data collection did I find any of the students responding in ways to suggest they believed reading in school was necessary for deepening students’ understanding of the conceptual knowledge embodied in each discipline. On September 12, 2013, I wrote in my research memo:

I think that even though most of these students think of themselves as readers, they tend not to think of reading in the classroom as an enjoyable experience. It’s sad to think that these preservice teachers don’t enter this course thinking about how much they can help their middle school students learn to love the subjects they’re teaching by giving them interesting, engaging texts to read. I hope their beliefs will begin to change as they learn more about reading in this course. (p. 2)

Developing Beliefs about Content Area/Disciplinary Literacies

The second phase of my data collection took place as the students became learners of research-based effective literacy strategies for improving secondary students’ content-area reading. As I read through the documents and products of the students in the case group, I identified fourteen possible patterns that I collapsed into five patterns of beliefs based on my later analysis (See Table 4.2).

Table 4.2

Developing Beliefs about Content Area/Disciplinary Literacies

1. Middle level students learn best in student-centered classrooms.
2. Middle level students must have accessible texts in all content areas.
3. Middle level students must learn critical reading strategies for deepening their comprehension and understanding of conceptual knowledge in all content areas.
4. Teachers of middle level students must understand the process of reading.
5. Teachers of middle level students must teach specific disciplinary literacy strategies.

For approximately ten weeks, I immersed the students in the course in new learning about cognitive, content area, and disciplinary literacies as outlined in the semester plan (see Table 4.3). As they read, talked, studied, and practiced, they worked within the framework of the literacy workshop model of instruction I established for the course (see Appendix E). I recorded in my field notes (October 10, 2013) that the students were “coming alive, making connections between theory and practice, and beginning to envision themselves in their future classrooms.” I captured snippets of their conversations when they made comments to each other such as, “I loved making my text set,” “I want to use some of the books that you had in your text set,” “I like the idea of a Word Wall with important science vocabulary words,” and “I want to make my students feel comfortable and relaxed in my classroom” (Field Notes, September – November, 2013).

Table 4.3

Instructional Strategies for Improving and Deepening Reading Comprehension

Cognitive	Content-Area	Disciplinary
<ul style="list-style-type: none"> • Making connections • Generating questions • Visualizing • Making inferences • Determining important ideas • Summarizing and synthesizing • Monitoring comprehension <p>(Harvey & Goudvis, 2007; Keene & Zimmerman, 2007)</p>	<ul style="list-style-type: none"> • Adding and activating background knowledge • Critical content vocabulary • Guided reading • Questioning and discussion • Reinforcing and extending content knowledge • Independent reading <p>(McKenna & Robinson, 2014)</p>	<p>Science</p> <ul style="list-style-type: none"> • Vocabulary load • Assumed knowledge • Academic language • Visual information • Mentoring science readers
		<p>Social studies</p> <ul style="list-style-type: none"> • Conceptual vocabulary • Historical references • Historian perspectives • Visual information • Mentoring history readers
		<p>Mathematics</p> <ul style="list-style-type: none"> • Terminology • Multiple modes of presentation • Compacted prose • Reading mathematically • Mentoring mathematics readers
		<p>Literary Reading</p> <ul style="list-style-type: none"> • Indirect communications • A fictional lens • Writing conventions • Literacy terminology • Mentoring literary readers (Buehl, 2011)

1. Middle level students learn best in student-centered classrooms.

Members of the case group responded with a growing awareness of the importance of putting students' reading interests and abilities at the center of their instruction in order to create a student-centered classroom. This belief was evident in their reflective thinking about the content area text sets they individually conceptualized and created as alternatives to textbook reading. To select the variety of texts, both print and non-print, to include in their text sets, the students had to consider such concepts as text length, difficulty, and structure; text relevance and accessibility; text interest-level and age-appropriateness (Tovani, 2004)—all important concepts they acknowledged in both oral and written responses.

As one example, Kayla explained how students can have enjoyable reading experiences with various texts in a text set by writing:

- It allows the students to learn information in a fun way while not being lectured by a teacher.
- The concept of multiple texts also allows students to stay engaged by switching up the way information is being given to them; they can include movies, or music which everybody loves! (Text Set reflection, November 6, 2013).

Lauren provided a second example about the importance of having a student-centered classroom for learning in her written response to a professional article she read.

Her thoughts included:

- Middle graders thrive in active learning environments.
- Having the students engaged in what is going on positively affects the overall “success” of the student.
- By encouraging students to participate by creating an active learning environment they have a voice in the classroom, which is essential for positive development. (Reading and Thinking like a Teacher, September 5, 2013)

Agreeing in the belief about the importance of establishing classrooms where students are heard and make choices about their reading, Megan responded,

I think it is important for students to be able to voice what they think is interesting about a subject or what they would like to see more of. Allowing them to have a voice in my classroom is helpful for them but also for me as their teacher.

(Reading and Thinking like a Teacher, October 24, 2013)

Josh thought about how he could encourage students in science to become more strategic, proficient readers, and his response reflected his belief in a student-centered classroom. He wrote, “I will encourage my students to become more strategic and proficient by allowing them to read different articles, the textbook, and to have them engage in class discussions to help them with writing and reading.” (Admit Slip, November 21, 2013).

Through their study of literacy strategies to enhance middle level content area reading, the case group came to believe in the importance of establishing a student-centered classroom where not only were students’ voices recognized and heard but they also could make authentic, informed choices about their reading.

2. Middle level students must have accessible texts in all content areas.

As they began to recognize the wide range of typical middle level students' reading abilities and the readability levels of typically assigned content area textbooks, the students in the case group came to believe in the importance of providing accessible texts in all content areas. Within the context of the literacy course, they read and studied Tovani's (2004) concept of accessible texts for adolescents. Because of this, they understood that middle level students needed access to text:

that is interesting, well written, and appropriately matched to the level of the students,...comes in a variety of forms,...is of high interest,...often is found in contexts outside of school,...doesn't have a controlled vocabulary,...usually doesn't come out of a textbook,...is pleasant to the eye and interesting to read. (Tovani, 2004, p. 39).

As Megan considered the importance of providing texts that would help her future students access important conceptual knowledge, she responded:

After reading this chapter I realize that there is way more to texts and books that are present in classrooms. I think textbooks are far too difficult for students and assigning books to kids that are not appropriate for their reading levels is setting them up to fail. (excerpt from *What Do You Think?*, October 24, 2013)

Kayla saw the importance of creating text sets as one way to provide accessible texts for students. In her written reflection (November 6, 2013), she observed:

Within a text set, I know the importance of incorporating multiple texts. This means to include all different types of books at all different reading levels. This makes sure that all students in the classroom can be part of the text set because we

know that every student will be on a different reading level. The concept of multiple texts also allows students to stay engaged by switching up the way information is being given to them.

In Kayla's earlier reflective thinking on an admit slip (October 3, 2014), she explained not only how she believed "using the assigned textbook is important to a certain degree" but also how "other books should be used as well to further the information provided in the textbook."

Josh and Lauren also responded in written documents of the importance of providing students with accessible texts. While Josh believed it was very important for students to read their assigned textbooks to "get an understanding of the content," he also believed it was important to incorporate supplemental texts "to assist the students with improving comprehension and knowledge of the content" (Admit Slip, October 3, 2013). After Lauren read a journal article about blending multiple genres of texts into a theme-based unit of study, she expressed her belief that this "encourages a variety of activities and assessment tools to meet the needs of students with diverse ethnic and educational backgrounds and abilities" (Reading and Thinking like a Teacher, October 10, 2013).

Through my analysis of the data, I believe the students in the case group shared a belief in the importance of providing a variety of accessible texts for middle level students as a strategy for improving content area reading proficiency. I found their close reading and study of Tovani's (2004) views of providing students with accessible texts through text sets helped shape this belief. I recorded in my field notes on October 10, 2013, how supportive the entire class was during a whole-group discussion of Tovani's (2004) position statement on providing students with accessible texts:

My intention is to give students something to read that is worthy of their time, something that they actually have the potential to understand—and maybe even finding a piece of text that will turn kids on to the content. (p. 40)

3. Middle level students must learn critical reading strategies for deepening their comprehension and understanding of conceptual knowledge in all content areas.

One focus lesson I planned for the students addressed the questions Keene (2008) posed in her text, *To Understand: New Horizons in Reading Comprehension*: “When we teach comprehension strategies, what do we hope they lead to in children’s thinking? What do we expect to see and hear when children understand? What indicators and outcomes are we likely to observe? What constitutes deep understanding?” (p. 6). My objective for this lesson was to provide students with chunks of time in class for reading, thinking, and collaborating about these questions while developing their own “deep understandings” of what student understanding of critical conceptual knowledge really meant. Analysis of the data provided a window for me to see into their developing thinking about literacy strategies, student comprehension, and deep understanding.

A scientific thinker himself, Josh frequently mentioned the importance of teaching students how to think critically in science class in order to deepen their understanding of scientific knowledge. The intensity of his passion for helping his future students develop an authentic interest in science was most evident during my interview with him. I recorded in my field notes (December 12, 2013) that Josh appeared to be relaxed and eager to talk about science as our interview began. I wrote how he “had a big smile on his face and leaned a bit forward in his chair.”

Janie: When you think about middle school students as readers in science, what do you believe now that you’ve been in this course?

Josh: [leaning forward with his hands on his knees] Reading in science to me, I feel like it is very important that they understand the context of what they're learning...I believe, it is higher in difficulty of comprehending so I have to do an even harder job of helping my students grasp the content I'm trying to teach them. I'm glad I had this course because it's awful that I couldn't envision myself doing a lot of the things we talked about, especially doing the text sets. I never heard of that until I took this class. And I can see myself using that often, actually seeing it especially when we get on the harder things in class like forces, things dealing with velocity, and things of that nature... But if I can get them to understand the basics and the literacy part of it, as far as truly comprehending what they're reading, that's how they can be successful. Because if they understand, hey, you know force equals mass over acceleration, and not just remembering, but really *understanding* [emphasis on word] how mass and acceleration are inversely proportional to make force, then I think that's truly amazing that I could teach them how to *truly understand* [emphasis on words] it and not just make it something they have to remember from one week.

Janie: Like that light bulb moment?

Josh: [laughing] – Yeah, so they truly understand it.

Janie: You know, you can comprehend without really understanding. You want your students to deeply understand what you are teaching them.

Josh: Exactly! [smiling] (audiotaped interview with Josh, December 12, 2013)

Josh continued his way of thinking in a written self-reflection of a science lesson plan he created by responding, “Purposeful planning of reading and writing strategies will help your students tremendously because it will prepare them to think abstractly and critically.” He also noted how including instruction of critical reading strategies in science class would benefit his future students because “when it comes time for them to do the same in other classes they will be well equipped to think critically and determine the content of which they are learning” (*Strategy Lesson Plan*, November 21, 2013).

The other members of the case group echoed Josh’s beliefs in their own written responses to their classroom learning. Megan stated, “A part of encouraging content literacy is giving students strategies that...speak to the idea of empowering students and encouraging their ability to conquer content material” (Admit Slip, November 21, 2013). Lauren thought about the necessity of purposeful classroom instruction in critical content vocabulary. She believed such instruction was important “because it will assist the students in understanding the reading at a deeper level and once again form connections across subjects” (What Do You Think?, October 24, 2013). Kayla’s thinking about students and their conceptual understandings of content knowledge led her to respond, “Students should be able to realize what they can and cannot understand” (What Do You Think?, October 24, 2013). In coming to this belief, Kayla connected helping middle

level students become critical thinkers and readers by metacognitively monitoring their comprehension of text.

As I read Kayla's concluding written response about understanding, I found that she insightfully seemed to answer Keene's (2008) questions. In her summative response, Kayla wrote:

To understand...means you're willing to work hard to understand an idea, that even though you don't get it at first, you want to know with all your heart, so you talk to other people and read more and reread, and you ask people whose wisdom you trust and you keep thinking and thinking until you realize that you do understand. (p. 243)

4. Teachers of middle level students should understand the process of reading.

After writing their initial beliefs about the process of reading as linear and phonics-based during phase one of the study, all students in the course spent time reading and studying various professional texts about the process of reading in secondary schools. McKenna and Robinson (2014/2009), authors of their textbook, defined reading as "the reconstruction in the mind of meaning encoded in print" (p. 25). The authors further wrote specifically of reading in the content areas as they observed:

First, it is not the content specialist's role to teach the process...but to facilitate students' attempts to use that process to learn through written materials. Second, the best way to achieve this facilitation is to focus on two factors in the reading process that are most easily influenced by the teacher who assigns the materials: (1) the prior knowledge of the students and (2) the purposes for which the students will read. (p. 25)

In the majority of the written documents the members of the case group produced during phase two of the study, they frequently wrote of their thinking about the process of reading in middle level classrooms and what their role in that process might be. When I asked the students to respond on an Admit Slip (October 24, 2013) to a question about why they thought they needed to know in order to understand the process of reading, I got a variety of responses. Kayla seemed to be thinking about her future professional self as a teacher when she wrote, “Without knowing how to do something, how could you teach others? I believe I need to fully understand the ‘language’ of reading” (October 24, 2013). Megan thought of the struggling readers she would meet in her future classroom as she responded, “In order to instruct and help a struggling reader it helps to know the processes that people go through when they are trying to make sense of a text” (October 24, 2013). Lauren definitively wrote:

You can’t effectively teach reading if you do not understand the process of it (reading). By understanding the process of reading, I will be able to make sure I know how to teach it as well as knowing that my students understand it. (October 24, 2013)

One important concept for the students in the content literacy course was understanding the process of reading from an information-processing perspective. McKenna & Robinson (2014/2009) stated: “The purpose of informing the reader is the chief reason writers write in content subjects and the chief reason their writing is assigned to students” (p. 24). Once the students in the course read, thought about, and discussed reading in content areas from this perspective, they began to understand the significance of assessing students’ prior learning and establishing specific purposes for reading into

their thinking about the reading process. They came to understand how the process of reading for middle level students in content area classes was for meaning-making.

5. Teachers of middle level students should teach specific disciplinary literacy strategies.

One of my goals in this study was to foreground my classroom instruction in the thinking, strategies, and practices of disciplinary literacy, all within the framework of the required content area literacy course. Through my own study and research into disciplinary literacy (see Chapter 2), I had come to understand what researchers meant when they found that secondary students needed to be mentored by their teachers in how to read, write, and think in ways characteristic of discrete academic disciplines (Buehl, 2011). I wanted to share my knowledge and understanding of disciplinary literacy with the university students in order to explore their beliefs about what it meant to them for students to be considered literate in their disciplines. In the data I have included to illustrate the students' beliefs about disciplinary literacy, I added the responses of several students who were not in the case group. I felt their voices and perspectives were significant and needed to be heard by the readers of the study.

At the beginning of the study, I chose Kayla as a mathematical member of the case group because she tended to be skeptical about the idea of a required content area literacy course in the middle level degree program. I thought Kayla would challenge my thinking about mathematical literacy. She readily shared her belief that "...using reading and writing in math classes isn't as easy as it would be for an English class" (Virtual Mentor, September 19, 2013). Even though she expressed concern about her perceived belief of the difficulty in teaching critical vocabulary in mathematics, Kayla wrote in response to an assigned reading, "I do believe I will need to incorporate all the methods

that have been taught throughout this class.” She further noted, “I think that for math I will find articles on line that relate to what is being taught in my classroom to get them to have a better understanding of the critical vocabulary and allow them to be challenged” (September 26, 2013).

Audiotaped conversations of Kayla and three of her fellow mathematicians in the course also revealed their beliefs about mathematical literacy. Their responses about the role of literacy strategies in mathematics instruction included:

Nicole: I think with alterations to them they can be made for math. In math, reading is to better explain processes and rules. You have to pay attention to specifics.

Kathryn: I think if you look at the role of the strategies, like we read and write to learn more, then those ideas need to go in the math class.

Kayla: I think it would be great to have a literacy course for math because, like Nicole was saying, I felt like some of this stuff, like some of the strategies, I couldn't see myself using it in math at all. But sometimes it makes me think like what could I do to tweak it to put it to math. I felt like if you sat in math class, and I don't know if this makes sense, but like discussion—like even though you're not reading a book and stuff, you can work on a set of problems and then have a class discussion thinking about like, how do we do this and just talking it through, so I like different aspects like that.

(audiotaped conversation, December 12, 2013)

Adolescent reading advocate Kelly Gallagher (2004) emphasized the importance of reading instruction in secondary English language arts classes that engaged readers in focused re-readings and collaboration to construct deeper understandings of complex literacy works. Lauren, representing English language arts in the case group, responded in ways that reflected such thinking. She responded to her reading of a journal article by writing:

Middle graders need to generate and share their ideas about complex content area texts with others...it's essential that the students interact with one another...It's also essential that the teachers provides the students with the proper reading strategies and analytical skills for a fuller understanding. (September 5, 2013)

Lauren also thought about the importance of matching texts with her future young adolescents' reading interests in her belief that "by incorporating their interests it will help them in becoming more strategic and proficient readers" (November 21, 2013). Many of Lauren's written responses focused on students' understanding of text. In a written reflection on an assigned reading, she responded, "As my content area requires a lot of reading, it is going to be my main goal to make sure that students are understanding what they are reading and that I am fostering their development" (October 24, 2013). She planned to accomplish her goal by incorporating strategies for proficient reading of literacy texts into her instruction as she demonstrated with this example: "It's important to implement postreading strategies after an English lesson because there is so much covered in a lesson" (Exit Slip, November 14, 2013).

As the case group member who represented a history/social studies perspective, Megan noted how understanding critical historical vocabulary would help middle level

students “think of themselves as historians while studying historical content” (What Do You Think?, October 24, 2013). Her response showed how deeply Megan thought about the importance of disciplinary literacy in her future classroom. She later responded, “A part of encouraging content literacy is giving students strategies and activities that will make reading content material more enjoyable” (Admit Slip, November 21, 2013).

In an audiotaped interview with Megan, we talked about reading in history and the content literacy course. The following excerpt is from that interview:

Janie: When you think about reading like a historian, what do you think is important for middle school students to know about reading in social studies? What did you think this course was going to be about?

Megan: I thought there would be more of an emphasis on language arts because my little finite mind was like reading- uh, language arts [laughs]. I didn't really think about reading in social studies, but it's interesting because I'm taking an American history class, I just finished it, but she has us writing, all of our writing assignments, you have to be writing like a historian. You have to be able to read like a historian to write like a historian.

Janie: So what do you mean by “write like a historian”?

Megan: For me it meant, not just taking one specific event, one date, one battle and elaborating on it—why does this matter? How does this impact? So I think, reading in social studies classes, the content that you're reading, should be something that will provoke students

to think about *Why* [emphasized the word] the content you're reading matters and how it relates, instead of just knowing all these dates from the Civil War and spitting them back out on a test (December 12, 2013).

Once again, Megan expressed her understanding of disciplinary literacy through her talk of students being able to read and write like historians. She connected what she was studying in the content literacy course with what she was practicing in one of her content courses. Megan saw the efficacy of *teaching* content area literacy strategies in history/social studies classes because she *practiced* some of those same strategies in her own learning.

Josh, a former chemistry major before moving into middle level science education, embodied the characteristics of a scientist. He asked many questions, had a deep understanding of scientific knowledge, and used critical scientific vocabulary in his examples of disciplinary concepts. In his written review of a journal article about content area literacy, Josh noted how "...literacy is a huge part of science, especially in the middle school level, because they begin to read scientific articles in middle school" (September 19, 2013). In another written reflection about an assigned reading, Josh worked collaboratively with three other classmates. For his part of the reflection, Josh wrote, "Teachers should instruct with strategies based on sound scientific research" (Collaborative Writing-to-Learn, September 5, 2013). I found a third example of Josh's thinking about literacy practices in the science classroom in an audiotaped conversation we had on December 12, 2013. In that conversation, Josh said, "When I give an assignment or we're going over the textbook, science literacy is much different from the

other subjects. A word in science can mean something totally different from a word in English or social studies or math.” Josh acknowledged his belief that science teachers must provide strategy instruction for improving their students’ reading of science. His words indicated his passion for helping students gain access to scientific knowledge.

Analysis of the data I collected during Phase Two of the study led me to believe the university students were thinking deeply about reading, reading instruction, literacy strategies, and disciplinary literacy in their content areas. The excerpts from the data included in this section shows how their developing beliefs reflected their new learning. The university students studied what it meant for middle level students to learn in a disciplinary literate classroom as they themselves lived a literate classroom life within a literacy workshop model. I believe their personal experiences with reading in the content literacy course began to form an important basis for their attitudes about infusing reading activities into their future instruction (Bean, 1994).

End-of-Course Beliefs about Literacy, Learning, and Predicted Instructional Practices

The third phase of data collection focused on the responses within the end-of-course formal products created by the members of the case group. I used the constant comparative method of data analysis (Glaser & Strauss, 1967) to establish twelve tentative categories, and I later melded those categories into five statements of the case group’s beliefs about literacy, learning, and predicted future instructional practices (see Table 4.4).

Table 4.4

End-of-Course Beliefs about Literacy, Learning, and Predicted Instructional Practices

1. Teachers must create active, engaging classrooms that maximize student learning.
2. Teachers must incorporate a variety and range of texts and resources into instruction.
3. Teachers must incorporate a variety of literacy strategies into their instruction if students are to become better readers, writers, and thinkers in the content areas.
4. Teachers must plan for collaborative learning engagements and student sharing of thinking.
5. Teachers must read professional publications in order to grow as educators and incorporate new ideas into their instructional planning.

I strongly believed it was my role as the teacher-educator of the university students in the content area literacy course to offer methods and strategies of instruction to them that could potentially increase their future students' enjoyment of reading and deep understanding of critical content knowledge. My goal in designing and creating the course content was for the students to develop strong beliefs about literacy strategies and student learning—beliefs that would help them envision themselves as a “teacher who opened up a world of the mind to some students who had no one else to make them feel that they were capable of doing great things with test tubes, trumpets, trigonometry, or T.S. Eliot” (Fried, 1995, p. 18). The responses I share in these findings of the study reflect both the depth of the case group's reflective thinking and their envisioned possibilities for themselves as teachers and their future middle level students as learners.

1. Teachers must create active, engaging classrooms that maximize students learning.

Throughout the semester, the students in the course grew in their knowledge and understanding of the affective learning climate necessary in a classroom built upon the tenets of reading comprehension as a social constructivist process (see Appendix F). They lived and learned in a university classroom as active, engaged students of content area literacy. Analyzing the data from phase three led me to conclude that the university students assimilated the classroom instructional framework into the foundation for their beliefs about their predicted future practices and their visions of themselves as educators of middle level students.

During the last two weeks of the semester, each student was responsible for creating a final product entitled, *Who Am I as a Literacy Teacher?* The purpose for creating the ten-minute PowerPoint presentation was for use in a hypothetical job interview at a local middle school. In addition to creating the slides, students were required to script what they would say to the hypothetical principal, emphasizing their understanding of the importance of incorporating effective literacy practices in content areas and disciplines into instructional practices.

Kayla demonstrated her deep understanding of the importance of incorporating literacy strategies instruction into mathematics in each of her scripts. In Kayla's script for her first slide, she attributed her newly-found understanding of literacy to her participation in the content area literacy course as she wrote:

This semester I learned about many different ways to engage my future students in reading while challenging them at the same time. Keeping students engaged is one of the most important things I need to do as a teacher, because if they aren't

interested, then they will be less interested in paying attention or learning the subject matter. (p. 2)

She wrote of the value of using text sets, charts, maps, and graphic organizers for improving literacy in mathematics and helping students “better understand what’s going on...by allowing a different form of ‘reading’ which allows them to think differently” (p. 2).

Describing the type of science teacher he wanted to become, Josh wrote, “As a science and social studies teacher, I want to have class discussions and talk about the content and be interactive. I believe in an interactive classroom” (*Who Am I as a Literacy Teacher?*, pp. 2, 6). He listed examples of engagement tools, such as KWL charts, flow charts, graphic organizers, and discussions, for teaching content literacy and both furthering and deepening students’ comprehension in his two areas of academic concentration—science and social studies.

Lauren’s responses reflected her position in the case group as an English major by aligning her beliefs with research-based strategies for increasing student engagement with reading in English language arts. She wrote, “By providing students with interesting texts to accompany the material, it will have them more engaged in what they are learning and demonstrate to them that you are trying to relate this material to their likes and interests.” She also stated: “The implementation of text sets in the classroom is a strong plus when engaging middle level students in the material. It truly provides them with several different options to deepen their understanding of the material at hand” (pp. 2-3).

I believe my analysis of data I collected over the fifteen weeks of the semester demonstrated the growth and change in the students' thinking and beliefs about reading, literacy strategies, and classroom practice. My findings indicate having opportunities during the initial phase of the study to reflect on their own early awareness of and favorite experiences with reading led to a shift in thinking of the members of the case group during the developing phase of the study. They moved from a belief in reading controlled by teachers and textbooks into a belief of reading controlled by students and accessible texts.

Increasingly during the developing phase of the study, their thinking and beliefs about reading comprehension as a social constructivist process led them to an awareness of the necessity for establishing a student-centered classroom in all content areas. This awareness grew in the final phase of the study into a commitment from each member of the case group to establish their own future classrooms and instructional practices to reflect their new beliefs about literacy and learning. They envisioned their future classrooms as places “characterized by student-generated ideas, self-selection, creativity, interaction, critical thinking, and personal construction of meaning” (McLaughlin & Allen, 2009, p. 8).

They saw themselves as future middle level teachers who would encourage their young adolescent students to take ownership of their learning by providing them with purposeful, authentic literacy tasks that connected to the world beyond the classroom. They envisioned themselves implementing instructional practices designed to deepen their future students' understanding of content area knowledge through higher-order

thinking and substantive conversations and collaborations (Newmann & Wehlage, 1993).

I believe Megan's words best reflected the thinking of the case group:

Throughout the semester we have talked about how important it is to engage students in text and in the content areas that we as teachers are passionate about.

There are so many resources and strategies available to teachers to help invite students into the passion we have for the content we are teaching. Planning this social studies lesson was just a glimpse of what my life will look like this time next year and I am really looking forward to getting to invest in my students.

(written response to lesson plan, November 20, 2013)

2. Teachers must incorporate a variety and range of texts and resources into instruction.

Carter (1993) believed the contexts of teachers' life histories always framed their teaching decisions. Early in the semester, students in the course reminisced about favorite books and texts as they recalled picture books, bedtime books, and series books. Their awareness of the necessity for immersing their future middle level students in books and texts grew in phase two as they visited the children's room of the local public library and designed and created text sets. At the end of phase two, the members of the case group expressed a shared belief in the necessity of providing students with accessible texts in all content areas. Consequently, it came as no surprise to me when, during phase three, they stated a shared belief in incorporating a variety and range of texts and resources into their predicted future instructional practices.

Kayla enthusiastically supported the text set as a method for offering alternative texts to students. As she thought about her future teaching, she wrote, "One of the coolest things I thought we learned about were text sets. These text sets allow the

students to pick what... interests them.” She extended her thinking to include types of texts and resources such as informational books, videos, movies, online interactive engagements, and online articles. Kayla concluded, “All of these can help aid the student in learning and have a better understanding besides using the textbook, and I plan to use these in the classroom” (*Who Am I as a Literacy Teacher?*, December 5, 2013).

As a scientific thinker, Josh knew the importance of reading in science to keep abreast of current discoveries and advancements within the discipline. He saw himself as a reading role model, sharing his reading resources with his future students. Josh predicted:

With a variety of books available for the students, they will have an opportunity to grasp a deeper understanding of the content I will be teaching. I will not only use the textbook to help teach my students, I will use articles, novels, and informational texts to broaden the horizon of learning and show them that information can be accessed everywhere. If the students can see that they can pick up a newspaper or even read online articles, they will see that the information is at their disposal and I will encourage my students to stay up to date. (*Who Am I as a Literacy Teacher?*, December 5, 2013)

Always thinking metacognitively, Megan reflected through her writing on her own professional growth as a teacher along with the growth of her beliefs about providing a variety and range of texts and resources for middle level students. In her written thinking (December 12, 2003) about herself as a reader, Megan told of making return trips to the children’s section of the public library after having taken the earlier class field trip there to find resources for her text set. She wrote, “Each time I go I feel as

though I could spend hours there simple browsing.” Referring to the range of texts and resources offered at the public library, Megan observed, “Through this class I have come to realize the value and abundance of resources that are available to teachers.” I believe Megan’s self-recognized growth during the semester as a reader and a teacher of reading will frame her future instructional practices in social studies. I believe her newly discovered interest in texts and resources for young adolescents will spill over into her classroom decisions. In acknowledging her changing beliefs and attitudes about reading, Megan wrote:

Before this semester I wouldn’t have had a single clue of how to interest students in different texts. I have learned so much about the importance of picking texts that are relatable to middle level students. The way I read texts is different than at the start of the semester. I feel like I am slowly shifting into having an eye for suitable texts and actively seeking them out to better my instruction. (*Who Are You as a Reader?*, December 12, 2013)

Through analysis of the data, I found the members of the case group embraced a vision of themselves as middle level teachers who would know and understand how to foster student interest in content area/disciplinary reading. They believed in the importance of leading their future students to a more balanced diet of reading by selecting and providing a wide range of interesting, engaging texts, genres, and resources that reinforced and extended students’ content knowledge (Daniels & Zemelman, 2004/2014; McKenna & Robinson, 2009/2014).

3. Teachers must incorporate a variety of literacy strategies into their instruction if students are to become better readers, writers, and thinkers in the content areas.

Strategic readers in content area classes think about reading in ways that enhance their understanding and learning of disciplinary knowledge. Strategic readers not only have a purpose or goal for reading but also a plan of action that moves them forward. Teachers who know how to mentor students in becoming more strategic readers encourage what Tishman, Perkins, and Jay (1995) call a “strategic spirit.” They motivate students to become not just better readers but also readers who are thoughtful, critical, and independent (Harvey & Goudvis, 2007).

Throughout the semester, the members of the case group actively engaged in and studied cognitive, content-area, and disciplinary literacy strategies. In the initial phase of data analysis, I did not find any evidence of students’ recognition of or knowledge about strategy instruction for improving student learning. Instead, they thought of school reading as a phonics-based, linear process for maintaining basic skills. As their knowledge of purposes and methods for content area strategy instruction grew and deepened, so did their beliefs about the importance of incorporating strategy instruction into instructional practice.

All students wrote about their perspectives on literacy and learning as one of the final course products. In her written response, Lauren wrote:

A large chunk of my learning through this course revolves around supported reading techniques. It can be argued that by implementing effective methods of supported reading, students will gain a much better grasp of what it means to become better readers, writers, and thinkers. Through the many examples given by Allen, Tovani, and McKenna & Robinson, I have learned a plethora of options

that I will be able to implement into my future classroom in regards to supported reading. This is completely new learning for me as before I entered this class, I had never given much thought into what makes a “good” reader, writer, and thinker. (December 12, 2013)

In the same written response, Kayla seemed to finalize her feelings about literacy strategies instruction by writing, “Dealing with literacy in math content classes can be a real struggle for the teachers” (December 12, 2013). I believe that through her words, Kayla described her own struggle during the semester to reconcile her new learning about infusing literacy strategies into mathematics with her earlier beliefs. For fifteen weeks, I watched Kayla as she thought about, challenged, and came to recognize the role of literacy in the mathematics classroom. She stated her new belief in herself as a literacy practitioner in mathematics by writing:

Instructional strategies for reading and writing will help me a lot when I start doing lesson planning. I believe these strategies that I present in class will be very beneficial to each student. I do want to help each student in my classroom become a better reader in math. Math comes off to be a hard subject, but I believe if I present them with the right information then they will leave the class at the end of the semester loving it since they actually know how to “read” it. I believe my role for my future students will be very crucial and if I don’t do it correctly then I will not accomplish my job during that time. Literacy has become a huge part of my teacher career life, and without this class I wouldn’t have been able to realize that. (December 12, 2013)

Megan could see herself as a future teacher who understood the importance of incorporating strategy instruction into reading social studies content. I found her written response indicative of the effects on her beliefs of the literacy workshop model that framed the content literacy course. By learning in a university classroom that manifested constructivism (see Chapter 2), Megan participated in activities that supported “the authentic use of the processes and understandings implicit in reading behavior” (McLaughlin & Allen, 2009, p. 8). Megan learned the value of the strategies for improving reading comprehension and understanding by doing the strategies herself. She became a learner by being a participant. Megan wrote:

Reading strategies help students navigate. I can assign these strategies to my students because I have done them myself and I see how they greatly enhance the reading process. KWL Chart, Enter/Exit Slips, Key Points Strategy, Double-Entry Journal, ReQuest, Reading Guides, List-Group-Label, Knowledge Chart, Sketch to Stretch: this is a short list of the reading strategies that I think are most effective while reading, regardless of the content. I hope to be teaching history and I understand the importance of providing students with a way to record their thoughts, take notes, and hold their thinking especially while reading texts for a history class. Sometimes those texts can be confusing and honestly quite boring. I plan to use each of these strategies, and others, with texts that they fit best with. Having a “tool box” to pull from is important for teachers to make sure they are using strategies that are most appropriate. (*Who Am I as a Literacy Teacher?*, December 5, 2013)

The evidence in the data led me to believe the members of the case group understood the true nature and purpose of incorporating literacy strategies into instructional practice. They thought of the strategies as *tools*, “a means to an end—comprehension—not an end in themselves” (Keene & Zimmermann, 2007, p. 43). They expressed their belief in combining literacy strategies with purposefully chosen texts to create classroom environments in which students would grow as content area learners.

4. Teachers must plan for collaborative learning engagements and student sharing of thinking.

One unit of study within the course focused on planning for middle level students’ collaborative engagements and discussion. However, based on their predetermined beliefs about reading, the university students stubbornly clung to the idea of reading as a solitary behavior. They spoke of their worries and concerns about student behavior if they planned learning engagements that included student talk. I recorded examples of their comments in my research journal (October 31, 2013) which included “I’m just too afraid that things would get out of hand;” “What if they get too loud;” “How would you keep them all on task?” As a class, they were slow to embrace the constructivist view of reading as a social act through which meaning is constructed. In spite of their beliefs during phases one and two about collaborative learning, I found evidence of changes in their thinking about collaboration and discussion as instructional practices from their responses during phase three.

Josh recognized the importance of discussion in science classrooms by responding, “One way that we can assure our students that they are truly becoming better readers, writers, and thinkers is to have a writing-to-learn engagement and have the students participate in group discussions.” He also considered how the social act of

learning can be motivational for students when he noted that "...when we add in a classroom discussion and small-group work it makes things more interesting" (*My Perspectives on Literacy and Learning*, December 12, 2013).

Kayla believed collaborative engagements were beneficial for students in mathematics classes. She strongly believed in empowering students to make their own choices as evidenced in her response, "There are many ways to allow choice in the classroom, but I think in a math class this can become very useful and helpful when it comes to independent work time." After explaining how she would give future students a list of choices, she added, "I believe that the use of group work will allow them to choose how they want to go about completing the assignment" (*My Perspectives on Literacy and Learning*, December 12, 2013). Her beliefs about the value of discussion as an instructional practice were evidenced in her statement, "I believe talking about common text with another person is very beneficial!" (*Who Are You as a Reader?*, December 12, 2013).

As a preservice English language arts teacher, Lauren recognized the importance of collaboration between readers and responded, "It is definitely beneficial to discuss reading with another person because you hear their opinion and thoughts, which can open your mind up to new information that you would have never thought of yourself" (*Who Are You as a Reader?*, December 12, 2013). In her written response to student discussion as an instructional practice, Lauren filled her paper with comments and questions such as:

- True discussion is an efficient way of engaging the students in the classroom.
- Does a controversial topic improve the discussion?

- Collaborative reasoning provides a platform for critical reasoning based on text.
- Not all discussions have to be led by the teacher.
- Allowing students to take one step forward and the teachers take a step back = good. (November 14, 2013)

Fried (1995/2001) explained how working in small groups helped students learn from each other and address issues from several perspectives. He wrote, “When young people develop an awareness that teaching and learning are collaborative ventures, not individually isolated activities, they see their own work as part of a team effort and are more inclined to give their best” (p. 44). The findings of the study indicated how the members of the case group incorporated this thinking into their final beliefs about the importance of teachers planning for collaborative learning engagements and student sharing of thinking.

5. Teachers must read professional publications in order to grow as educators and incorporate new ideas into their instructional planning.

In the first two weeks of the semester, all students in the course studied what McKenna and Robinson (2009/2014) referred to as “seeing yourself as a teacher.” The authors pointed out that even though university students may never have taught, they had “watched others do it for literally thousands of hours” (p. 17). In a content area literacy course such as the one in this study, it became imperative for the undergraduate students to make the transition in their minds from *self-as-student* to *self-as-teacher* (see Figure 4.3.). They read professional texts, journal articles, and on-line resources within their various content areas and disciplines for each class meeting to facilitate this shift in

thinking. Using a model, the students created patterned poems entitled, “I Am a Teacher of Middle Level Students,” as a final product to synthesize their thinking. In her poem, Kayla wrote, “I want to be a great teacher who impacts students’ lives” (see Appendix G). Megan wrote, “I wonder about the impact I will have on future generations.”

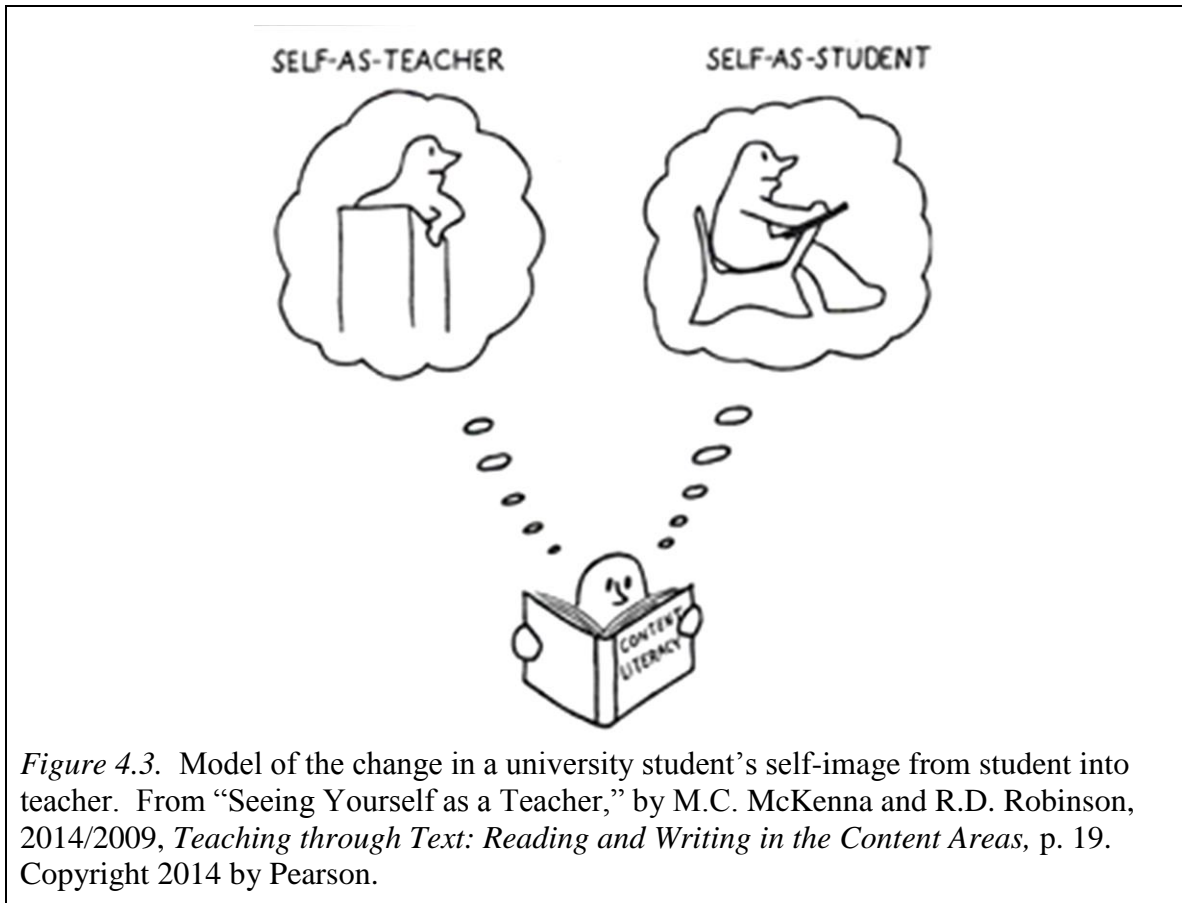


Figure 4.3. Model of the change in a university student’s self-image from student into teacher. From “Seeing Yourself as a Teacher,” by M.C. McKenna and R.D. Robinson, 2014/2009, *Teaching through Text: Reading and Writing in the Content Areas*, p. 19. Copyright 2014 by Pearson.

Additionally, in my later analysis of the data from the case group, I found evidence of the ways in which they began to think of themselves more as teachers rather than university students enrolled in a required course. Examples of their written responses are in the following list:

Megan

- Carefully planned instruction is necessary for comprehension to occur. We as teachers should be prepared to support our students as we are teaching through texts. Reading this professional text has encouraged me to apply more effort and strategies for teaching. (*My Perspectives on Literacy and Learning*, December 12, 2013)
- Throughout this semester I have been exposed to so many different resources for teachers to continue their professional development while teaching so I am looking forward to exploring those options a little more. (*Who Are You as a Reader?*, December 12, 2013)

Josh

- Literacy as we all know is a key component in our students' education so we must find ways to effectively teach them literacy in science and not just ELA/Language Arts. (*Who Are You as a Reader?*, December 12, 2013)

Lauren

- It made me realize how important it is to be aware of what is going on... within the field of education.
- I am completely aware that I should begin looking to read educational magazines that will be able to benefit me as a teacher.
- More times than not, the texts that I am required to read for my classes are beyond boring and even hard to understand at times. Coming into EDML 470 I was expecting the required textbooks to continue to be boring and teach me little to nothing. This is not the case for the textbooks required in EDML 470.

All of the required books in EDML 470 have helped me gain a better understanding of just how important literacy is in the classroom and have provided me with strategies and methods that would be an effective way of implementing and teaching literacy. (*Who Are You as a Reader?*, December 12, 2013)

Kayla

- All of the books that we used in class were prime examples on how to find supported text and how to incorporate them into lessons. Supported text also will help me through my educator journey, keeping me updated with all that is going on with other teachers in the middle level field. (*My Perspectives on Literacy and Learning*, December 12, 2013)

The thread that ran through every class meeting of the content area literacy course was the idea that teachers need to make their own decisions about what needs to be done in the classroom (Smith, 2006). As the students began to see themselves as middle level teachers, it was critical for them to understand the decision-making power each would have in their future classrooms. I found evidence in their written responses of an increased sense of agency as they wrote of the ways they intended to deepen their understanding of literacy practices and student learning. I noted in my research journal after the final class meeting of the semester:

It's amazing to me how my relationship with these students shifted this semester. At the beginning, I was the teacher and they were the students. I remember how nobody wanted to talk in that first class. Now, I hate to see them go. We became

collaborators and co-learners. I know they will become great teachers.

(December 12, 2013)

In Their Own Words

I believe the undergraduate students in the case group will continue to grow and excel as teachers of middle level students. To the readers of the study, I offer examples of the thinking of the members of the case group and some of their classmates about themselves, their future classrooms, and their predicted instructional practices. Their words illustrate their final understandings and beliefs that studying and implementing effective literacy strategies to meet the reading demands of their various disciplines will improve their future students' reading and learning. As a final example of their new learning and thinking about content area/disciplinary literacies, I offer the following excerpts from their final Exit Slip (December 12, 2013):

Kayla (Mathematics and Science)

- I believe I have learned a lot throughout this semester.
- I never realized how important literacy was in math and science until this course.
- Looking back, I had literacy all the time but never knew it.
- I think without this course, I would not be able to be the best teacher.
- Literacy is now my new best friend every time I enter the classroom.

Lauren (English language arts and social studies)

- Before this class, I truly put little thought into the importance of literacy within the classroom.

- After reading the texts and being introduced to new strategies that stimulate the students in becoming better readers, writers, and thinkers, I have a newfound understanding and love for becoming an effective teacher for literacy.
- Literacy is the key component in a student’s academic success.
- As a future educator, I understand just how important teaching literacy is as well as the importance of assessing student’s understanding.
- I look forward to implementing many of the learning strategies that I have been taught through this class into my future classroom. (see Appendix H)

Megan (Social Studies and English language arts)

- My learning has drastically changed as a result of this course.
- I am learning how to think of myself as a teacher.

Josh (Science and Social Studies)

- I have learned so much about how to teach in ways I’ve never heard of or even thought about before.
- I am so glad that this course is offered.

Over the fifteen week semester, the university students developed a deeper sense of themselves as teachers and their future students as learners. They grew in their understanding of effective comprehension, content area, and disciplinary literacies that help students become better readers and thinkers. I believe these middle level education students are poised to do great things for their future young adolescent students. As the late Dr. Maya Angelou once said, “When you know better, you do better.”

Conclusion

The intentional and purposeful study of preservice middle level teachers and their beliefs about reading and content area/disciplinary literacies created a unique space to create and recreate overarching phases and statements of their individual and combined beliefs. During the fifteen-week content area literacy course, the individual members of the case group developed understandings of the effects on young adolescents' reading and learning when cognitive, content area, and disciplinary literacies are implemented into instructional and classroom practices. The degree of each member's understanding and fidelity to these educational tenets varied according to their personal histories and predetermined beliefs. The categories revealed in the case group data set reflected the ability of their minds to adapt, alter, or change predetermined beliefs when they were presented with and had opportunities to explore, examine, and study new information. I remind the reader that while the categories of beliefs are presented in numerical order in each phase, they did not develop linearly. Instead, they were extremely recursive as the individual members of the case group visited and revisited their new understandings and beliefs about teaching and student learning with each class meeting.

Chapter Five: DISCUSSION, IMPLICATIONS, AND NEW QUESTIONS

Taking a look into educational research reveals ideas both new and not so new. What *is not so new* is research into reading comprehension strategy instruction. A major research topic for over thirty years, the idea behind this instructional approach is that teaching students to use either specific cognitive strategies or strategic reasoning will improve their reading comprehension. Research reviews (i.e., Pressley, 1998; Lysynchuk, Pressley, d'Ailly, Smith, & Cake, 1989; Rosenshine & Meister, 1994; Rosenshine, Meister, & Chapman, 1996) of earlier work in reading comprehension strategy instruction indicated the use of a “direct instruction” model. In this model, teachers seek to produce competent, self-regulated readers by teaching specific strategies or sets of strategies to students. Teachers teach a wide variety of strategies and model each strategy by “thinking aloud” as they read. These demonstrations of what proficient readers do as they read makes the invisible world of reading visible for students. The model also involves guided practice, in which students practice each strategy until they are able to perform the strategies independently through a gradual reduction of scaffolding. Studies have indicate this type of instruction is effective both in helping students acquire the strategy and improve performance on reading comprehension tasks. Teachers also commonly use particular combinations of strategies in actual teaching situations (Williams, 2002).

What *is new* is research into teacher preparation courses and the necessity for preservice teachers to have instruction in how to become effective in-service teachers of

comprehension strategies if their future students' reading, thinking, and understanding of content area and disciplinary knowledge is to improve. Preservice teachers must master a firm grasp not only of the *cognitive* processes and strategies they will teach to help students improve their reading comprehension but also of *instructional* strategies they can use to achieve this goal (Williams, 2002). As Williams (2002) summarized:

What they have shown...is that intensive instruction of teachers can prepare them to teach reading comprehension strategically and that such teaching can lead students to greater awareness of what it means to be a strategic reader and to the goal of improved comprehension. (p. 255)

For teacher educators, this leads to the difficult business of teaching content area literacy courses to preservice secondary teachers (Gritter, 2010). One difficulty results when interdisciplinary preservice teachers come into a content area literacy course expecting to receive a "one-size-fits-all" list of reading and writing strategies. However, because content area texts and curricular demands vary greatly, literacy strategies are not necessarily transferrable across disciplines making one-size-fits-all an impossibility (Draper, 2008). A second difficulty results when the pedagogical framework of content literacy coursework is invisible and alien to preservice teachers' personal experiences in content area classrooms. University-level literacy courses tend to uphold constructivist pedagogies not generally embraced in actual secondary classrooms (Draper, 2002). A third difficulty results when content area literacy instructors themselves do not recognize and understand valued disciplinary literacy practices. Lacking instruction in disciplinary literacy practices, preservice teachers are not prepared to meet the needs of students who

will likely struggle with the reading and writing demands in particular content areas (Shanahan & Shanahan, 2008).

This study contributes to the growing body of research into teacher education and the roles that reading and diverse content area and disciplinary literacy practices play in preservice secondary teachers' formation of pedagogy. In it, I explored university students' understandings of reading and literacy strategies instruction across middle level content areas. I looked closely at the written and oral responses of four students, each of whom represented a different core content area/discipline. My goal was to understand:

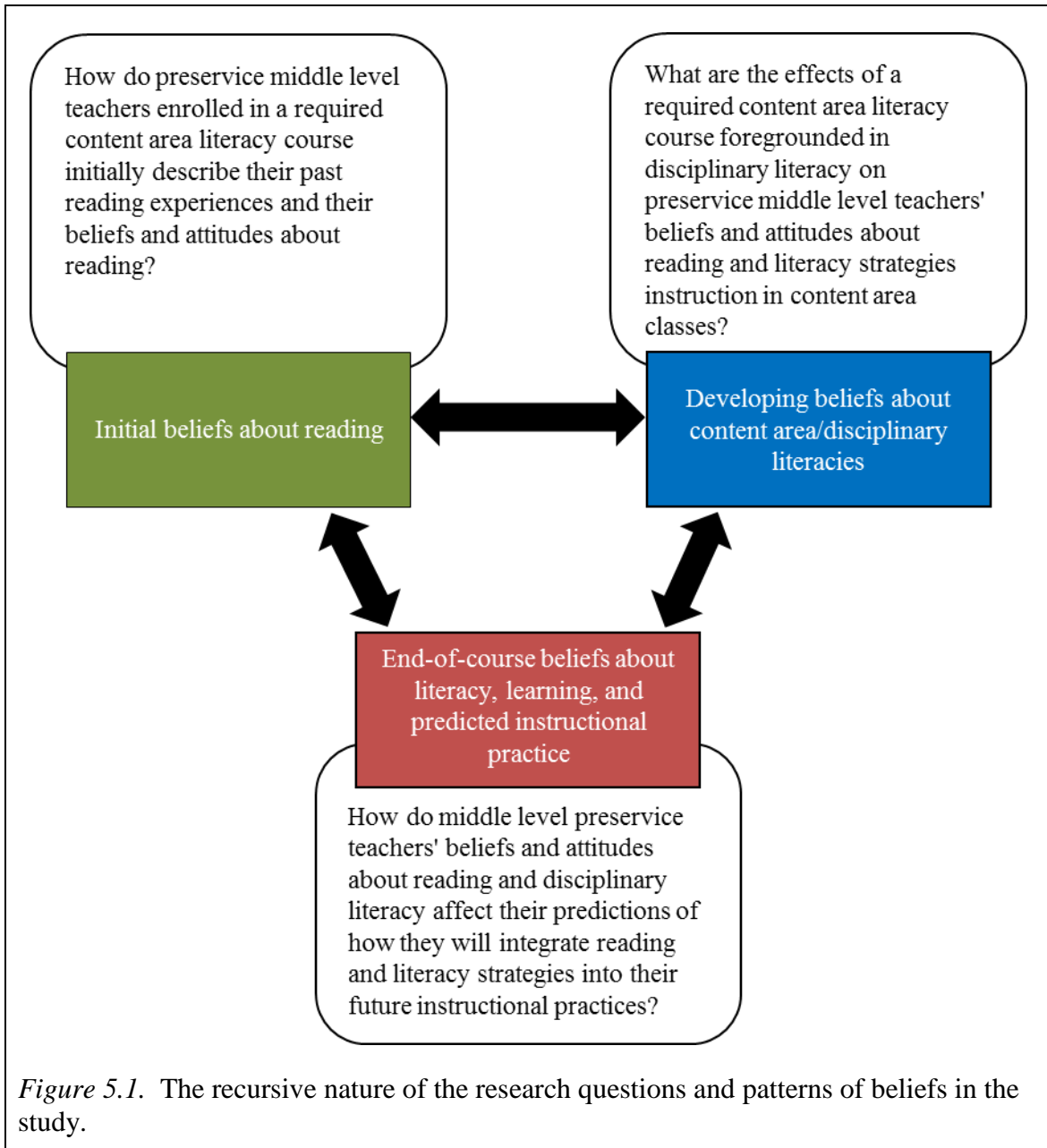
- how preservice teachers' past reading experiences led to their initial beliefs about reading,
- how new learning in a content area literacy course affected preservice teachers' developing beliefs about reading and literacy strategies instruction, and
- how preservice teachers integrated their beliefs about reading and literacy into predicted instructional practices across content areas.

Exploring the Research Questions

Spending fifteen weeks with the university students in the case group allowed me to get to know them better as both undergraduate students and preservice teachers. My categorical analysis of their written and oral responses to literacy invitations and engagements in the coursework gave me glimpses into their past, present, and future beliefs about reading and effective literacy strategies instruction.

Because the focus of this study was the preservice teachers' beliefs, the findings reflected the evolution of their thinking and understanding about incorporating cognitive,

content area, and disciplinary literacy practices into future instruction. I encourage the reader to consider the recursive nature of the questions and patterns of beliefs as the case group members continuously moved back-and-forth in their thinking to assimilate new learning into previously held beliefs (see Figure 5.1.). My response to each question is presented as a separate section in the following discussion.



How do preservice middle level teachers enrolled in a required content area literacy course initially describe their past reading experiences and their beliefs and attitudes about reading?

Bryan and Tippens (2005) indicated how “prospective teachers’ beliefs and knowledge about teaching and learning are shaped by their prior experiences” (p. 229). For teacher educators, it becomes valuable to have preservice teachers examine those experiences early in the process of teacher education in order to expedite reflective practice and the possibility of change (Edwards, 2009).

As part of this study, I provided preservice teachers with opportunities to look back at where they had come from as readers and how their prior experiences may have influenced their beliefs about reading and literacy practices. I believe that beginning the semester with reflective pieces of writing and responding signaled to students the value of reflection as part of their growth as a teacher. After all, preservice teachers are constantly asked to reflect on their teaching experiences as well as their learning from these experiences.

Additionally, I included reflective writing invitations with each informal and formal product of the required coursework in all three phases of the study. These writing invitations were framed within Sparks-Langer and Colton’s (1991) three elements of teachers’ reflection and reflective practice: narrative, cognitive, and critical (see Table 5.1).

Table 5.1

Elements of Teachers' Reflective Thinking

Narrative	Cognitive	Critical
Refers to teachers' own interpretations of the events that occur within their particular contexts	Describes how teachers process information and make decisions	Focuses on the substance that drives the thinking—experiences, goals, values, and social implications

Note. Adapted from “Synthesis of Research on Teachers’ Reflective Thinking,” by G.M. Sparks-Langer and A.B. Colton, 1991, *Educational Leadership*, pp. 37-44. Copyright 1991 by the Association for Supervision and Curriculum Development.

During phase one of the study, the narrative element was the frame for reflective responses, including formal course products, *My Literacy Autobiography*, *What Do You Think about Reading and Literacy*, and *Remembering Reading*, as well as informal products and recorded conversations. As narrative reflection refers to interpretations of events that occur within particular contexts, preservice middle level teachers created reflective narratives about literacy events from their pasts. I found one benefit of incorporating the narrative element was the insight the members of the case group gained about their initial reading beliefs as a result of “self-inquiry” (Sparks-Langer & Colton, 1991, p. 43). I found a second benefit of incorporating the narrative element was the insight I gained as the teacher educator into the case group’s experiences, beliefs, and attitudes toward in-school and out-of-school reading, the process of reading, and the purpose for reading (Brown, 1999).

Reading as Positive Experiences

In phase one of the study, students explored their past experiences and favorite memories with reading. All members of the case group responded positively about childhood reading experiences prior to entering school. Kayla and Lauren both shared fond memories of family bedtime reading rituals. Through the processes of reflective

thinking and self-inquiry, they both analyzed their memories and concluded that even though they could not yet read the words, they comprehended the texts by listening to it being read aloud and “reading” the pictures. For Kayla and Lauren, memories of childhood reading experiences with supportive adults became an influence on their later developing beliefs about reading instructional practices.

Similarly, Megan shared happy memories of her favorite reading experience in the summertime at the beach with her friends. She recalled her feelings of happiness, relaxation, and freedom as she sat by the ocean, lost in a favorite book. Through her reflective thinking about past experiences, Megan realized the enjoyment she felt in school during sustained silent reading (SSR) mirrored the internal feelings she felt during her personal recreational reading at the beach. Megan valued reading whenever it was an enjoyable experience that made her happy. Without realizing it, Megan was setting the stage for developing her future beliefs about the affective nature of effective classroom reading instruction.

These examples from the categorical beliefs I created through my data analysis suggest the significance of offering preservice teachers opportunities to explore their previous experiences with reading and literacy. I believe that even though they may not have been consciously aware of the decisions they were making as they sifted through all of their memories about reading, members of the case group wrote or sketched their significant beliefs. For example, preservice teachers who believed in childhood reading rituals that included a supportive adult reading aloud and making meaning through pictures suggests the potential for developing beliefs about reading in the content areas that include read aloud and visualization strategies as important instructional practices.

Likewise, preservice teachers who believed in the enjoyment and value of having extended time for self-selected reading suggests the likelihood for developing beliefs about the importance of creating constructivist-framed literacy workshop classrooms in which students have choices of accessible texts along with extended blocks of time for reading.

Reading as Negative Experiences

Another of the primary intentions for having preservice teachers create literacy autobiographies or literacy histories is to help future teachers change negative or limited beliefs about reading. This allows them to create a new space in their thinking to see reading as more of a tool for creating personally meaningful learning for students (Bintz, 1997).

For the members of the case group in this study, their primarily negative, utilitarian responses towards in-school reading experiences represented a marked difference with their pre-school and out-of-school reading experiences. Data analysis of their initial responses revealed case group members who believed in-school reading was “boring, brutal, and not fun.” Lauren and Megan focused on the resentment they both felt when they were forced to read books either they did not chose or did not interest them. Megan also responded negatively about what she believed to be the competitive element of reading in school for extrinsic rewards. She noted how forced reading for trivial prizes could lead to a decrease in a student’s confidence as a reader. All members of the case group responded with shared beliefs that painted a picture of in-school reading as laborious, tedious classwork that only led students to a basic, surface-level knowledge of skills and information.

Even though the preservice teachers' initial beliefs toward reading were generally negative, it is important to note that Cardarelli (1992) found preservice secondary teachers' attitudes toward reading to be malleable. In their 1998 study, Roe and Vukelich found teacher education classes and field experiences overshadowed the influence of preservice teachers' previous negative reading and literacy experiences. Similarly, Daisey (2009) encouraged preservice teachers who had had negative reading experiences to promise themselves not to repeat negative reading experiences in their future instruction. She suggested instead to reflect on past positive reading experiences and attempt to recreate those experiences for their future students.

During later data analysis, I found the initial beliefs built upon the negative experiences of the case group changed as a result of their new learning about the social constructivist process of comprehension and their study of and practice with research-based literacy strategies. In their stated end-of-course beliefs about reading, they viewed reading as comprehension of text that could be improved through explicit instruction in research-based literacy strategies instead of a tiresome, linear process. Their responses reflected an understanding of the need to create engaging classroom environments that mimicked the authentic enjoyment of out-of-school reading. They wrote of their beliefs of proficient reading and effective literacy strategies leading students to deeper understandings of content area knowledge. Even though her initial responses included several negative experiences with reading, in one of Megan's later responses she wrote, "When I have my own students in the future I plan to focus on how to encourage them to become better readers and writers" (*My Literacy Autobiography*, September 4, 2013).

What are the effects of a required content area literacy course foregrounded in disciplinary literacy on preservice middle level teachers' beliefs and attitudes about reading and literacy strategies instruction in content area classes?

It is a requirement in the state where this study was situated for university graduates to have a content area literacy course within their program of study to gain initial teacher certification. Required courses of this type are devoted to teaching literacy strategies with the expectation that secondary preservice teachers will use these strategies in their future classrooms to foster adolescents' growth and development as readers and writers across content areas. For many teacher-education programs, this type of literacy course tends to provide generic literacy instruction and often fails to recognize literacy practices unique to each discipline (Pytash, 2012). However, today's field of secondary content area literacy instruction (see Table 5.2) seems to be moving from a general understanding of literacy strategies and practices toward disciplinary literacy, a more sophisticated and discipline-specific examination of language and literacy (Conley, 2012; Moje, 2008a; Shanahan & Shanahan, 2008).

Table 5.2

Nature of Content Literacy Courses in Secondary Teacher Preparation Programs

Traditional Content Literacy Course in a Secondary Teacher Preparation Program	Content Literacy Course Foregrounding the Disciplines in a Secondary Teacher Preparation Program
<ul style="list-style-type: none"> • Tend to provide generic literacy instruction • Devoted to teaching literacy strategies for classroom use • One-size-fits-all approach to literacy • Organized according to literacy-related topics • Focus on literacy rather than on the subject areas impedes integration of literacy and content • Little or no recognition of literacy practices unique to particular disciplines • Assumption of pre-service teachers' content expertise with limited to no experience communicating knowledge to adolescents • Coursework resting on theoretical and pedagogical frameworks invisible and alien to pre-service teachers' experiences in content area classrooms 	<ul style="list-style-type: none"> • More sophisticated and discipline-specific examination of literacy • Study of practices and discourses of disciplinary experts • Opportunities to enact the identity of the disciplinary expert • Stresses domain knowledge specific to the content area • Literacy practices are shaped by disciplinary contexts • Examines text differences across disciplines • Addresses reading challenges posed by special demands of texts across disciplines • Content area literacy instructor serves as co-learner by recognizing and making visible the prior disciplinary knowledge of pre-service teachers • May provide opportunities for pre-service teachers to have critical encounters with secondary students who may struggle in the content areas • Provides cross-disciplinary opportunities for evaluating texts and literacy tasks • Provides a reexamination of what counts as text within various disciplines • Provides a context for pre-service teachers to become more student-centered

Note. Based on “Foregrounding the Disciplines for Teacher Preparation in Secondary Literacy,” by M.W. Conley, 2012, *Journal of Adolescent & Adult Literacy*, 56(2), pp. 141-150. Copyright 2012 by the National Council of Teachers of English; “Insert Student Here: Why Content Area Constructions of Literacy Matter for Preservice Teachers,” by K. Gritter, 2010, *Reading Horizons*, 50(3), pp. 147-168. Copyright 2010 by Reading Horizons; “Foregrounding the Disciplines in Secondary Literacy Teaching and Learning: A Call for Change,” by E.B. Moje, 2008, *Journal of Adolescent & Adult Literacy*, 56(2), pp. 96-107. Copyright 2012 by the National Council of Teachers of English; “Engaging Preservice Teachers in Literacy Learning through Writing,” by K.E. Pytash, 2012, *Journal of Adolescent and Adult Literacy*, 55(6), pp. 527-538. Copyright 2012 by the National Council of Teachers of English; “Teaching Disciplinary Literacy to Adolescents: Rethinking Content-Area Literacy,” by T. Shanahan and C. Shanahan, 2008, *Harvard Educational Review*, 78(1), pp. 40-59. Copyright 2008 by Harvard Education Publishing Group.

With this in mind, I developed the curricular framework to meet the goals I determined would best fit the needs of the university students in the required content area literacy course while providing them with a broader view of effective literacy strategies. I wanted the content area literacy course to serve as an intellectual space in which the preservice middle level teachers could consider how cognitive and disciplinary epistemologies strengthen and deepen content area literacy instruction. Specifically, I wanted the university students (1) to understand how being able to incorporate multiple literacies into their future instructional practices would become a critical element in their future students' improvement as readers and thinkers, and (2) to understand and practice many types of literacy strategies, including cognitive, content area, and disciplinary. It was important for me to find out what effects, if any, having this breadth of pedagogical knowledge about literacy would have on their beliefs and predicted practices.

Additionally, I knew that even though content area literacy is not a new field, both preservice and inservice teachers still tend to be resistant to content literacy as an instructional approach (Fisher & Ivey, 2005; Lesley, 2005). Research has shown that teachers tend to implement instructional practices that reflect the methodology they experienced when they were students, regardless of whether or not it either meshes with best practices they learned during teacher preparation programs or has a research base (Lortie, 1975; Willis & Harris, 1997).

Within the context of the content area literacy course, I provided opportunities for the university students to collaborate and actively engage in experiences with a variety and range of effective literacy strategies in order to develop their understandings and beliefs. I hoped the data I collected from their responses would indicate whether they

formed new beliefs based on deeper understandings of reading and literacy as instructional practice or if they retained their initial negative thinking about in-school reading experiences.

Future Middle Level Students' Literacy Needs

The members of the case group, along with their classmates, engaged in authentic learning experiences by practicing the literacy strategies they were studying for future use with middle level students. They thought deeply *about* literacy strategy instruction *through* literacy strategy instruction. From responses I collected during this phase of the study, I found evidence that their developing beliefs incorporated each of the literacies included in the content of the course. Their shared thinking about the instructional needs of their future students suggested they were developing beliefs about student-centered classrooms, accessible texts, and critical reading strategies for deepening comprehension and understanding of content area knowledge.

As I analyzed the data, I found a definite shift in their thinking about reading and literacy instruction from the traditional delivery-model of a teacher-centered classroom to the more collaborative-model of a student-centered classroom. Thinking about middle level students' instructional needs, Josh reflected, "I believe that these literacy strategies will help my future students," while Kayla responded, "I believe the reading strategies I picked out will definitely help my students" (excerpts from Self-Reflection of Strategy Lessons, November 20, 2013). These responses suggest a developing awareness by the members of the case group of the necessity for planning instruction based on students' literacy needs rather than planning linearly from the assigned content area textbook.

Megan combined a belief in creating a student-centered classroom with a belief in providing a variety of accessible texts to enhance students' learning of social studies content. In her written reflection about creating text sets, Megan responded, "I think that middle level students would appreciate having a visual representation of what life would have been like in Europe during this time. Reading about it is beneficial but a visual might help supplement some of their learning" (November 7, 2013). Not only did Megan consider the instructional needs of the students, she also considered what constituted a text and how incorporating a variety of texts could lead to a deeper understanding of disciplinary content. Her thinking grew to include visualization as a cognitive strategy for improving and deepening understanding of disciplinary knowledge.

Additionally, Megan wrote how she wanted to "help students think of themselves as historians while studying history content" (October 24, 2013). This response suggests Megan developed beliefs about the importance of foregrounding disciplinary literacy within a study of cognitive and content area literacy practices and strategies. It suggests that through her study of literacy epistemology, she recognized "a need to identify what a more advanced literacy curriculum might be and to determine how it could best be implemented" (Shanahan & Shanahan, 2008, p. 43).

Middle Level Teachers' Literacy Responsibilities

Data analysis of documents collected from the case group during phase two also suggested they were developing beliefs about their own literacy responsibilities as future middle level teachers. Each member wrote of the necessity for teachers in all content areas to understand the process of reading in secondary content area classes. Responses from the group members suggested a shared belief that secondary teachers needed to

know the process of reading as the way to help students become more proficient meaning-makers across content areas. These responses suggested a deeper understanding of reading in secondary education as a process that could be improved through overt teaching of literacy strategies. Because they had studied the network of processing systems for reading within the context of the content area literacy course, I found they were confident in its validity to help students become more proficient readers (see Table 5.3). As Lauren wrote, “You can’t effectively teach reading if you don’t understand the process (September 26, 2013).

Table 5.3

A Network of Processing Systems of Strategic Actions for Reading

Thinking Within a Text	Thinking Beyond the Text	Thinking About the Text
<ul style="list-style-type: none"> • Solve Words: Use a range of strategies to read and understand words. • Monitor and Correct: Check on accuracy and understanding, and work to self-correct errors. • Search for and Use Information: Notice and use information sources. • Summarize: Remember important information and retell it in sequence. • Maintain Fluency: Read at a good rate, with phrasing, pausing, intonation, and appropriate stress. • Adjust: Take action in flexible ways to solve problems or fit purpose and genre. 	<ul style="list-style-type: none"> • Predict: Think about what may happen next. • Make Connections: Connect the text to personal and world knowledge as well as to other texts. • Synthesize: Adjust present understandings to accommodate new knowledge. • Infer: Think about what the writer means but has not stated. 	<ul style="list-style-type: none"> • Analyze: Notice aspects of the writer’s craft and text structure. • Critique: Think critically about the text.

Note. Adapted from “Guided Reading: The Romance and the Reality,” by I.C. Fountas and G.S. Pinnell, 2012, *The Reading Teacher*, 66(4), p. 273. Copyright 2012 by the International Reading Association.

Further analysis of their responses led me to find a change in their thinking about what reading instruction should look like in a secondary content area classroom. As a group, they seemed to move away from their initial beliefs of reading as a linear, phonics based process of decoding and pronouncing words to new beliefs about reading as a social, collaborative process. From their study of constructivism as a theory about knowledge and learning, they collectively expressed beliefs about reading as a social process for making meaning from text. Instead of focusing on reading at the word level, the members of the case group demonstrated an understanding of reading to integrate new information with what is already known—a way to construct understandings not only of a text, but of other readers and the world around them (Barnhouse & Vinton, 2012; MacLaughlin & Allen, 2009).

Through their words, the members of the case group shared their passions for the content areas they hoped to teach. I found evidence in their responses of their excitement and interest in learning about disciplinary literacy strategies. Kayla, initially skeptical about literacy in mathematics, responded during phase two, “Literacy should be discipline specific so students don’t feel like they are in another English class.” In several written responses, Josh expressed his belief about the importance of incorporating reading strategies into science instruction because “students need help in reading scientific articles and texts.” He stressed the need for science students to know the “importance of questions and discussion.” He believed science teachers should teach strategies encouraging “the students to ask questions needed to get further understanding in the content.”

These responses suggested the members of the case group were beginning to think about the potential for incorporating disciplinary literacy strategies into their future instructional practices. Their reflective thinking suggested an eagerness to explore literacy practices which intersected with their teaching of curricular content. They appeared to believe in Buehl's (2011) idea that "students need to be mentored to read, write, and think in ways that are characteristic of discrete academic disciplines" (p. 10).

Throughout phase two of the study, I found the preservice teachers engaged in the cognitive element of reflective thinking (Sparks-Langer & Colton, 1991). Their reflective responses focused on how they believed content-area teachers should use their knowledge in instructional planning and decision making. They included beliefs of how they planned to address important ideas specific to their content areas or disciplines within their teaching. The written responses I collected from the case group members were indicative of their cognitive reflective thinking about the course content and their new learning of literacy strategy instruction.

How do middle level preservice teachers' beliefs and attitudes about reading and disciplinary literacy affect their predictions of how they will integrate reading and literacy strategies into their future instructional practices?

Teachers' beliefs about effective teaching and best practice have a profound impact on their classroom instruction and environment (Konopak & Williams, 1994). Pajares (1993) wrote, "Teachers' beliefs can be understood in the context of teaching practices and student outcomes, but as these are not in evidence during the preservice experience, the beliefs of teacher candidates have few reference points against which to be compared" (p. 50). Taking Pajares's statement into consideration, I found from the

data analysis in phase three how Vygotsky's (1978) theory that learning can be scaffolded through a learner's collaboration with a more knowledgeable person (my role as the teacher educator) intertwined with the content of the required literacy course to form the reference points for the final beliefs expressed by the members of the case group. As Linek, Sampson, Raine, Klakamp, and Smith (2006) wrote, "If teachers are not cognizant of the beliefs that they hold concerning the teaching of reading, they do not possess the power to monitor and self-regulate their instructional practices" (p. 209). The findings of this study support the need for teacher educators to provide preservice teachers with the reflective learning experiences necessary for their professional growth.

As the teacher educator/researcher in this study, I was cognizant of the role my own beliefs about teaching and learning may have played in the stated final beliefs of the case group members. This served as the reference point upon which I based the findings of their growth and change in beliefs about reading and literacy strategies.

The curricular engagements I developed for the university students were based upon my two central beliefs about teachers and teaching: (1) the constructivist nature of content area literacy is best realized when combined with cognitive and disciplinary literacies, and (2) teachers develop deeper beliefs and stronger teaching practices when they are reflective practitioners who routinely and regularly engage in reflective thinking. In the first belief, my view of content literacy is that students construct and co-construct a deeper understanding of content area knowledge through activities such as collaboration, discussion, thinking, and reading and writing from multiple perspectives, including those perspectives of practitioners of the various disciplines. From this perspective, learning is student-centered and student-driven (Fisher & Ivey, 2005). In the second belief, I

conceptualize teaching as an act of thoughtfulness about how best to support the learning of students, as well as teachers themselves (Barell, 1995; Short, Harste & Burke, 1997). Thoughtful teachers engage in reflective practice by thinking both about their instructional practices and about ways to develop and implement personally meaningful and culturally relevant curriculum for their students (Allington, 2002).

The approach I took with the preservice teachers in this study was to teach content area literacy to them through the lens of my beliefs so together we could co-construct an understanding of effective reading and literacy strategies instruction. I believed this would enable them to shape themselves both personally and professionally in ways to develop their predicted future instructional practices. To reiterate my thinking, my central beliefs about teachers and teaching served as the reference points for the findings of the study.

As the university students read and studied the curricular concepts of the content area literacy course, they moved into the critical element of reflective thinking about their beliefs and their predicted instructional practices. Thinking critically about instructional decision-making “stresses the substance that drives the thinking—the experiences, beliefs, sociopolitical values, and goals of teachers” (Sparks-Langer & Colton, 1991, p. 39). As the members of the case group engaged in critical reflection about their new learning, they begin to clarify their own beliefs about teaching and learning and to critically examine their teaching methods and materials. Their actions supported Bintz and Dillard (2007) who wrote:

Teachers as reflective practitioners continually try to understand what they currently believe about learning, articulate to themselves and others why they

believe what they do, and use teaching as a powerful tool to enhance student learning and promote their own growth. (p. 223)

The categories that emerged from the data in phase three of this study reflected the critical thinking of the case group members as they envisioned themselves as future middle level teachers.

Teachers as Disciplinary Educators

The thread I found running through all responses in the twelve initial categories in phase three was “teacher and student learning.” The members of the case group expressed their end-of-course beliefs about reading, literacy, learning, and predicted instructional practices by critically reflecting on what they believed to be the purposes behind the decisions they would make when they became teachers in their various disciplines.

Kayla, Lauren, Megan, and Josh thoughtfully prepared formal presentations of how they saw themselves as future teachers incorporating reading and literacy strategies instruction into each of their respective disciplines. From their responses, I found evidence of preservice teachers who saw themselves helping their future students develop deeper understandings of disciplinary knowledge by becoming more strategic, proficient readers, writers, and thinkers.

Josh provided an example of this perspective in his self-reflection of the strategy lesson he planned. He reflected not only on the lesson itself but also on the feelings he experienced during the process of planning. Through his words, I found he was becoming a preservice teacher growing in his self-awareness of keeping his future students’ instructional needs at the center of his planning. He noted how literacy

strategies vary across disciplines as he recognized the need for teachers to decide what strategies would work best in each discipline. In his response, he was also reflective about his own professional growth throughout the content area literacy course—one of the defining characteristics of a critically reflective thinker (see Appendix I).

A second example of critical reflection came from Kayla’s written response of having her math students keep math journals as a way to express themselves. She wrote:

I can really see my future students writing in a journal at the end of each class period to discuss things that they liked, struggled with, or were confused about. I would use this to help me plan for the next day’s lessons, with what I need to go back over. This will allow my students to have a second chance to understand material. (December 5, 2013)

Kayla’s response exemplified the thinking processes of a critical reflective thinker as well as the final categorical beliefs of the case group. By describing, analyzing, and making inferences about a hypothetical event in her future classroom, Kayla created her own pedagogical principles. Smyth (1989) referred to these as “short-range theories” that help critical reflective teachers make sense of what is going on with their instruction and guide further action. Having math students engaged in writing-to-learn journaling demonstrated Kayla’s belief in creating an active, engaging classroom that maximized student learning by offering a variety of resources and literacy strategies. As a critical reflective thinker, Kayla saw the math journals as not only a method for deepening students’ understandings of mathematical knowledge as they shared their thinking with her, but also a method for deepening her own understanding of the students and their instructional needs.

Kayla's new learning from the content area literacy class also led her to believe in her own self-efficacy as a future teacher. As Bandura (1986) observed, "People regulate their level and distribution of effort in accordance with the effects they expect their actions to have. As a result, their behavior is better predicted from their beliefs than from the actual consequences of their actions" (p. 129). Kayla's belief that a literacy strategy would give her the capability to bring about the desired outcomes for her future students' engagement and learning in math motivated her to become a teacher who incorporated literacy strategies into mathematics instruction (Henson, 2001).

Teachers as Disciplinary Professionals

Kayla's written response about how she viewed herself as a future teacher also revealed her belief in teaching disciplinary literacy strategies to young adolescents. In their study of the different arrays of disciplinary reading processes, Shanahan and Shanahan (2008) found that mathematicians emphasized rereading and close reading as two of their most important strategies. They went on to explain how reading in mathematics "requires a precision of meaning, and each word must be understood specifically in service to that particular meaning" (Shanahan & Shanahan, 2008, p. 49). Through her collaborative study in the university course of these disciplinary literacy concepts, Kayla incorporated the concepts into her predicted instructional practice. Her written responses included:

- To help my future students understand text and accomplish reading goals, I will teach them skills on how to understand and dig deeper into reading texts to find a bigger meaning.

- While reading a text, students can use sticky notes to make their thinking, questions, and connections so they won't forget by the end of reading.
- Highlighting can allow the students to stay active while reading and let them pick out key points.
- The concept of close reading I believe will be used a lot in my future classrooms.
- Some people may question why do our future students need to learn and have literacy in their daily instructions; I will admit I was thinking that at the beginning of the semester because I never thought it would apply to math. I was completely wrong. (December 5, 2013)

Through my analysis of Kayla's written responses in phase three of this study, I also found evidence of a developing sense of agency in her end-of-course beliefs about literacy, learning, and predicted instructional practice in mathematics. Walter and Gerson (2007) noted "that personal agency, the responsibility to act with mindful awareness of others, is fundamental for learning" (p. 205).

In her reflective thinking about herself as a reader, Kayla wrote of her responsibility as a future teacher to take charge of her own professional reading to deepen her understanding of literacy strategies instruction in mathematics. She believed her own growth as a reader would positively impact her students' learning (December 11, 2013). She wrote, "Reading has never been a big part of my life, but when I enter the classroom that will change. Incorporating reading into each lesson is key and will definitely be a challenge for me in the math class." Later in the response, she continued, "I didn't think it was necessary to read texts about teaching until this past semester when I started being

enrolled in education classes that will help in my future career.” Anticipating her future professional reading needs, Kayla wrote, “Books are very expensive. I think that if more and more books became e-texts, I would buy more.”

I found Kayla’s responses to be indicative of the collective case group thinking. The categories of their end-of-course beliefs revealed an awareness of their responsibilities as teachers of young adolescents to provide the most effective learning environment for their students while expanding and deepening their own professional understandings of effective literacy strategy instruction. I found evidence not only of their knowledge of cognitive, content area, and disciplinary literacy strategies but also of methodology for implementing literacy strategies across various disciplinary settings. Descriptions of their predicted classroom environments revealed their thoughts about the effectiveness of a constructivist-based model for learning.

I also found development of the pedagogic beliefs of the four members of the case group may have reflected many of the curricular decisions I made as the teacher educator of the required content area literacy course. During the fifteen-week study, I used three recursive steps as I purposefully structured the course to provide the students with opportunities to (a) explore predetermined beliefs that stemmed from their past experiences with reading and learning; (b) engage in a focused study of a constructivist-based classroom workshop model for cognitive, content area, and disciplinary literacy learning; and (c) expand their thinking through narrative, cognitive, and critical reflection. The synergy created between and among the three critical components of the course allowed the preservice teachers to examine past experiences while engaged in new learning in the present to better predict their future instructional practices as middle level

teachers (see Figure 5.2.). By looking into the evolution of the preservice teachers' beliefs, I found the recursive curriculum allowed me, as their university instructor, to be more responsive to their understandings of effective pedagogy.

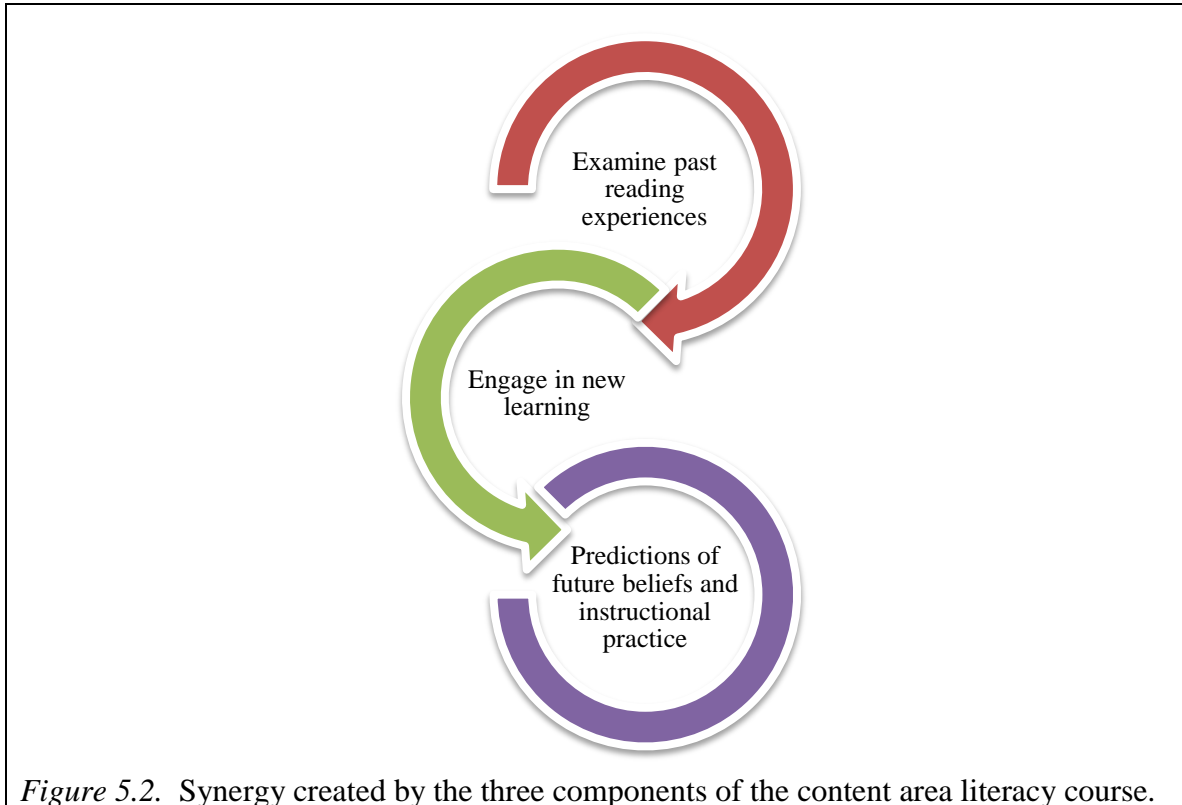
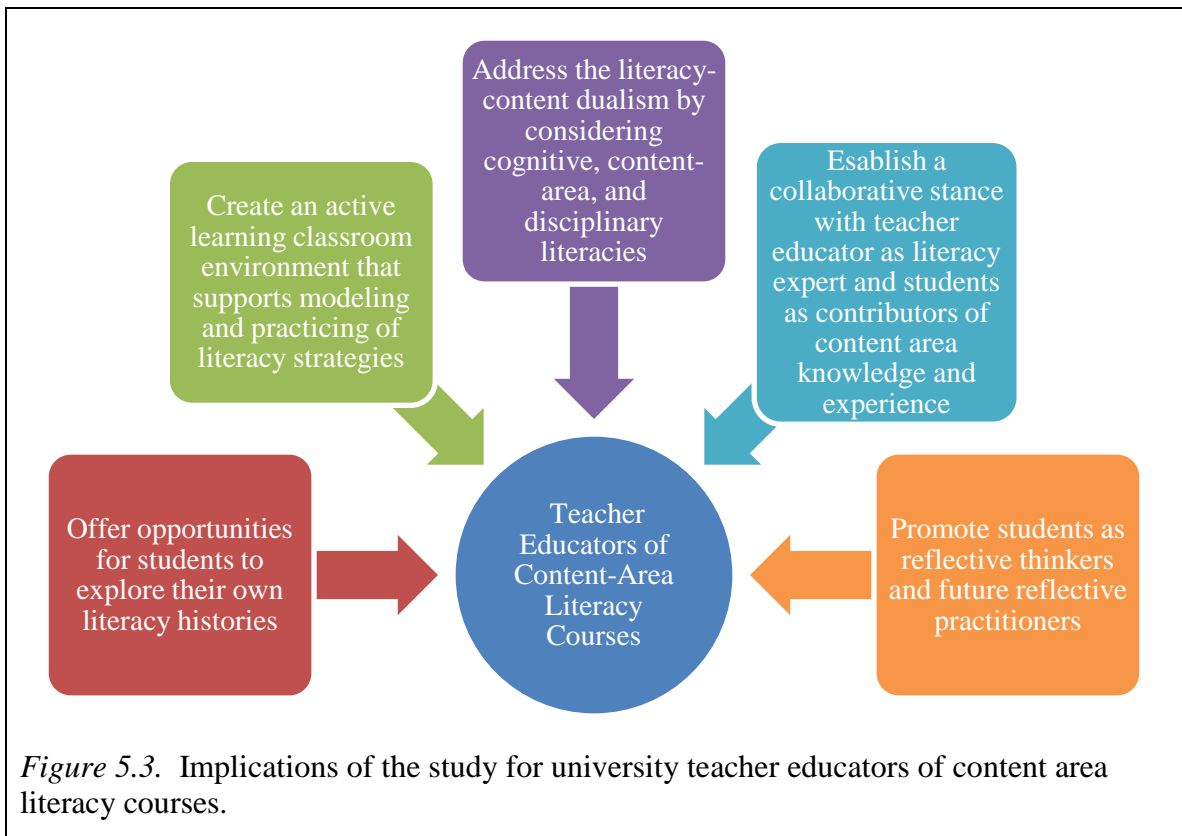


Figure 5.2. Synergy created by the three components of the content area literacy course.

Implications of the Study

The understandings I formed from the categorical analysis and discussion of the research questions suggest several ways for university teacher educators to consider their teaching of content area literacy courses to preservice teachers majoring in education. These include providing opportunities for examination of predetermined beliefs about reading and learning; creating an active learning classroom; expanding the study of literacy strategies instruction in a content area course to include disciplinary literacy; establishing a collaborative stance with students; and exploring the impact of reflective

thinking on preservice teachers' beliefs and predicted instructional practices (see Figure 5.3).



Teacher Educators and Middle Level Preservice Teachers' Predetermined Beliefs

My work alongside these university students showed me how preservice teachers can develop complex beliefs about teaching, learning, and literacy strategies instruction in middle level content area classes. I believe teacher educators could enhance teaching and learning in required content area literacy courses by offering students opportunities to explore their own literacy histories. If teacher educators of content area literacy courses expect preservice teachers to develop pedagogic beliefs about curricular learning of literacy strategies instruction, they must first allow students to uncover subconsciously held past beliefs. By recursively revisiting these predetermined beliefs throughout the

content area literacy course, preservice teachers will be able to revise past beliefs and develop new beliefs about their future classrooms and instructional practices.

For example, not all preservice teachers in the study reported positive past experiences with reading in school. The “less than positive” memories ranged from being forced to read a book the teacher picked out for the whole class to being bored and uninterested in the content of the book. Having to read books with challenging vocabulary or lacking adequate background knowledge were other reasons the preservice teachers gave for not connecting with in-school reading.

Whatever their past classroom experiences were, preservice teachers must have opportunities in content area literacy courses to examine their past beliefs about and experiences with in-school reading before they will be able to establish new beliefs about reading. These new beliefs might include allowing students to have choices of texts, materials, and resources to read based on interests in the topic of study—many times the opposite of the preservice teachers’ past experiences.

When preservice teachers create literacy autobiographies as part of required content area literacy coursework, the broad range of their past experiences becomes rooted in meaning. They are all meaning-makers (Wells, 1986), and the meaning inherent in their personal and professional experiences is influenced by the affect attached to it (Meyer, 1993). Making meaning and sense is at the heart of constructive practice and educative experiences (Dewey, 1938). Thus, it is important for teacher educators of required content area literacy courses to both acknowledge and help preservice teachers explore and make sense of their own literacy lives.

I believe preservice teachers will develop strong beliefs about infusing literacy instruction into their content area teaching if they are initially provided opportunities to explore and define who and what they are as teachers of literacy. Defining where they come from, who they are in the present, and what they hope for the future will create their literacy beliefs and identities (Bruner, 1990; Edwards, 2009).

Teacher Educators and Middle Level Preservice Teachers' Developing Beliefs within the Context of a Content Area Literacy Course

The findings of the study imply preservice teachers develop deep beliefs about reading, literacy, learning, and practice when the university classroom mirrors the constructivist-learning theory in typical university content area literacy courses. Because I believe student learning, whether middle-level or university-level, is best achieved in an active learning classroom (see Table 5.4), I created such an environment in the university literacy course. In this way, the preservice teachers would learn about creating active learning classrooms for their future students while being students in an active learning classroom. The model for active learning follows a central tenet of constructivist learning by providing students with an authentic, active process for co-constructing knowledge as they collaborate with other learners within the context of the learning activity (Vygotsky, 1978).

Table 5.4

Principles That Guide an Active Learning Classroom

1. Set up an engaging environment (includes desk arrangements, materials, affective climate)	6. Teach with big ideas in mind (implications of complex issues surrounding events and concepts)
2. Gather great text and resources (variety and range)	7. Promote authenticity and relevance (in-school learning reflects out-of-school living)
3. Hone teaching language (students should adopt and adapt teaching language as learning language)	8. Think about purpose (establish purposes for reading)
4. Provide for rich interaction (students must interact with text, teacher, and each other)	9. Foster passion, curiosity, and fun (create an irresistible urge to wonder)
5. Differentiate instruction for everyone (one size does not fit all)	10. Help students take action (active use of knowledge)

Note. Adapted from *Comprehension and Collaboration: Inquiry Circles in Action*, by S. Harvey and H. Daniels, 2009, p. 75-95. Copyright 2009 by Heinemann.

My decision to combine the active learning classroom model with the literacy workshop model created an ethos in which the preservice students found themselves immersed in a literacy strategies environment. Throughout the fifteen-week semester, all students in the literacy course read, wrote, studied, and collaborated as they engaged in authentic activities using a variety of literacy strategies and disciplinary texts. The preservice teachers learned how to teach literacy strategies to their future students by learning and using literacy strategies themselves. They learned how to select authentic, age-appropriate, disciplinary texts and resources for their future students by selecting and reading these texts and resources themselves. They learned the importance of establishing a classroom environment that would foster the disciplinary learning of their future students by being in a university environment that fostered their own learning of content area literacy. They explored a range of literacy strategies and approaches to use

with future students by collaborating with classmates both within and across disciplines to develop understandings and beliefs about the role of reading and literacy strategies instruction in content area classes.

The findings from the later analysis of data revealed the ways in which the members of the case group internalized the principles that guide an active, learning classroom and made them part of their beliefs about literacy, learning, and practice. Their words and voices reflected their deep understandings of the significance for creating an active learning classroom to support reading and literacy strategies instruction. Having continuous opportunities to practice the literacy strategies themselves, along with my modeling of the strategies in authentic practice, deepened their understanding of the purposes for strategy instruction.

This study confirms Kropiewnicki's (2006) finding that preservice teachers need to be shown what teacher educators want them to do and how to do it correctly through modeling and practice. The findings further imply that teacher educators who create active learning experiences in content area literacy courses impact preservice teachers developing beliefs about their own future literacy instruction.

Preservice teachers also must have opportunities in university literacy courses to connect new conceptual knowledge about strategies instruction and student learning with its constructivist roots. Teacher educators should help preservice teachers understand the difference in teaching stance when the teacher's expectation is that students are reading to build content-area and disciplinary knowledge rather than simply reading to accrue static bits of information (Bereiter & Scardamalia, 2003). Adapting the proposals of

Palincsar and Schutz (2011) to university teacher education literacy courses implies the need to help preservice teachers come to understand:

- the use of related texts that allow students to experience the process of deepening their understanding across texts;
- the teaching of strategies as a repertoire of thinking tools that should be used in opportunistic ways, determined by the demands of the text and the goals of the reader; and,
- the overarching goal that teachers explicitly teach strategies in the service of advancing knowledge building. (p. 91)

Studies of how in-service teachers change existing beliefs about teaching and learning suggest only when they see positive results in student learning stemming from the new ideas and concepts do they begin to change (Guskey, 1986). To adapt this idea to preservice teachers, the findings in this study imply how the members of the case group were amenable to changes in their beliefs about reading and literacy strategies after they themselves had positive experiences in the context of the literacy course. Their written and oral responses demonstrated their willingness to explore new ideas about reading and literacy strategies instruction when either they were successful in using the strategies they were learning, or they saw positive behaviors among their peers during reading and literacy engagements.

Teacher educators should consider how it is not enough for preservice teachers simply to learn about content area literacy strategies in university courses. Having experience through practice with literacy strategies in many forms is necessary for preservice teachers to make lasting changes in their predetermined beliefs. They need

opportunities to experience success that stems from their new learning of literacy strategies within the context of the university classroom.

Another implication for teacher educators is what instruction in university content area literacy courses would look like if literacy and content instruction were integrated in ways that retained both literacy and content goals and standards. As part of the study, I purposefully foregrounded the content area literacy course in disciplinary literacy. I wanted to explore what my instruction would look like if I integrated the content area literacy curriculum I had taught in previous years with current research in disciplinary literacy.

Doing this forced me to recognize the literacy-content dualism that exists in the majority of secondary content area classes (Draper, Smith, Hall, & Siebert, 2005). Research has shown that despite calls for reading and writing across the curriculum in secondary content area classes and university required courses, content area instruction in secondary schools tends to lack any type of literacy instruction (Alvermann & Moore, 1991; Stewart & O'Brien, 1989).

The findings of this study imply that educators of preservice teachers must purposefully structure both the instructional environment of the university classroom and the content of the content area literacy courses to combat this false dualism. Instead of learning about generic literacy strategies for reading and writing, preservice teachers must come to understand how texts and text usage vary depending on the content area and the disciplinary discourse (Gee, 1996) in which the text is situated. They also must come to understand how they will be positioned in their future classrooms to provide not

only content area instruction but also discipline-specific literacy instruction for their middle level students.

In the findings of this study, the members of the case group expressed beliefs which imply such understandings. All four members responded repeatedly with predictions of how they saw themselves as content area teachers incorporating discipline-specific literacy strategies into their instructional practices.

The study also revealed important implications for teacher educators about the role of disciplinary literacy in the content area literacy course. As noted by Richardson, Anders, Tidwell, and Lloyd (1991), “Programs in which theory is discussed and which focus on changing beliefs without proposing practices that embody those theories may lead to frustration” (p. 579).

Teacher educators interested in improving teacher preparation through content area literacy courses would do well to consider structuring the courses to reflect a collaborative stance between themselves and their students. In these courses, teacher educators would serve as literacy experts with the preservice teachers contributing content area knowledge and experience.

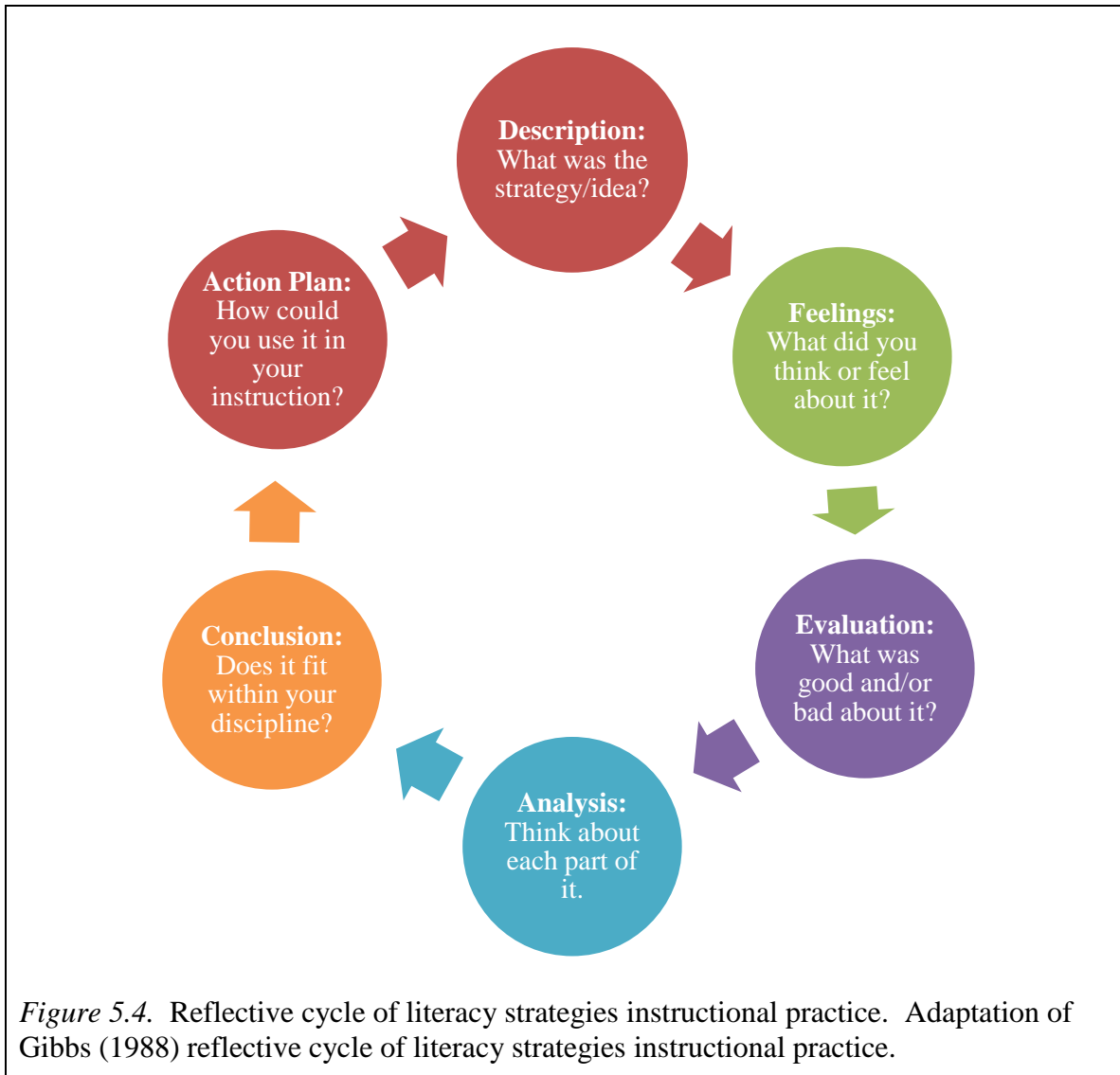
Through the reciprocal nature of teaching and learning, teacher educators and preservice teachers would co-construct a vision of what instruction that joined literacy strategies instruction with disciplinary demands would look like in future middle level content area classrooms. This vision would weave together preservice teachers’ beliefs and understandings of teaching and the reading process; theoretical frameworks and models of learning; and instructional practices reflective of literacy and disciplinary discourses.

Teacher Educators and Middle Level Preservice Teachers as Reflective Thinkers

The necessity for teacher educators to create university classroom conditions that promote and support preservice teachers as reflective thinkers is also implied by the findings of the study. It is through reflective thinking that preservice teachers become deeply in touch with their own literacy processes and recognize how knowing themselves as learners increases their understanding of how students learn (Graves, 1990; Robb, 2000). When preservice teachers build beliefs about the importance of reflective practice, they create pathways to the heart of teaching and learning (Hole & McEntee, 1999).

As I analyzed the data, I found many examples of the reflective thinking of the members of the case group within the context of the content area literacy course. Because they studied and understood the elements of reflective thinking (see Figure 5.4.), they deconstructed the strategies they used within the context of the course before deciding whether or not to add them to their “toolbox” of instructional practices.

Teacher educators have a responsibility to lead preservice teachers on an exploration of observing, thinking, and reflecting about the nature of learning and the art of teaching. It is critical for teacher educators to help preservice teachers see themselves as future reflective practitioners who “continually try to understand what they currently believe about learning, articulate to themselves and others why they believe what they do, and use teaching as a powerful tool to enhance student learning and promote their own growth” (Bintz & Dillard, 2007, p. 223).



Significance of the Study

I entered into this case study seeking to contribute to the larger body of similar research on the effects of university content area literacy courses on secondary preservice teachers' beliefs about reading and literacy practices in their future content area teaching. Because the data represented the thinking and beliefs of only one person per academic major (i.e., English/Language Arts; Mathematics; Science; Social Studies), their responses may have been highly unrepresentative of other preservice teachers' thinking and beliefs and do not lead to generalizations. However, the findings of the study reveal

convergent points of view among the members of the case group. These findings provide space for discussion on how preservice teachers' beliefs about disciplinary knowledge, teaching, reading, and literacy may be perceived across content areas.

The process for the preservice teachers in the case group to think reflectively about their new literacy learning in order to develop pedagogical beliefs was both individual and largely invisible. As Tolstoy (1903) wrote, "The relation of word to thought, and the creation of new concepts is a complex, delicate, and enigmatic process unfolding in our soul" (p. 143, as cited in Vygotsky, 1986). Reading the preservice teachers' written reflective responses and engaging in conversations and interviews with them became the most effective way for me to examine their thinking. In this way, I was able to contribute to existing studies of secondary preservice teachers' beliefs' about literacy across content areas and disciplines.

As a teacher education researcher, I believe an even greater purpose for this study is its contribution to the knowledge base of teacher educators. In discussing what propels teacher researchers forward, Hansen (1997) commented that "teacher researchers search for what is behind their success" (p. 3). I did not enter this study to conduct research simply for the sake of research. I wanted to examine those parts of my instruction in a university required content area literacy course that seemed to work well with middle level preservice teachers and share those experiences with other teacher educators. By conducting research in which I tried to understand why certain teaching techniques, strategies, and classes were successful, I learned more about myself as an instructor and about the ways preservice teachers perceived their success in the content area literacy course. By acknowledging the perceptions of the preservice teachers in this study,

teacher educators can consider methodology for their own content area literacy instruction that will duplicate those experiences with their university students. Teacher preparation programs may have more enduring value when teacher educators examine their own teaching practices and hold themselves accountable to teach preservice teachers effectively (Kropiewnicki, 2006).

This study is also significant for giving voice to the thinking and beliefs of the middle level preservice teachers. As I closely read their written reflective responses and had conversations with the case group members during the study, I developed a deeper respect for what they already knew about what counted as literacy in their various disciplines. Prior disciplinary knowledge of preservice teachers matters. It should be made visible when literacy skills and strategies are modeled and discussed in content area literacy courses. Disciplinary literacy practices are not new learning for preservice teachers who have already been inducted into discipline-specific ways of reading and writing based on their academic passions. What is new for preservice teachers is having time in content area literacy courses to reflect on whether or not certain reading and writing strategies are transportable or adaptable to their disciplines. By hearing and listening to the voices of the preservice teachers in this study, I was situated as a co-learner with my university students. The reciprocal nature of teaching and learning offered them respect for what they already knew. This study honors the voices of Kayla, Lauren, Megan, Josh, along with each of the other preservice teachers in the content area literacy course.

Future Research Questions

In addition to contributing to the growing knowledge base about preservice teachers and their beliefs about reading and literacy strategies instruction across content areas and disciplines, this study also suggests questions for further exploration and research. These questions are related to preservice teachers and teacher educators.

Preservice Teachers

- What are the differences between the pedagogical beliefs of preservice teachers enrolled in generic, “one-size-fits-all” content literacy courses and preservice teachers enrolled in content literacy courses that include disciplinary literacy practices and instructional strategies?
- How do preservice middle level teachers develop pedagogical beliefs about writing as a disciplinary literacy process across various content areas?
- As preservice teachers begin teaching internships in middle level classrooms, do they transfer predicted instructional practice into actual instructional practice?
- How can tutoring middle level students who struggle with reading in the content areas help preservice teachers develop more complex and deeper understandings of the reading process?
- When preservice teachers become inservice teachers, do they retain the beliefs they developed about themselves as teachers infusing literacy strategies into disciplinary content, and do they enact those beliefs in instructional practice?

- Is there a difference between preservice teachers' beliefs about reading and literacy when they are in the learning environment of the content area literacy classroom and later on in their program of study?

Teacher Educators

- How can teacher educators provide more authentic literacy learning engagements for preservice teachers to deepen their understanding of the role of reading in secondary content area classrooms?
- How can teacher educators structure the curriculum in content area literacy courses to include discipline-specific literacy strategies?
- How can literacy experts collaborate with disciplinary experts to create effective instruction for secondary education majors in university required literacy courses?

Conclusion

How university students transform their perceptions of themselves as students into perceptions of themselves as middle level teachers is highly individual and generally invisible. How they develop personal systems of beliefs about what constitutes effective reading and literacy practices in content area instruction is also highly individual and generally invisible. It becomes imperative for teacher educators to understand how to mentor university students during these particular, invisible processes. Such understanding develops as teacher educators closely read students' written reflective responses and closely listen to their reflective thoughts and conversations about new learning. The deeper teacher educators read and listen to their university students'

voices, the more evidence there is to discover about their emerging beliefs of teaching and learning.

This study became a way for me to provide a voice for the cognitive processes of these preservice middle level teachers. Through it, I shared the story of four university students in one section of a content area literacy course. It illustrated how they each wove their new learning about reading, literacy strategies instruction, student learning, and instructional practice into their disciplinary knowledge, creating a pattern of beliefs about becoming effective content area teachers.

I once read a quote by Sandra Day O'Connor in which she said, "We don't accomplish anything in this world alone...and whatever happens is the result of the whole tapestry of one's life and all the weavings of individual threads from one to another that creates something." As we worked together throughout this research study, both the preservice teachers and I developed deeper understandings of the significance of the role reflective thinking played during authentic learning engagements. Reflection became the pathway to their development of beliefs about effective reading and literacy practices. The findings highlighted the complex relationships that were created when educational theory, beliefs, and practice intersected, prompting preservice teachers to examine their predetermined beliefs in order to establish new ones.

Finally, the study underscores the importance of further research on teacher education and the effects of content area literacy instruction on the beliefs and predicted practices of preservice teachers.

REFERENCES

- Alger, C.L. (2007). Engaging student teachers' hearts and minds in the struggle to address (il)literacy in content area classrooms. *Journal of Adolescent & Adult Literacy, 50*(8), 620-630.
- Allen, J. (2002). *On the same page: Shared reading beyond the primary grades*. Portland, ME: Stenhouse.
- Allington, R. (2002). What I've learned about effective reading instruction from a decade of studying exemplary elementary classroom teachers. *Phi Delta Kappan, 83*(10), 740-747.
- Alvermann, D., Phelps, S.F., & Ridgeway, V.G. (2007). *Content area reading and literacy: Succeeding in today's diverse classrooms* (5th ed.). Boston, MA: Pearson.
- Alvermann, D.E., & Moore, D.W. (1991). Secondary school reading. In R. Barr, M.L. Kamil, P. Mosenthal, & P.D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 951-983). New York, NY: Longman.
- Alvermann, D.E., & Nealy, A. (2004). Professional development content for reading educators at the middle and high school levels. In D. Strickland & M. Kamil (Eds.), *Improving reading achievement through professional development* (pp. 85-93). Norwood, MA: Christopher-Gordon.
- Anders, P.L., & Guzzetti, B.J. (2005). *Literacy instruction in the content areas* (2nd ed.). Mahway, NJ: Lawrence Erlbaum Associates.

- Association for Middle Level Education. (2013). *This we believe: Keys to educating young adolescents*. Retrieved from http://www.amle.org/portals/0/pdf/twb/TWB_StudyGuide_Aug2013.pdf
- Atkinson, P. & Hammersley, M. (1983). Ethnography and participant observation. In N.K. Denzin & Y.S. Lincoln (Eds.), *The SAGE handbook of qualitative research*, (pp. 248-262). Thousand Oaks, CA: Sage Publications.
- Atwell, N. (1998). *In the middle: New understandings about writing, reading, and learning* (2nd ed.). Portsmouth, NH: Heinemann.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Barell, J. (1995). *Teaching for thoughtfulness*. White Plains, NY: Longman.
- Barnhouse, D. & Vinton, V. (2012). *What readers really do: Teaching the process of meaning making*. Portsmouth, NH: Heinemann.
- Barone, D.M. (2004). Case-study research. In N.K. Duke & M.H. Mallette (Eds.), *Literacy research methodologies* (pp. 7-27), New York, NY: The Guilford Press.
- Barton, D. & Hamilton, M. (1998). *Local literacies: Reading and writing in one community*. London, England: Routledge.
- Barton, M.L., & Heidema, C. (2002). *Teaching reading in mathematics* (2nd ed.). Aurora, CA: Mid-continent Research for Education and Learning.
- Barton, M.L., Heidema, C., & Jordan, D. (2002). Using literature to support mathematical thinking in middle school. *Middle School Journal*, 34(2), 25-32.
- Bean, T. (1994). A constructivist view of preservice teachers' attitudes toward reading through case study analysis of autobiographies. In C.K. Kinzer & D. Lew (Eds.),

- Multicultural aspects of literacy research, theory, and practice* (pp. 370-379).
Chicago, IL: National Reading Conference.
- Bean, T.W., & Harper, H.J. (2004). Teacher education and adolescent literacy. In T.L. Jetton & J.A. Dole (Eds.), *Adolescent literacy research and practice* (pp. 392-411). New York, NY: The Guilford Press.
- Beers, K. (2003). *When kids can't read what teachers can do: A guide for teachers 6-12*.
Portsmouth, NH: Heinemann.
- Beers, K., Probst, R.E., Reif, L. (Eds.). (2007). *Adolescent literacy: Turning promise into practice*. Portsmouth, NH: Heinemann.
- Berger, A. (1989). Ways of activating prior knowledge for content area reading. In D. Lapp, J. Flood, & N. Farnan (Eds.), *Content area reading and learning: Instructional strategies* (pp. 118-121). Englewood Cliffs, NJ: Prentice-Hall.
- Bernstein, B. (1974). *Class, codes, and control* (Vol. 1, 2nd ed.). London, England:
Routledge and Kegan Paul.
- Bernstein, B. (1977), Class and pedagogies: Visible and invisible. In J. Karabel and A.H. Halsey (Eds.), *Power and ideology in education*. New York, NY: Oxford University Press.
- Bintz, W. P. (1997). Exploring reading nightmares of middle and secondary school teachers. *Journal of Adolescent and Adult Literacy*, 41(1), 12-24.
- Bintz, W.P., & Dillard, J. (2007). Teachers as reflective practitioners: Examining teacher stories of curricular change in a 4th grade classroom. *Reading Horizons Journal*, 47(3), 203-227.

- Blanton, M.L., Berenson, S.B., Norwood, K.S. (2001). Using classroom discourse to understand a prospective mathematics teachers developing practice. *Teaching and Teacher Education, 17*, 227-242.
- Bogdan, R.C., & Biklen, S.K. (1998). *Qualitative research for education: An introduction to theory and methods* (3rd ed.). New York, NY: Pearson.
- Bourdeau, P., & Passeron, J.C. (1990). *Reproduction in education, society and culture* (2nd ed.). London, England: Sage Publications.
- Brown, C.A., & Cooney, T.J. (1982). Research on teacher education: A philosophical orientation. *Journal of Research and Development in Education, 15*(4), 13-18.
- Brown, D. (1999). Promoting reflective thinking: Preservice teachers' literacy autobiographies as a common text. *Journal of Adolescent and Adult Literacy, 42*(5), 402-410.
- Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Bryan, L.A., & Tippins, D. J. (2005). The Monets, Van Goghs, and Renoirs of science education: Writing impressionist tales as a strategy for facilitating prospective teachers' reflections on science experiences. *Journal of Science Teacher Education, 16*(3), 227-239.
- Buchmann, M. (1987). Teaching knowledge: The lights that teachers live by. *Oxford Review of Education, 13*(2), 151-164.
- Buehl, D. (2009). Mentoring literacy practices in academic disciplines. In S.R. Parris, D. Fisher, and K. Headley (Eds.), *Adolescent literacy, field tested: Effective solutions for every classroom* (pp. 228-238). Newark, DE: International Reading Association.

- Buehl, D. (2011). *Developing readers in the academic disciplines*. Newark, DE: International Reading Association.
- Buehl, D., & Moore, D. (2009). Linking research to practice in disciplinary literacy. *Journal of Adolescent and Adult Literacy*, 52(6), 535-537.
- Caine, R., & Caine, G. (1997). *Education on the edge of possibility*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Calkins, L., Ehrenworth, M., & Lehman, C. (2012). *Pathways to the Common Core: Accelerating achievement*. Portsmouth, NH: Heinemann.
- Cambourne, B. (1988). *The whole story: Natural learning and the acquisition of literacy in the classroom*. New York, NY: Scholastic.
- Cambourne, B. (1995). Toward an educationally relevant theory of literacy learning: Twenty years of inquiry. *The Reading Teacher*, 49(3), 182-190.
- Cambourne, B. (2000/2001). Conditions for literacy learning. *The Reading Teacher*, 54(8), 784-786.
- Cambourne, B. (2002). The conditions of learning: Is learning natural? *The Reading Teacher*, 55(8), 758-762.
- Cambourne, B., & Turbill, J. (2007). Looking back to look forward: Understanding the present by revisiting the past: An Australian perspective. *International Journal of Progressive Education*, 3(2), 8-29.
- Cambria, J., & Guthrie, J.T. (2010). Motivating and engaging students in reading. *New England Reading Association Journal*, 46(1), pp. 16-29.
- Cardarelli, A. F. (1992). Teachers under cover: Promoting the personal reading of teachers. *The Reading Teacher*, 45, 664-668.

- Carter, K. (1993). The place of story in the study of teaching and teaching education. *Educational Researcher*, 22, 5-12.
- Cazden, C. (1986). Classroom discourse. In M.C. Wittrock (Ed.), *Handbook of research in teaching* (3rd ed.). New York, NY: MacMillan.
- Cochran-Smith, M., & Lytle, S. L. (1993). Research on teaching and teacher research: The issues that divide. In M. Cochran-Smith & S.L. Lytle (Eds.), *Inside/Outside: Teacher research and knowledge*. New York, NY: Teachers College Press.
- Coffin, C. (2002). The voices of history: Theorizing the interpersonal semantics of historical discourses. *Text* 22(4), 505-528.
- Colby, S.A., & Atkinson, T.S. (2004). Assisting performance in teaching and learning. *Teaching Education*, 15(4), 351-362.
- Condon, M.W.F., Clyde, J.A., Kyle, D.W., & Hovda, R.A. (1993). A constructivist basis for teaching and teacher education: A framework for program development and research on graduates. *Journal of Teacher Education*, 44(4), 263-272.
- Conley, M. (2008). Cognitive strategy instruction for adolescents: What we know about the promise, what we don't know about the potential. *Harvard Educational Review*, 78(1), 84-106.
- Conley, M.W. (2012). Foregrounding the disciplines for teacher preparation in secondary literacy. *Journal of Adolescent & Adult Literacy*, 56(2), 141-150.
- Cope, B., & Kalantzis, M. (Eds.). (2000). *Multiliteracies: Literacy learning and the design of social futures*. New York, NY: Routledge.
- Costa, A.L., & Garmston, R.J. (1994). *Cognitive coaching: A foundation for Renaissance schools*. Norwood, MA: Christopher-Gordon.

- Creswell, J.W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage
- Creswell, J.W. (2007). *Qualitative inquiry and research design: Choosing among five traditions* (2nd ed.). Thousand Oaks, CA: Sage.
- Cunliffe, A.L. (2004). On becoming a critically reflexive practitioner. *Journal of Management Education*, 28(4), 407-426.
- D'Arcangelo, M. (2002, November). The challenge of content-area reading: A conversation with Donna Ogle. *Educational Leadership*, 12-15.
- Daisey, P. (2009). The reading experiences and beliefs of secondary pre-service teachers. *Reading Horizons*, 49(2), 167-190.
- Daisey, P. (2010). Secondary preservice teachers remember their favorite reading experiences: Insights and implications for content area instruction. *Journal of Adolescent & Adult Literacy*, 53(8), 678-687.
- Daniels, H. & Steineke, N. (2013). *Texts and lessons for teaching literature*. Portsmouth, NH: Heinemann.
- Daniels, H. & Zemelman, S. (2004/2014). *Subjects matter: Exceeding standards through powerful content-area reading* (2nd ed.). Portsmouth, NH: Heinemann.
- De La Paz, S. (2005). Effects of historical reasoning instruction and writing strategy mastery in culturally and academically diverse middle school classrooms. *Journal of Educational Psychology*, 97(2), 139-156.
- Denzin, N. (1989). *Interpretive biography*. Newbury Park, CA: Sage.
- Deshler, D.D., & Schmaker, J.B. (1993). Strategy mastery by at-risk students: Not a simple matter. *The Elementary School Journal*, 94, 153-167.

- Dewey, J. (1934). *Art as experience*. New York, NY: Perigee.
- Dewey, J. (1938). *Experience and education*. New York, NY: Simon and Schuster.
- Dignath-van Ejwjk, C., & van der Werf, G. (2012). What teachers think about self-regulated learning: Investigating teacher beliefs and teacher behavior of enhancing students' self-regulation. *Education Research International*, 2012, 1-10.
- Dixon-Kraus, L. (1996). *Vygotsky in the classroom*. White Plains, NY: Longman Publishers.
- Dixon-Kraus, L.A. (1995). Partner reading and writing: Peer social dialogue and the zone of proximal development. *Journal of Reading Behavior*, 27(1), 45-63.
- Donahue, D.M. (2000). Experimenting with texts: New science teachers' experience and practice as readers and teachers of reading. *Journal of Adolescent & Adult Literacy*, 43(8), 728-739.
- Draper, R.J. (2002). Every teacher a literacy teacher? An analysis of the literacy-related messages in secondary methods textbooks. *Journal of Literacy Research*, 34(3), 357-384.
- Draper, R.J. (2008). Redefining content-area teacher literacy education: Finding my voice through collaboration. *Harvard Educational Review*, 78(1), 60-83.
- Draper, R.J., & Adair, M. (2010). (Re)Imagining literacies for science classrooms. In R.J. Draper, P. Broomhead, A.P. Jensen, J.D. Nokes, & D. Siebert (Eds.), *(Re)Imagining content-area literacy instruction* (pp. 127-143). New York, NY: Teachers College Press.

- Draper, R.J., & Siebert, D. (2010). Rethinking texts, literacies, and literacy across the curriculum. In R.J. Draper, P. Broomhead, A.P. Jensen, J.D. Nokes, & D. Siebert (Eds.), *(Re)Imagining content-area literacy instruction* (pp. 20-39). New York, NY: Teachers College Press.
- Draper, R.J., Broomhead, P., Jensen, A.P., Nokes, J.D., & Siebert, D. (Eds.). (2010) *(Re)Imagining content-area literacy instruction*. New York, NY: Teachers College Press.
- Draper, R.J., Smith, L.K., Hall, K.M., & Siebert, D. (2005). What's more important— literacy or content? Confronting the literacy-content dualism. *Action in Teacher Education*, 27(2), 12-21.
- Duffy, F.N. (2003). I think, therefore I am resistant to change. *Journal of Staff Development*, 24(1), 30-36.
- Duke, N.K., & Pearson, P.D. (2002). Effective practices for developing reading comprehension. In A.E. Farstrup & S.J. Samuels (Eds.), *What research has to say about reading instruction* (3rd ed., pp. 205-242). Newark, DE: International Reading Association.
- Dylan, B. (1963). The times they are a-changin.' On *The times they are a-changin.'* Burbank, CA: Warner Bros. Inc.
- Dyson, A.H., & Genishi, C. (2005). *On the case: Approaches to language and literacy research*. New York, NY: Teachers College Press.
- Edwards, D. (2009). Tracing literacy journeys: The use of the literacy autobiography in preservice teacher education. *Australian Journal of Teacher Education* 34(4), 51-61.

- Eisner, E.W. (1998). *The enlightened eye: Qualitative inquiry and the enhancement of educational practice*. Upper Saddle River, NJ: Merrill.
- Erickson, F. (1986). Qualitative methods in research on teaching. In M.C. Wittrock (Ed.), *Handbook of research in teaching* (3rd ed.). New York, NY: MacMillan.
- Ernest, P. (1989). The knowledge, beliefs, and attitudes of the mathematics teacher: A model. *Journal of Education for Teaching*, 15, 13-34.
- Eun, B. (2010). From learning to development: A sociocultural approach to instruction. *Cambridge Journal of Education*, 40(4), 401-418.
- Evertson, C.M., & Green, J.L. (1986). Observation as inquiry and method. In M.C. Wittrock (Ed.), *Handbook of research in teaching* (3rd ed.). New York, NY: MacMillan.
- Faggella-Luby, M.N., Ware, S.M., & Capozzoli, A. (2009). Adolescent literacy—reviewing adolescent literacy reports: Key components and critical questions. *Journal of Literacy Research*, 41(4), 453-475.
- Fisher, D., & Ivey, G. (2005). Literacy and language as learning in content-area classes: A departure from “every teacher a teacher of reading.” *Action in Teacher Education*, 277(2), 3-11.
- Fountas, I.C., & Pinnell, G. S. (2012). Guided reading: The romance and the reality. *The Reading Teacher*, 66(4), 268-284.
- Freidland, E.S., McMillen, S.E., & del Prado Hill, P. (2011). Collaborating to cross the literacy-mathematics divide: An annotated bibliography of literacy strategies for mathematics classrooms. *Journal of Adolescent & Adult Literacy*, 55(1), 57-66.
- Freire, P. (1985). *The politics of education*. South Hadley, MA: Bergin & Garvey.

- Freire, P. (2000). *Pedagogy of the oppressed* (M.B. Ramos, Trans.). New York, NY: Continuum. (Originally published in 1970)
- Fried, R.L. (1995/2001). *The passionate teacher: A practical guide*. Boston, MA: Beacon.
- Gallagher, K. (2004). *Deeper reading: Comprehending challenging texts, 4-12*. Portland, ME: Stenhouse.
- García, G., Pearson, P., Taylor, B., Bauer, E., Stahl, K., Garcia, G. (2011). Socio-constructivist and political views on teachers' implementation of two types of reading comprehension approaches in low-income schools. *Theory into Practice*, 50(2), 149-156.
- Gee, J. (1996). *Social linguistics and literacies: Ideology in discourses* (2nd ed.). London, England: Routledge Falmer.
- Gee, J. (1999). *An introduction to discourse analysis: Theory and method*. New York, NY: Routledge.
- Gee, J. (2000). Discourse and sociocultural studies in reading. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 195-207). Mahwah, NJ: Erlbaum.
- Gibbs, G. (1988). *Learning by doing*. Manila, Philippines: FEU.
- Gillies, R. (2005). The effects of communication training on teachers' and students' verbal behaviors during cooperative learning. *International Journal of Educational Research*, 41, 257-279.
- Gillies, R. (2007). *Cooperative learning: Integrating Theory and Practice*. Thousand Oaks, CA: Sage.

- Gillies, R., & Boyle, M. (2008). Ten Australian elementary teachers' discourse and reported pedagogical practices during cooperative learning. *Elementary Journal*, 106(5), 429-451.
- Glaser, B.G., & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New Brunswick, NJ: Aldine Transaction.
- Glesne, C. (2006). *Becoming qualitative researchers: An introduction* (3rd ed.). Boston, MA: Pearson.
- Glesne, C., & Peshkin, A. (1992). *Becoming qualitative researchers: An introduction*. White Plains, NY: Longman.
- Good, K. (2011). Intersections of educational psychology and the teaching of reading: Connections to the classroom. In J.B. Cobb & M.K. Kallus (Eds.). *Historical, theoretical, and sociological foundations of reading in the United States* (pp. 165-173). Boston, MA: Pearson.
- Goodenough, W.H. (1963). *Cooperation in change*. New York, NY: Russell Sage Foundation.
- Graves, D. (1990). *Discover your own literacy*. Portsmouth, NH: Heinemann.
- Graves, D. (2001). *The energy to teach*. Portsmouth, NH: Heinemann.
- Greenleaf, C., Jimenez, R., & Roller, C. (2002). Conversations: Reclaiming secondary reading interventions: From limited to rich conceptions, from narrow to broad conversations. *Reading Research Quarterly*, 37(4), 484-496.
- Grierson, S., & Nokes, J.D. (2010). (Re)Imagining literacies in English language arts classrooms. In R.J. Draper, P. Broomhead, A.P. Jensen, J.D. Nokes, & D. Siebert

- (Eds.), *(Re)Imagining content-area literacy instruction* (pp. 113-126). New York, NY: Teachers College Press.
- Gritter, K. (2010). Insert student here: Why content area constructions of literacy matter for pre-service teachers. *Reading Horizons, 50*(3), 147-167.
- Guba, E.G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Resources Information Center Annual Review Paper, 27*, 75-91.
- Guskey, T.R. (1986). Staff development and the process of teacher change. *Educational Researcher, 15*(5), 5-12.
- Gutierrez, K.D. (1994). How talk, context, and script shape contexts for learning: A cross-case comparison of journal sharing. *Linguistics and Education, 5*, 335-365.
- Hall, L.A. (2005). Teachers and content area reading: Attitudes, beliefs and change. *Teaching and Teacher Education, 21*(4), 403-414.
- Halliday, M.A.K. (1993). Towards a language-based theory of learning. *Linguistics and Education, 5*, 93-116.
- Halliday, M.A.K., & Martin, J.R. (1993). *Writing science: Literacy and discursive power*. Pittsburg, PA: University of Pittsburg Press.
- Hansen, J. (1997). Researchers in our own classrooms: What propels teacher researchers? In D. Leu, C. Kinzer, & K. Hinchman (Eds.), *Literacies for the 21st century: Research and practice* (pp. 1-14). Chicago, IL: National Reading Conference.
- Harste, J.C., & Burke, C.L. (1977). A new hypothesis for reading teacher education research: Both the teaching and learning of reading are theoretically based. In P.D. Pearson (Ed.), *Reading: Research, theory and practice* (Twenty-sixth

- Yearbook of the National Reading Conference). Minneapolis, MN: Mason Publishing Company.
- Harste, J.C., Woodward, V.A., & Burke, C.L. (1984). *Language stories and literacy lessons*. Portsmouth, NH: Heinemann.
- Harvey, S., & Daniels, H. (2009). *Comprehension & collaboration: Inquiry circles in action*. Portsmouth, NH: Heinemann.
- Harvey, S., & Goudvis, A. (2007). *Strategies that work: Teaching comprehension for understanding and engagement* (2nd ed.). Portland, ME: Stenhouse.
- Hatch, J.A. (2002). *Doing qualitative research in education settings*. Albany, NY: State University of New York Press.
- Hennings, D.G. (2000). *Communication in action: Teaching literature-based language arts*. Boston, MA: Houghton-Mifflin.
- Henson, R.K. (2001, January). *Teacher self-efficacy: Substantive implications and measurement dilemmas*. Paper presented at the meeting of the Educational Research Exchange, Texas A&M University, College Station, Texas.
- Hole, S., & McEntee, G.H. (1999). Reflection is at the heart of practice. *Educational Leadership*, 56(8), 34-37.
- Johnson, K.E. (2009). *Second language teacher education: A sociocultural perspective*. New York, NY: Routledge.
- Kagan, D.M. (1992). Implications of research on teacher beliefs. *Educational Psychologist*, 27(1), 65-90.

- Keene, E.O. (2007). The essence of understanding. In K. Beers, R.E. Probst, & L. Reif, (Eds.), *Adolescent literacy: Turning promise into practice* (pp. 27-38).
Portsmouth, NH: Heinemann.
- Keene, E.O. (2008). *To understand: New horizons in reading comprehension*.
Portsmouth, NH: Heinemann.
- Keene, E.O., & Zimmerman, S. (1997). *Mosaic of thought: Teaching comprehension in a reader's workshop*. Portsmouth, NH: Heinemann.
- King, A. (2002). Structuring peer interaction to promote high-level cognitive processing. *Theory Into Practice, 41*, 33-40.
- King, A., Staffieri, A., Adelgais, A. (1998). Mutual peer tutoring: Effects of structuring tutorial interaction to scaffold peer learning. *Journal of Educational Psychology, 90*, 134-152.
- Kise, J.A.G. (2006). *Differentiated coaching: A framework for helping teachers change*.
Thousand Oaks, CA: Corwin Press.
- Klinger, J.K., Vaughn, S., Arguelles, M.E., Hughes, M.T., & Leftwich, S.A. (2004). Collaborative strategic reading: "Real-world" lessons from classroom teachers. *Remedial and Special Education, 25*, 291-302.
- Klinger, J.K., Vaughn, S., Hughes, M.T., & Arguelles, M.E. (1999). Sustaining research-based practices in reading: A 3-year follow-up. *Remedial and Special Education, 20*, 263-274.
- Kolb, D.A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.

- Konopak, B., & Williams, N. L. (1994). Elementary teachers' beliefs and decisions about vocabulary learning and instruction. In C. K. Kinzer & D. J. Leu (Eds.), *Multidimensional aspects of literacy research, theory and practice: Forty-third yearbook of the National Reading Conference* (pp. 485-495). Chicago: National Reading Conference.
- Krefting, L. (1990). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy*, 45(3), 214-222.
- Kropiewnicki, M. (2006, April). *An investigation of effective instructional methods to train preservice teachers in reading comprehension strategies*. A paper presented at the meeting of the American Educational Research Association, San Francisco, CA.
- Langer, J.A. (2001). Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal*, 38(4), 837-880.
- Lankshear, C. & Knobel, M. (2004). *Planning pedagogy for i-mode: Some principles for pedagogical decision-making*. Paper presented at the Annual Meeting of the American Education Research Association, San Diego, CA, April 14, 2004.
- Lapp, D., & Flood, J. (1978). *Teaching reading to every child*. New York, NY: Macmillan Publishing Co., Inc.
- Larson, J. & Marsh, J. (2005). *Making literacy real*. London: Sage Publications.
- Lee, C.D. (2004, Winter/Spring). Literacy in the academic disciplines and the needs of adolescent struggling readers. *Voices in Urban Education (VUE)*, 14-19.
- Lee, C.D., & Spratley, A. (2010). *Reading in the disciplines: The challenges of adolescent literacy*. New York, NY: Carnegie Corporation of New York.

- Lefstein, A., & Snell, J. (2012). Classroom discourse: The promise and complexity of dialogic practice. In S. Ellis, E. McCartney, & J. Bourne (Eds.), *Applied Linguistics and Primary School Teaching* (pp.165-185). Cambridge, UK: Cambridge University Press.
- Lemke, J.L. (1990). *Talking science: Language, learning, and values*. Norwood, NJ: Ablex.
- Leontyev, A.N. (1981). *Problems of the development of the mind*. Moscow, USSR: Progress Publishers. (Translated from the Russian.)
- Lesesne, T.S. (2006). *naked reading: Uncovering what tweens need to become lifelong readers*. Portland, ME: Stenhouse.
- Lesesne, T.S. (2010). *Reading ladders*. Portsmouth, NH: Heinemann.
- Lesley, M. (2005). Looking for critical literacy with postbaccalaureate content area literacy students. *Journal of Adolescent and Adult Literacy*, 48, 320-334.
- Lesley, M. (2011). Understanding resistance: Preservice teachers' Discourse models of struggling readers and school literacy tasks. *Journal of Adolescent & Adult Literacy*, 55(1), 25-34.
- Levstik, L.S. (2008). What happens in social studies classrooms? Research on K-12 social studies practice. In L.S. Levstik & C.A. Tyson (Eds.), *Handbook of research in social studies education* (pp.50-64). New York, NY: Routledge.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- Lindfors, J.W. (1991). *Children's language and learning* (2nd ed.). Needham Heights, MA: Allyn and Bacon.

- Linek, W.M., Sampson, M.B., Raine, I.L., Klakamp, K., & Smith, B. (2006).
Development of literacy beliefs and practices: Preservice teachers with reading specializations in a field-based program. *Reading Horizons*, 46(3), 183-213.
- Lortie, D. (1975). *Schoolteacher*. Chicago, IL: The University of Chicago Press.
- Lysynchuk, L. M., Pressley, M., D'Ailly, H., Smith, M., & Cake, H. (1989). A methodological analysis of experimental studies of comprehension strategy instruction. *Reading Research Quarterly*, 24(4), 458-470.
- Malberg, L.E., & Hagger, H. (2009). Changes in student teachers' agency beliefs during a teacher education year, and relationships with observed classroom quality, and day-to-day experiences. *British Journal of Educational Psychology*, 79, 677-694.
- Mantero, M. (2002). *Scaffolding revisited: Sociocultural pedagogy within the foreign language classroom*. Retrieved from Education Resources Information Center (ERIC) database. (ERIC Document No ED459623).
- Marshall, C, & Rossman, G.B. (2006). *Designing qualitative research* (4th ed.). Thousand Oaks, CA: Sage Publications.
- Mason, L. (2007). Introduction: Bridging the cognitive and sociocultural approaches in research on conceptual change: Is it feasible? *Educational Psychologist*, 42(1), 1-7.
- McCarthy, S.J., & Moje, E.B. (2002). Identity matters. *Reading Research Quarterly*, 37(2), 228-238.
- McKenna, M.C., & Robinson, R.D. (2009/2014). *Teaching through text: Reading and writing in the content areas* (2nd ed.). Boston, MA: Pearson.

- McLaughlin, M., & Allen, M.B. (2009). *Guided comprehension in grades 3-8*. Newark, DE: International Reading Association.
- Mercer, N., Dawes, L., Wegerif, R., & Sams, C. (2004). Reasoning as a scientist: Ways of helping children to use language to learn science. *British Educational Research Journal*, 30(3), 359-377.
- Merriam, S. (1988). *Case-study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass.
- Merriam, S.B. (2001). *Qualitative research and case study applications in education*. San Francisco, CA: John Wiley & Sons.
- Merriam, S.B. (2009). *Qualitative research: A guide to design and implementation* (2nd ed.). San Francisco, CA: Josey-Bass.
- Meyer, R.J. (1993, December). *Preservice teachers' literacy autobiographies and teacher development*. Paper presented at the meeting of the National Reading Conference, Charleston, SC.
- Miles, M., & Huberman, A. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Newbury Park, CA: Sage Publications.
- Moje, E.B. (1996). "I teach students, not subjects": Teacher-student relationships as contexts for secondary literacy. *Reading Research Quarterly*, 31, 172-195.
- Moje, E.B. (2007). Developing socially just subject-matter instruction: A review of the literature on disciplinary literacy. In N.L. Parker (Ed.), *Review of research in education* (pp. 1-44). Washington, DC: American Educational Research Association.

- Moje, E. B. (2008a). Foregrounding the disciplines in secondary literacy teaching and learning: A call for change. *Journal of Adolescent & Adult Literacy*, 52(2), 96-107.
- Moje, E.B. (2008b). Responsive literacy teaching in secondary school content areas. In M.W. Conley, J. R. Friedhoff, M. B.Sherry, & S.F. Tuckey (Eds.), *Meeting the challenge of adolescent literacy* (pp. 58-87). New York, NY: Guilford Press.
- Moje, E.B., Stockdill, D., Kim, K., & Kim, H. (2011). The role of text in disciplinary learning. In M.L. Kamil, P.D. Pearson, E.B. Moje, & P.P. Afflerbach (Eds.), *Handbook of reading research* (Vol. 4, pp. 453-486). New York, NY: Routledge.
- Moore, D.W. (1996). Contexts for literacy in secondary schools. In D. J. Leu, C.K. Kinzer, & K.A. Hinchman (Eds.), *Literacies for the twenty-first century: Research and practice* (pp. 15-46). Chicago, IL: National Reading Conference.
- Moore, D.W., Moore, S.A., Cunningham, P.M, & Cunningham, J.W. (2011). *Developing readers and writers in the content areas K-12* (6th ed.). Boston, MA: Allyn & Bacon.
- National Council of Teachers of English (NCTE). (2007). *NCTE principles of adolescent literacy reform: A policy research brief*. Retrieved from www.ncte.org/library/NCTEFiles//Resources/PolicyResearch/AdolLitResearchBrief.pdf
- National Governors Association Center for Best Practices (NGA Center) and Council of Chief State School Officers (CCSSO). (2010). *Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects*. Washington, DC: NGA Center and CCSSO.

- Ness, M.K. (2009). Reading comprehension strategies in secondary content area classroom: Teacher use of and attitudes toward reading comprehension instruction. *Reading Horizons*, 49(2), 143-166.
- Newman, D., Griffin P., and Cole, M. (1989). *The construction zone: Working for cognitive change in schools*. Cambridge, England: Cambridge University Press.
- Newmann, F.M., & Wehlage, G.G. (1993). Fiver standards for authentic instruction. *Educational Leadership*, 50(7), 8-12.
- Nieto, S. (2002). *Language, culture, and teaching*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Nuthall, G. (1997). Understanding student thinking and learning in the classroom. In B.J. Biddle, T.C. Good, and I. Goodson (Eds.), *The International Handbook of Teachers and Teaching* (Vol. 2, pp. 681-768). Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Nystrand, M. (2006). Research on the role of classroom discourse as it affects reading comprehension. *Research in the Teaching of English*, 40, 392-412.
- O'Brien, D., & Stewart, R. (1990). Preservice teachers' perspectives on why every teacher is not a teacher of reading: A qualitative analysis. *Journal of Reading Behavior*, 22(2), 101-129.
- Pajares, M.F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307-332.
- Pajares, F. (1993, Summer). Preservice teachers' beliefs: A focus for teacher education. *Action in Teacher Education*, 75(2), 45-54.

- Palincsar, A. S. (1998). Social constructivist perspectives on teaching and learning. *Annual Review of Psychology, 49*, 345-375.
- Palincsar, A.S., & Herrenkhol, L. (2002). Designing collaborative contexts. *Theory into Practice, 41*, 26-35.
- Palincsar, A.S., & Schutz, K.M. (2011). Reconnecting strategy instruction with its theoretical roots. *Theory into Practice, 50*(2), 85-92.
- Patton, M. (1990). *Qualitative evaluation and research methods* (2nd ed.). Newbury Park, CA: Sage.
- Pearson, P.D. (2009). The roots of reading comprehension instruction. In S.E. Israel & G.G. Duffy (Eds.), *Handbook of research on reading comprehension* (pp. 3-31). New York, NY: Routledge.
- Pollner, M. (1991). Left of ethnomethodology: The rise and decline of radical reflexivity. *American Sociological Review, 56*, 370-380.
- Pressley, M. (1998). *Reading instruction that works: The case for balanced teaching*. New York, NY: Guilford.
- Pressley, M., & El-Dinary, P.B. (1997). What we know about translating comprehension strategies instruction research into practice. *Journal of Learning Disabilities, 30*, 486-488.
- Pressley, M., & Wharton-McDonald, R. (2006). The need for increased comprehension instruction. In M. Pressley (Ed.), *Reading Instruction That Works: The Case for Balanced Teaching* (3rd ed., pp. 293-346). New York, NY: The Guilford Press.
- Probst, R.E. (2004). *Response and analysis: Teaching literature in secondary school* (2nd ed.). Portsmouth, NH: Heinemann.

- Purcell-Gates, V. (2004). Ethnographic research. In N.K. Duke & M.H. Mallette (Eds.), *Literacy research methodologies* (pp. 92-113). New York, NY: Guilford Press.
- Pytash, K.E. (2012). Engaging preservice teachers in disciplinary literacy learning through writing. *Journal of Adolescent and Adult Literacy*, 55(6), 527-538.
- Ray, K.W. (1999). *Wondrous words: Writers and writing in the elementary classroom*. Urbana, IL: National Council of Teachers of English.
- Ray, K.W. (2001). *The writing workshop: Working through the hard parts (and they're all hard parts)*. Urbana, IL: National Council of Teachers of English.
- Richardson, V., Anders, P., Tidwell, D., & Lloyd, C. (1991). The relationship between teachers' beliefs and practices in reading comprehension instruction. *American Educational Research Journal*, 28(3), 559-586.
- Robb, L. (2000). *Redefining staff development: A collaborative model for teachers and administrators*. Portsmouth, NH: Heinemann.
- Roe, M., & Vukelich, C. (1998). Literacy histories: Categories of influence. *Reading Research & Instruction*, 37, 281-295.
- Rogoff, B. (1994). Developing understanding of the idea of communities of learners. *Mind, Culture, and Activity*, 1(4), 209-229.
- Rosenblatt, L.M. (1978). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale, IL: Southern Illinois University Press.
- Rosenblatt, L.M. (1995). *Literature as exploration*. New York, NY: The Modern Language Association of America. (First published 1938)
- Rosenblatt, L.M. (2005). *Making meaning with texts: Selected essays*. Portsmouth, NH: Heinemann.

- Rosenshine, B. & Meister, C. (1994). Reciprocal teaching: A review of the research. *Review of Educational Research*, 64(4), 479-530.
- Rosenshine, B., Meister, C., & Chapman, S. (1996). Teaching students to generate questions: A review of the intervention studies. *Review of Educational Research*, 66(2), 181-221.
- Rushton, S.P. (2001). Applying brain research to create developmentally appropriate learning environments. *Young Children*, 56(5), 76-82.
- Rushton, S.P., Eitelgeorge, J., & Zickafoose, R. (2003). Connecting Brian Cambourne's conditions of learning theory to brain/mind principles: Implications for early childhood educators. *Early Childhood Education Journal*, 31(1), 11-21.
- Rylant, C. (1996). *Margaret, Frank, and Andy: Three writers' stories*. San Diego, CA: Harcourt.
- Salomon, G., Globerson, T., & Guterman, E. (1989). The computer as a zone of proximal development: Internalizing reading-related metacognitions from a reading partner. *Journal of Educational Psychology*, 81(4), 620-627.
- Sandoval, W.A., Daniszewski, K., Spillane, J.P., & Reiser, B.J. (1999). *Teachers' discourse strategies for supporting learning through inquiry*. A paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Scharlach, T.D. (2008). These kids just aren't motivated to read: The influence of preservice teachers' beliefs on their expectations, instruction, and evaluation of struggling readers. *Literacy Research and Instruction*, 47, 158-173.

- Schleppegrell, M.J. (2004). *The language of schooling: A functional linguistic perspective*. Mahway, NJ: Lawrence Erlbaum Associates.
- Schoenfeld, A.H. (1998). Making mathematics and making pasta from cookbook procedures to really cooking. In J.G. Greeno & S.V. Goldman, (Eds.), *Thinking practices in mathematics and science learning*. Mahwah, NJ: Lawrence Erlbaum.
- Schon, D.A. (1992). The theory of inquiry: Dewey's legacy to education. *Curriculum Inquiry*, 22(2), 119-139.
- Scott, C., & Palincsar, A. (2013). *Sociocultural theory*. The Gale Group. Retrieved from <http://www.education.com/reference/article/sociocultural-theory/>
- Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2000). *Schools that learn*. New York, NY: Doubleday.
- Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content-area literacy. *Harvard Educational Review*, 78(1), 40-59.
- Shenton, A.K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22, 63-75.
- Short, K., Harste, J., Burke, C. (1997). *Creating classrooms for authors and inquirers*. Portsmouth, NH: Heinemann.
- Shulman, L. (1986). Paradigms and research programs in the study of teaching: A contemporary perspective. In M.C. Wittrock (Ed.), *Handbook of research in teaching* (3rd ed.). New York, NY: MacMillan.
- Shulman, L.S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57, 1-22.

- Smith, F. (1994). *Understanding reading: A psycholinguistic analysis of reading and learning to read* (5th ed.). New York, NY: Holt, Rinehart & Winston.
- Smith, F. (2006). *Reading without nonsense* (4th ed.). New York, NY: Teachers College Press.
- Smyth, J. (1989). Developing and sustaining critical reflection in teacher education. *Journal of Teacher Education*, 40(2), 2-9.
- Sparks-Langer, G.M, & Colton, A.B. (1991, March). Synthesis of research on teachers' reflective thinking. *Educational Leadership*, 37-44.
- Spradley, J. (1980). *Participant observation*. New York, NY: Holt, Rinehart & Winston.
- Squire, J.R. (2003). The history of the profession. In J. Flood, D. Lapp, J.R. Squire, & J.M. Jensen (Eds.), *Handbook of research on teaching the English language arts* (2nd ed., pp.3-17). New York, NY: Macmillan.
- Stake, R.E. (1981). Case study methodology: An epistemological advocacy. In W.W. Welsh (Ed.), *Case study methodology in educational evaluation*. Proceedings of the 1981 Minnesota Evaluation Conference. Minneapolis, MN: Minnesota Research and Evaluation Center.
- Stake, R.E. (1995). *The art of case study research*. Thousand Oaks, CA: Sage Publications.
- Stewart, R.A., & O'Brien, D. G. (1989). Resistance to content area reading: A focus on preservice teachers. *Journal of Reading*, 33, 396-401.
- Stieglitz, E.L., & Oehlkers, W.J. (1989). Improving teacher discourse in a reading lesson. *The Reading Teacher*, 42(6), 374-379.

- Stodolsky, S. (1988). *The subject matters: Classroom activity in math and social studies*. Chicago, IL: University of Chicago Press.
- Strauss, A.L., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Thousand Oaks, CA: Sage Publications.
- Sturtevant, E.G., Boyd, F.B., Brozo, W.G., Hinchman, K.A., Moore, D.W., Alvermann, D.E. (2006). *Principled practices for adolescent literacy: A framework for instruction and policy*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Suter, W.N. (1998). *Primer of educational research*. Needham Heights, MA: Allyn & Bacon.
- Tatto, M.T. (1998, January/February). The influence of teacher education on teachers' beliefs about purposes of education, roles, and practices. *Journal of Teacher Education*, 49(1), 66-77.
- Tishmann, S., Perkins, D.N., & Jay, E. (1995). *The thinking classroom: Learning and teaching in a culture of thinking*. Boston, MA: Allyn and Bacon.
- Tovani, C. (2000). *I read it, but I don't get it: Comprehension strategies for adolescent readers*. Portland, ME: Stenhouse.
- Tovani, C. (2004). *Do I really have to teach reading? Content comprehension, grades 6-12*. Portland, ME: Stenhouse.
- Tracey, D. H., & Morrow, L.M. (2006). *Lenses on reading: An introduction to theories and models*. New York, NY: The Guilford Press.
- Vacca, R.T. (2002, November). From efficient decoders to strategic readers. *Educational Leadership*, 6-11.

- Vacca, R.T., & Vacca J.L. (2005). *Content area reading: Literacy and learning across the curriculum* (8th ed.). Boston, MA: Pearson.
- Vacca, R.T., Vacca J.L., & Mraz, M. (2011). *Content area reading: Literacy and learning across the curriculum* (10th ed.). Boston, MA: Pearson.
- Villegas, A.M. & Lucas, T. (2002). Preparing culturally responsive teachers: Rethinking the curriculum. *Journal of Teacher Education*, 53(1), pp. 20-32.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. (M. Cole, V. John-Steiner, S. Scribner, & E. Southerman, Eds. and Trans.). Cambridge, MA: Harvard University Press. (Original work published 1934)
- Vygotsky, L.S. (1981). The instrumental method in psychology. In J. Wertsch (Ed.), *The concept of activity in soviet psychology* (pp. 3-35). New York, NY: Sharpe: Armonk.
- Vygotsky, L. S. (1986). *Thought and language*. Cambridge, MA: The MIT Press.
- Vygotsky, L.S. (1987). Thinking and speech. In R. Rieber & A. Carton (Eds.), *The collected works of L. Vygotsky*. New York, NY: Plenum.
- Wade, S.E., & Moje, E.B. (2000). The role of text in classroom learning. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 609-627). Mahwah, NJ: Erlbaum.
- Walter, J.G., & Gerson, H. (2007). Teachers' personal agency: Making sense of slope through additive structures. *Educational Studies in Mathematics*, 65, 203-233.

- Wang, L., Bruce, C., & Hughes, H. (2011). Sociocultural theories and their application in information literacy education and research. *Australian Academic & Research Libraries*, 42(4), 296-308.
- Webb, N.M., Nemer, K.M., Kersting, N., & Ing, M. (2004). *The effects of teacher discourse on student behavior in peer-directed groups*. A paper presented at the annual meeting of the American Educational Research Association, San Diego, California.
- Wells, G. (1986). *The meaning makers: Children learning language and using language to learn*. Portsmouth, NH: Heinemann.
- Wells, G. (1994). The complementary contributions of Halliday and Vygotsky to a "Language-Based Theory of Learning," *Linguistics and Education*, 6, 41-90.
- Wells, G. (2001). The case for dialogic inquiry. In G. Wells (Ed.), *Action, talk, and text: Learning and teaching through inquiry* (pp. 171-194). New York, NY: Teachers College Press.
- Wells, G. (2009). Dialogic inquiry as collaborative action research. In S.E. Noffke, & B. Somekh (Eds.), *The SAGE handbook of educational action research* (pp. 50-61). London, England: Sage Publications Ltd.
- Wilkinson, I.A. G. & Son, E.H. (2011). A dialogical turn in research on learning and teaching to comprehend. In M.L. Kamil, P.D. Pearson, E.B. Moje, and P.P. Afflerbach (Eds.), *Handbook of reading research* (Vol. 4, pp. 359-387). New York, NY: Routledge.
- Williams, J.P. (2002). Reading comprehension strategies and teacher preparation. In A.E. Farstrup & S.J. Samuels (Eds.), *What research has to say about reading*

- instruction* (3rd ed., pp. 243-260). Newark, DE: International Reading Association.
- Willis, A. I., & Harris, V. J. (1997). Expanding the boundaries: A reaction to the first grade studies. *Reading Research Quarterly*, 32(4), 439-445.
- Wilson, A.A. (2011). A social semiotics framework for conceptualizing content area literacies. *Journal of Adolescent and Adult Literacy*, 54(6), pp. 435-444.
- Wood, K.D. (2012, November). Four components to promote literacy engagement in subject matter disciplines. *Middle School Journal*, 49-57.
- Wood, T. (1995). An emerging practice of teaching. In P. Cobb, & H. Bauersfeld (Eds.), *The emergence of mathematical meaning: Interaction in classroom cultures* (pp. 203-227). Hillsdale, NJ: Lawrence Erlbaum.
- Wood, T., Cobb, P., & Yackel, E. (1990). The contextual nature of teaching: Mathematics and reading instruction in one second-grade classroom. *Teachers College Record*, 89, 525-539.
- Yin, R. (2003). *Case-study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.

APPENDIX A: CONVERSATION/INTERVIEW LOG

DATE	SESSION	TOPIC	PARTICIPANTS	LANGUAGE ABOUT BELIEFS
9/5/13	SG	Teaching middle level students	Michael, Kayla, Sarah	<ul style="list-style-type: none"> Integrating what students read and write outside of the classroom into the classroom Most of the stuff you learn in middle school is boring There's lots to learn They work better when the educational material is relevant Ability doesn't define you A great teacher encourages group work for a better understanding
11/7/13	P	Literacy in Science & Math	Tyler, Emily	<ul style="list-style-type: none"> I think in science I would need to encourage them to read beyond what is being taught to them—to expand their minds on what they think is interesting. I think math is a little difficult because it doesn't really facilitate much reading in the class but I mean the way I would go about it is just—well, so many kids ask WHY are we learning this and I think it would be really cool to just find articles or if you could find a book that just talks about how math is used every day.
12/12/13	I	Literacy in math	Janie, Kayla	<ul style="list-style-type: none"> ...had a hard time seeing how a lot of the things related to math. My mom's a teacher so sometimes after class I would call her and she would be like, no, no, this really does connect.
12/12/13	SG	Literacy in ELA	Michael, Lauren, Sarah, Janie	<ul style="list-style-type: none"> I feel like students in middle school really have a hard time when you give them something to read and you ask them to write a summary and they write like the whole chapter because they don't know what within the chapter is the key point. I had never really thought about how important it is to be writing while you're reading. And I've learned that that's really, really important, and it makes sense.
12/12/13	SG	Literacy in Social Studies	Hannah, Taylor, Rachel, Janie	<ul style="list-style-type: none"> I never thought about using anything like the prereading stuff that we did and applying it to social studies rather than just using it before reading a story. Like that whole Janet Allen book, I think that whole book was really useful cause I never would have thought of these strategies to use in social studies.
12/12/13	SG	Literacy in Math	Gabrielle, Kayla, Kathryn, Janie	<ul style="list-style-type: none"> I think with alterations to them they can be made for math. I think if you look at the role of the strategies like we read and write to learn more, then those ideas need to go in the math class.

APPENDIX B: SEMESTER PLAN

EDML 470: Reading and Writing across the Content Areas

Required Products: 8+

Length: 15 classes

Study	Length	Unit of Study	Product
1 RQ 1	2 weeks	Establishing Our Community for Learning Literacy Best Practices in the Middle Level Classroom <i>Disciplinary Literacy Practices</i>	<i>My Literacy Autobiography</i> <i>What Do You Think about Reading and Literacy?</i>
2 RQ 1	2 weeks	Teaching and Learning Through Text: <ul style="list-style-type: none"> • The importance of literacy in the content areas (<i>specificity in disciplines</i>) • Literacy processes • Getting to know your students, your materials, and your teaching • Teaching for diversity 	<i>Remembering Reading</i>
3 RQ 2	2 weeks	Prereading Strategies: <ul style="list-style-type: none"> • Read aloud (<i>Disciplinary connections</i>) • Building/activating background knowledge (<i>Using discipline specific resources</i>) • Building vocabulary (<i>Discipline specific</i>) 	Reading and Thinking Like a Teacher
4 RQ 2	4 weeks	Strategies for Guided (During) Reading: <ul style="list-style-type: none"> • Establishing purpose for reading • Creating reading guides (<i>Discipline specific</i>) • Providing in-class time for reading • Annotating text for holding thinking • Establishing rigor • <i>Close reading in specific disciplines</i> 	Reading and Thinking Like a Teacher Text Sets
5 RQ 3	4 weeks	Post-Reading Strategies: <ul style="list-style-type: none"> • Questioning and discussion • Reinforcing and extending content (<i>disciplinary</i>) knowledge • <i>Facilitating deep comprehension of disciplinary concepts</i> 	Reading and Thinking Like a Teacher Strategy Lesson
6 RQ 3	1 week	Facilitating learning through (<i>disciplinary</i>) text: <ul style="list-style-type: none"> • Encouraging independence in content literacy • Encouraging and promoting content literacy in the (<i>disciplinary</i>) classrooms • Authentic assessment and evaluation of student learning of <i>disciplinary concepts</i> 	<i>Who Am I as a Content Area Literacy Teacher?</i> <i>Who Are You as a Reader?</i> <i>My Perspectives on Literacy and Learning</i>

APPENDIX C: TALKING POINTS ABOUT REMEMBERING READING

<p>1. What comes to mind when you hear the phrase “reading in secondary school”?</p> <ul style="list-style-type: none"> ▪ K: Boring textbooks; one thing I wish I was interested in; can allow students to excel in their academics ▪ L: Middle schoolers resenting reading ▪ M: Sustained silent reading; how much I enjoyed being able to read while in school ▪ J: Reading in high school 	<p>5. Why did you read it?</p> <ul style="list-style-type: none"> ▪ K: Caught my attention; “I am not much of a reader but whenever it was these books I got hooked.” Memories of things I may have forgotten ▪ L: I love Harry Potter ▪ M: Enjoy escaping into a novel ▪ J: Because I love football
<p>2. What were you reading in your favorite experience?</p> <ul style="list-style-type: none"> ▪ K: Memory books made by mom of summer vacations at lake house ▪ L: Harry Potter ▪ M: One of those standard beach novels ▪ J: Michael Vick’s Finally Free 	<p>6. How did you feel when you were reading it?</p> <ul style="list-style-type: none"> ▪ K: Sense of warmth and happiness ▪ L: Happy & relaxed ▪ M: Relaxed and free ▪ J: Intrigued
<p>3. When did you read it?</p> <ul style="list-style-type: none"> ▪ K: Every summer at the lake house; read old ones and end with the newest addition; it was so much fun ▪ L: 6th grade ▪ M: At the beach with friends ▪ J: Last semester 	<p>7. Why do you think you remembered this particular experience?</p> <ul style="list-style-type: none"> ▪ K: Touched me in a way no other reading experience could; relatable—about me and my life; hard time reading other books because I have nothing related to any of the characters ▪ L: Because it was relaxing and enjoyable ▪ M: It was peaceful ▪ J: I love football and I wanted to read his story of redemption
<p>4. Where did you read it?</p> <ul style="list-style-type: none"> ▪ K: On the swing under the huge tree in the evening with a beautiful sunset ▪ L: Outside by a bonfire ▪ M: Garden City Beach ▪ J: At home, campus, wherever I wanted to 	<p>8. After thinking about your favorite reading experience, what does this suggest to you about your use of reading in your future instruction?</p> <ul style="list-style-type: none"> ▪ K: Get students in their comfort zone and make them interested to get hooked; relate materials to things they enjoy; get students to feel welcomed everyday in class ▪ L: Appeal to students’ interests ▪ M: Reading for enjoyment is crucial; set up an inviting atmosphere ▪ J: Incorporate how I felt when reading

APPENDIX D: MEAGAN'S SKETCH OF REMEMBERED READING



**APPENDIX E: ELEMENTS AND RITUALS OF A LITERACY WORKSHOP
MODEL OF TEACHING**

Elements	Middle Level Rituals	Content Area Literacy Course
<ul style="list-style-type: none"> • Choices about content • Time for reading & writing • Rigorous whole-class, small-group, and individual teaching • Productive teacher-to-student, student-to-teacher, and student-to-student talk • Periods of focused study about Big Ideas • Reading and writing rituals and expectations • High expectations for students as readers and writers • Safe environment for trying out new ideas • Structured management of the classroom 	<ul style="list-style-type: none"> • Opening Poem – 5 min. • Read-aloud – 10 min. • Sharing of Thinking – 10 min. • Focus Lesson – 15 min. • Workshop – 30 min. • Group Share – 15 min. • Closing Poem – 5 min. <p>[Middle level classes are usually scheduled for 90 minutes each day. These workshop rituals must be honored every day.]</p>	<ul style="list-style-type: none"> • Opening Poem – 10 min. • Instructor Read-aloud – 15 min. • Sharing of Thinking – 10 min. • Focus Lesson – 20 min. • Workshop – 30 min. • Group Share – 10 min. • Student Read-aloud – 10 min. • Response to Professional Reading – 20 min. • Workshop – 30 min. • Closing Poem – 10 min. <p>[The university course is scheduled for 165 minutes once a week. These workshop rituals will form the structure for the course.]</p>

Note. Adapted from *The Writing Workshop* by K.W. Ray, 2001. Copyright 2001 by Heinemann.

APPENDIX F: TENETS OF READING COMPREHENSION AS A SOCIAL CONSTRUCTIVIST PROCESS

- Excellent reading teachers influence students' learning.
- Good readers are strategic and take active roles in the reading process.
- Reading should occur in meaningful contexts.
- Students benefit from transacting with a variety of texts at multiple levels.
- Vocabulary development and instruction affect reading comprehension.
- Engagement is a key factor in the comprehension process.
- Comprehension strategies and skills can be taught.
- Differentiated reading instruction accommodates students' needs, including those of English learners and struggling readers.
- Dynamic assessment informs comprehension instruction.
- Comprehension is a social constructivist process.
- Classroom culture should encourage deep engagement with effective reading.
- Strategies should blend explicitness, systematicity, mindfulness, and contextualization.
- Classroom conditions should create continuous opportunities to develop intellectual unrest.
- Students should be encouraged to develop their conscious awareness of how text functions and how meaning is created.
- Reading tasks should be designed and used that support the authentic use of the processes and understandings implicit in reading behavior.

Note. Adapted from "Holistic, Integrated Approaches to Reading and Language Arts Instruction: The Constructivist Framework of an Instructional Theory," by B. Cambourne, 2002, *What Research Has to Say about Reading Instruction*, 3rd ed., edited by A.E. Farstrup and S. J. Samuels. Copyright 2002 by the International Reading Association, and from *Guided Comprehension in Grades 3-8*, by M. McLaughlin and M.B. Allen, 2009. Copyright 2009 by the International Reading Association.

APPENDIX G: KAYLA'S REFLECTIVE POEM

November 25, 2013

I Am a Teacher of Middle Level Students

I am motivational and positive.
I wonder how many Math teachers do read a louds.
I hear students walking the hallways in some of my dreams.
I see my students becoming the best they can be.
I want to be a great teacher who impacts students' lives.
I am motivational and positive.

I pretend I will make someone want to become a teacher one day.
I feel touched because my students feel comfortable in my room.
I touch the papers of successful students after a test.
I worry that my students will not speak up when they need help.
I cry for the students that try their hardest and still can't get it.
I am motivational and positive.

I understand incorporating literacy in Math may be very difficult.
I say that students will receive all my effort while lesson planning.
I dream about ways to bring text sets in Math classes.
I try to think how I can apply all literacy strategies in my classroom.
I hope students will see me as a successful teacher.
I am motivational and positive.

APPENDIX H: LAUREN'S FINAL REFLECTIVE THOUGHTS



These are my final thoughts about my learning as a result of this course:

Before this class, I truly put little thought into the importance of literacy within the classroom. After reading the texts and being introduced to new strategies that stimulate the students in becoming better reader, writers, and thinkers I have a newfound understanding and love for becoming an effective teacher for literacy. Literacy is the key component in a student's academic success as it directly relates to everything they are doing and will continue to do during their duration as students. As a future educator, I understand just how important teaching literacy is as well as the importance of assessing student's understanding. I look forward to being able to implement many of the learning strategies that I have been taught through this class, into my future classroom.

APPENDIX I: JOSH'S SELF-REFLECTION OF LESSON STRATEGIES

Self-Reflection of Lesson Strategies

November 21, 2013

Doing the lesson strategies has truly caused me to think. I enjoyed making the lessons and I cannot wait to begin making lesson plans for my future students. What really worked well was the thinking process of what I actually wanted to do with the students; the entire planning process was not hard to do at all. The part that was most difficult was applying what I wanted to do and putting it on paper. I believe that these literacy strategies will help my future students in preparation for learning how to apply reading and writing in their daily lives. Also when it comes time for them to do the same in other classes they will be well equipped to think critically, know how to work in groups, and determine the context of which they are learning. With the incorporation of technology the students will be ready to take on any task given to them, also with learning how to work in groups will be vital for success in school. Purposeful planning of reading and writing strategies will help your students tremendously because, it will prepare them to think abstract and critically and learn new vocabulary. Vocabulary in science and social studies can be and is very different from the vocabulary in ELA. Especially the writing engagements for social studies and science, it will help my students learn how to write great research papers, and incorporating purposeful reading strategies will help the students with speaking in front of the class to do presentations. Through it all doing this assignment has caused me to think back to my own education and what we have been learning this semester and I am very excited to use some of what I already know how to do, and the new material I have learned this semester from the readings and activities we have done. I always knew how important literacy was to a student, but being in this class showed how just how important and key it is to a student's success in the classroom.