ABSTRACT


The transition from preservice teacher to classroom teacher occurs rapidly, requiring that teacher candidates assimilate into the field quickly. In order to do so, these teachers must demonstrate appropriate language development as it relates to the teaching profession. Not only do novice teachers need to be able to articulate what they and their students do, but they should also be able to express why such actions are necessary. Sufficient command of professional language unique to the discipline of teaching ensures that preservice teachers are capable of engaging in discussions about pedagogy and curriculum. Possessing an understanding of research-based pedagogical methods is necessary; however, conveying proficiency of professional, discipline-specific language ensures that the novice instructor is both knowledgeable and capable. It is critical then, that preservice teachers develop pedagogical language prior to entering their beginning teaching careers.

The purpose of this qualitative multiple-case study was to explore how English language arts and social studies preservice teachers used an online space for a dialogic learning experience. The dialogue of nine preservice teacher pairs was examined, and three dyads were subsequently examined in depth as a means to understand how online discussion of informational text facilitated further comprehension of the presented material. Research questions guiding the study are as follows: how do preservice teachers develop professional language during a semester-long course that utilizes content-related, research-based readings, and how does an online, private and controlled, asynchronous dialogue with a peer enable preservice teachers to construct pedagogical knowledge?
The research design for this study was an instrumental, qualitative multiple-case study. Data included transcripts from online documents, mid-semester and summative reflections, and primary course documents. The research focused on the dialogic relationships between preservice teachers in an online space. Data analysis enabled the researcher to determine how preservice teachers developed professional language and constructed pedagogical knowledge through their online discussions with a peer. Four major themes were determined as a result of data analysis: professional language use, reflection and refraction, envisioning one’s self as a teacher, and support. The findings of the study reveal that discussions among the preservice teacher dyads contributed to the development of professional language and construction of pedagogical knowledge in unique ways for each pair.
Dialogic Possibilities: Exploring New Frontiers in Collaboration

by
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DEDICATION

We do not grow absolutely, chronologically. We grow sometimes in one dimension, and not in another; unevenly. We grow partially. We are relative. We are mature in one realm, childish in another. The past, present, and future mingle and pull us backward, forward, or fix us in the present. We are made up of layers, cells, constellations.

- Anais Nin

To my husband, thank you for joining me on this journey and for always believing in me.

To my children, hard work will take you wherever you wish to go in life. Just keep swimming.

To my parents, without you, none of my accomplishments would be possible. Thank you for always supporting me and for serving as exemplary role models.

And to Meg, my mentor and friend, thank you for giving me the push I needed to begin this journey. I miss you every day.
BIOGRAPHY

Born in Ottawa, Ontario, Canada, Nicole relocated to Northern Virginia as a child. Her passion for reading and writing was crafted under the tutelage of many patient and brilliant English teachers and one exceptional math tutor, who recognized that books were the way to keep her coming back. Nicole achieved a Bachelor of Arts in English with a minor in Pedagogy and Human Development from East Carolina University. After teaching English and learning from students and teachers alike in Fukushima, Japan, she solidified her desire to teach. Under the guidance and support of Dr. Al Muller, she earned a Master of Arts in Teaching, also from East Carolina University. Nicole taught high school English for three years prior to pursuing a PhD in Curriculum and Instruction at North Carolina State University. Her research interests include preservice teacher preparation and mentoring, social learning and technology.
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And someday, if you have something to offer, someone will learn something from you. It's a beautiful reciprocal arrangement. And it isn’t education. It’s history. It’s poetry.

- Mr. Antolini, Catcher in the Rye

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CHAPTER ONE: INTRODUCTION

Background & Statement of Problem

Educators continually lament over time constraints placed on instruction. Finding the balance between meeting curriculum objectives and responding to student needs is challenging for novice and veteran teachers alike. Specifically, preparing preservice teachers for the workforce is a task that is both complex and challenging; these students need a harmonious blend of content instruction with pedagogical instruction, along with the ability to reflect upon their own experiences in the classroom. Preservice teachers may find that they desire an additional space for the discussion of course readings, concepts, and activities; thus, educators may find that their students benefit from providing alternate spaces for such conversations to unfold.

The transition from preservice teacher to classroom teacher occurs rapidly, requiring that candidates assimilate into the field quickly. In order to do so, these teachers must demonstrate appropriate language development as it relates to the teaching profession. Beginning teachers undergo intense scrutiny from department chairs, mentors, administrators, parents and school community members. Not only do novice teachers need to be able to articulate what they and their students do, but they should also be able to express why such actions are necessary. Sufficient command of professional language unique to the discipline of teaching ensures that preservice teachers are capable of engaging in discussions about pedagogy and curriculum. Possessing an understanding of research-based pedagogical methods is necessary; however, conveying proficiency of professional, discipline-specific
language ensures that the novice instructor is both knowledgeable and capable. Furthermore, teachers exemplifying command over pedagogical language present themselves as confident, successful individuals. It is critical then, that preservice teachers develop pedagogical language prior to entering their beginning teaching careers.

Packer and Goicoechea (2000) explain that the process of enculturation involves “picking up the jargon, behavior and norms of a new social group” (p. 229). Preservice teachers on the path to enculturation into the field of education begin developing an understanding of the language, behavior and norms of the teaching profession once they begin the preparatory process. For the successful development of professional language, preservice teachers must have opportunities for practice in their preparatory programs. Typically, such professional language is primarily conveyed to preservice teachers by their professors and through the informational texts they read; therefore, talking about pedagogical texts with professors and peers can be viewed as a beneficial method for professional language development in preservice teachers.

A potentially underutilized method for assessing and extrapolating course assigned readings is through class discussion; given the expanding definition of the classroom, this discussion strategy can be applied to both online and offline settings (Akers, 2009; Larson, 2008). Face-to-face, whole group discussions allow students to grapple with how they will present content to future students in a shared, dynamic environment. Furthermore, whole class symposia present opportunities for the extrapolation of main ideas and critical messages from informational texts. In the 21st century classroom environment, teacher educators find
that students can also achieve comparable outcomes through peer-to-peer discussions and small group deliberations in online forums (Akers, 2009; Larson, 2009). An added benefit of online discussion is that it allows for asynchronous talk (Akers, 2009; Kingsley, 2011). In this fashion, students can reflect on course readings in an untimed, thoughtful manner prior to engaging in a critical discourse with peers; as a result, they are more prepared for face-to-face discussions, rendering them more valuable for class meetings.

As indicated by Larson (2008, 2009) and Akers (2009), online discussion forums are also inclusive. Many students who may not feel comfortable sharing in face-to-face discussions may exemplify passionate, highly contributive voices in online settings; in fact, it is possible that some students may express more comfort in an online demonstration of comprehension because they feel less exposed and, thus, safer behind a computer screen (English, 2007). This dynamic nature of the 21st century classroom presents a pivotal shift in how preservice educators prepare themselves for the job force (McPherson, Wang, Hsu, & Tsuei, 2007).

Pope (1999) posits that the transformation aspiring educators undergo from envisioning themselves as students to becoming preservice teachers is both fundamental and challenging in nature. To fully comprehend the course readings they are assigned, preservice teachers must be able to view these informational texts through a critical teaching lens, determining how the strategies presented may or may not be of benefit to students they have yet to know or understand. This task is daunting at the very least. A safe learning environment such as an online, peer-to-peer discussion space enables students to grapple
with new concepts and foreign content while extending and building upon their comprehension of the information presented in course texts without feeling vulnerable, as they may in a face-to-face classroom environment (Larson, 2009; English, 2007).

**Pilot Study**

I previously conducted a pilot study in order to prepare for this research; Yin (2009) maintains pilot studies provide the researcher with an opportunity to improve data collection and the general research design. My pilot study entailed close analysis of three preservice teacher dyads as they engaged in online discussions about course readings and activities; I was particularly interested in how the participants developed professional language through the discussion of ideas and opinions extrapolated from the course readings and activities. The online discussions were a virtual component of a face-to-face course required for the preservice teachers. Furthermore, I utilized Pope’s (1999) concept of reflection and refraction as a lens for determining if the preservice teachers were capable of applying personal understandings of pedagogical concepts to their own teaching philosophies or teaching strategies. Specifically, I coded student remarks as “reflecting” or “refracting”; this process enabled me to identify when students were offering their comprehension of particular concepts, or taking their learning a step further by tailoring suggested pedagogical strategies to fit their future students. I ultimately concluded that while some students did not experience professional language development from online discussion of pedagogical texts, some students did exhibit professional language development. These mixed results from my pilot study not only indicated the need for an additional study, but also assisted in refining
this study of how online discussion of course readings and activities may impact preservice teachers’ professional language development. Specifically, along with aiding in alignment of the current study, the pilot study also initiated the additional codes of reflection and refraction and teacher-selves.

**Overview of Current Study**

As a doctoral student, I gathered data during the spring semester of 2014 for analysis to serve as a study for my dissertation. My research occurred in the context of a course designed to prepare students for becoming teachers of middle grades students; specifically, the course aims to address how these preservice teachers can best teach writing across the curriculum in a 21st century learning environment. Throughout their time in this course, preservice teachers were afforded the opportunity of working one-on-one with middle grades students; in this manner, they were given a hands-on approach to practicing writing instruction. Furthermore, the preservice teachers also maintained a written dialogue with a peer in which they grappled with pedagogical concepts and strategies.

For the purposes of this study, I completed a multiple-case study of preservice teacher pairs as they engaged in a virtual assignment for a required course in their Middle Grades English Language Arts/Social Studies degree program. The context of the research study occurred in an undergraduate level class that focuses on best practices for teaching writing across the curriculum. There were 23 students in the entire course; however, nine student pairs participated in this study. The student participants were juniors enrolled in a Middle Grades English Language Arts/Social Studies degree program, and this course was required
for degree completion. Because these students are aspiring teachers, they are referred to as preservice teachers.

As Middle Grades English Language Arts/Social Studies majors, preservice teachers are required to take this course in order to receive licensure. In this particular class, they learn how to teach writing to middle grades students. This course is dynamic in that it enables preservice teachers to work one-on-one with middle school students in order to craft their pedagogical styles when teaching writing. In conjunction with this one-on-one teaching, the preservice teachers also participate in writing groups, unit planning groups, and dialogic learning partnerships. The required course readings offer researched-based discussion and strategies for effective classroom writing instruction.

This study focused on the dialogic learning partnerships required of the preservice teacher participants. For this particular assignment, preservice teacher pairs keep a private journal in the form of a blog or Google Document that employs a dialogic analysis of course required readings. The preservice teachers reflect on their intended teaching styles, future classrooms, and future students’ needs while also providing a critical stance on the assigned reading. The assignment, Dialogic Learning Logs, is intended to help these preservice educators generate professional voices required for student teaching and beyond. The online dialogic learning log discussions were a virtual component of a face-to-face course required for the preservice teachers. The assignment requires that the preservice teachers complete the weekly readings and then compile their reflections in an applicative, thoughtful response. The professor asks that the preservice teachers respond in a dialogic fashion; thus, exchanges
are to reflect a virtual, asynchronous conversation. The intended goal of the assignment is to facilitate professional language development among aspiring teachers in order to prepare them for their classroom careers. Such language will not only provide access to the field of education, but it will also enable them to uphold a dialogue with expert members of their field (i.e., administrators and faulty mentors) that they will encounter as they embark upon their career paths (Gratch, 2000).

Course assigned readings in English language arts teacher education programs typically provide preservice educators with research-based pedagogical strategies designed to aid them in accomplishing their task at hand: teaching students to become skillful readers and writers. The unspoken assumption is that students are not only capable of comprehending advanced informational texts, but are also able to examine the information with a critical lens, deciding for themselves which strategies and suggestions will be optimal for their future students. Therefore, preservice teachers are required to perform dual tasks when reading course assigned texts: comprehend the presented information, and thoughtfully consider this material with their future classroom climate and students in mind.

Because the dialogic learning log assignment requires communication in an online space, the class observations do not serve as a primary data source. “A major strength of case study data collection is the opportunity to use many different sources of evidence; the need to use multiple sources of evidence far exceeds that in other research methods” (Yin, 2009). Therefore, key forms of data for this study include class artifacts, preservice teacher documents, dialogic learning log transcripts, as well as mid-semester and summative
reflections composed by the preservice teachers. Yin (2009) explains that interviews are a valuable form of data because of their ability to provide significant insight into human affairs and behavioral events, on which case studies are generally focused. The professor of the course participated in numerous follow up discussions with the researcher in order to provide further insight and clarity into the dialogic learning log process.

It is also important to note that as a researcher, I concurrently fulfilled the role of a research assistant in the course. As a graduate research assistant, I engaged in a close working relationship with the professor of the course, and I also occasionally attended course meetings.

**Purpose of Study and Research Questions**

The purpose of this qualitative case study was to explore how English language arts and social studies preservice teachers used an online space for a dialogic learning experience. The dialogue of nine preservice teacher pairs was examined, and three dyads were subsequently examined in depth as a means to understand how online discussion of informational text facilitated further comprehension of the presented material. The Common Core State Standards Initiative (2010) stresses the importance of a global perspective in education, as well as the importance technology holds in a classroom. Dialogic learning logs address these critical needs by facilitating discussion that can occur without the constraints of time and location. Furthermore, because the online space utilized for the dialogic learning logs was both controlled and private, preservice teachers were capable of experimenting with
professional language as they learned to develop this critical voice necessary for their future careers.

This research study identified how preservice teachers are capable of holding a professional conversation incorporating the research from their assigned literature over the course of a semester by means of a controlled, asynchronous online discussion. The following research questions guided this study:

1. How do preservice teachers develop professional language during a semester-long course that utilizes content-related, research-based readings?

2. How does an online, private and controlled, asynchronous dialogue with a peer enable preservice teachers to construct pedagogical knowledge?

**Significance of the Study**

According to the American Association of Colleges for Teacher Education (2013), teacher preparatory programs are implementing widespread amounts of online learning. In a survey of 674 institutions, 74% indicated that their preparatory programs provided online courses for preservice candidates, resulting in almost one million preservice candidates engaging in an online course (AACTE, 2013). With the constant push for digital learning, many classes taught face-to-face are now diminishing. While digital learning may help solve budget constraints and create access to a wider net of students, it is critical to determine whether or not digital schooling is acceptable for all learning situations (Mishra & Koehler, 2006; Selwyn, Gorard, & Williams, 2001). Preparing future educators for their work in classrooms and professional learning environments is a task that lends itself primarily to
face-to-face interaction; however, some components of teacher education may be conducive to online learning spaces. Through this study, I attempted to determine if developing professional language is one such component that lends itself to online learning. Although there is some research on how professional language development occurs (Chernobilsky, DaCosta, & Hmelo-Silver, 2004; Ticknor, 2010), the current study sought to further address a gap in the literature exploring how preservice teachers develop professional language in their preparatory programs. I also sought to examine how dialogue with a peer in an online space enabled preservice teachers to construct pedagogical knowledge.

Furthermore, while teacher preparation programs provide some exposure to a classroom environment prior to exiting their students from the program, these students are not typically exposed to settings in which they are required to communicate with other teachers and administrators using professional language, much like a professional learning community (PLC). Professors of aspiring educators must supplement this void through their course readings, assignments and lectures. Thus, identifying how professors are capable of achieving this goal for their preservice teachers is imperative.

Teaching standards require educators to be reflective practitioners, changing their pedagogy as they grow and develop throughout the course of their careers. One way that educators meet this requirement is by reflecting on each lesson that they deliver and its strengths, weaknesses, successes and failures. Such reflection enables educators to change, or refract, further strengthening their pedagogical knowledge. In order to prepare preservice teachers for their careers in the field, it is critical that they begin the process of reflecting and
refracting on their pedagogy while they have the opportunity to practice and learn from their own successes and failures.

**Methodological Approach**

This study employs a case study approach to qualitative research using content analysis (Krippendorf, 2013). Case study research is a qualitative research design in which the researcher examines a real-life, bounded system (Creswell, 2013). According to Yin (2009), case study research that seeks to answer “how” questions are defined as explanatory in nature; thus, this research will be read as an explanatory case study. Additionally, because nine preservice teacher pairs were analyzed, this is a multiple case study (Creswell, 2013; Yin, 2009). In this study, the researcher analyzed preservice teachers’ discussions to determine how preservice teachers develop effective professional language in an online environment. The nine preservice teacher pairs analyzed serve as instrumental cases (Stake, 1995) for this multiple case study. The researcher composed a within-case analysis, followed by a cross-case analysis (Creswell, 2013) in order to identify any common themes shared amongst the cases. It is important to explain why other student participants in the course will not be included in this study (Yin, 2009); the nine cases analyzed for this research will adequately represent the beliefs, motivations and knowledge of the other students in the course, as well as represent a diverse student population. Furthermore, the nine student pairs comprise the vast majority of the students enrolled in the course.
Definition of Terms

This study will utilize several terms frequently; thus, their definitions have been included.

Asynchronous Dialogue: a conversation that does not take place simultaneously; the participants are not having a discussion in real-time.

Blog: an online writing space in which authors can create a virtual publication of their own works.

Computer Mediated Communication (CMC): any form of discussion between one or more individuals that occurs in a digital environment.

Dialogic Learning: the act of constructing knowledge through the means of a conversation with another person (Wells, 1999).

Dialogic Learning Log: an assignment in which two preservice teacher pairs engage in an online, asynchronous, private and controlled discussion about content-related research-based texts among other personal and professional conversations.

Pedagogical Content Knowledge: Shulman (1986) asserts that pedagogical content knowledge (PCK) is comprised of subject matter knowledge, pedagogical knowledge, and curricular knowledge. The ability to fuse content and pedagogy together for instruction demonstrates successful teacher pedagogical content knowledge.

Pedagogical Knowledge: an awareness and understanding of the art of teaching and its many components i.e., teaching styles, methods of instruction, paperwork involved, organizations related to the profession. For the purposes of this study, I utilize Pope’s
(1999) definition of reflection and refraction to explain how preservice teachers are capable of developing pedagogical knowledge.

Preservice Teacher: an undergraduate student who aspires to become a teacher and thus, is enrolled in a teacher education program.

Professional Language: speech, language and abbreviations that are specific to one’s professional discipline (e.g., pedagogy, fluency, writing across the curriculum). For this study, vocabulary relates to the profession of teaching and is used as an indicator of pedagogical content knowledge.

Reflection: the process teachers and learners use to consider and examine their practice (Pope, 1999).

Refraction: an extension of reflection; a change in view and/or practice as a result of reflection (Pope, 1999). Preservice teachers exemplify refractions in multiple ways: (1) pedagogical beliefs/practices can change due to knowledge gained through course readings; (2) pedagogical beliefs/practices can change through working with student partners; (3) pedagogical beliefs/practices can change through reflections on past educational experiences.

Online Safe Spaces: a webpage or digital document in which one discussant can converse with another privately and freely.

**Chapter Summary**

In summation, this multiple case study of three preservice teacher pairs as they participate in dialogic learning logs sought to explore how aspiring educators develop
professional voices over the course of a semester. This study is significant to the field of
teacher education because it helps to provide insight into how teacher education courses can
be offered with online components. The cross-case analysis exposes common themes
exemplified throughout the preservice teachers’ learning logs. Chapter Two provides a
thorough review of the literature relevant to this study. Chapter Three provides an in-depth
explanation of the research design, data collection procedures, and data analysis. Chapter
Four delineates a detailed description of the findings, and Chapter Five includes a discussion
of the findings, contributions to the field, implications for teacher preparation programs, and
possibilities for future research.
CHAPTER TWO: REVIEW OF RELATED LITERATURE

Introduction

Because I am interested in how preservice teachers develop professional language over the time frame of a semester-long course with the aid of course assigned, research-based readings, a review of research that addresses teacher education programs as they utilize informational texts to aid in preparing teachers is necessary. A review of reading comprehension strategies as it pertains to secondary and higher education-level students is helpful because the students in this study demonstrate and build on comprehension of text through the reflections in their dialogic learning logs; this literature enables further understanding of how preservice teachers construct pedagogical knowledge as a result of reading and responding to informational texts. Specific reading comprehension strategies will also be reviewed because such strategies for comprehension of text are replicated in written form in the Dialogic Learning Logs. Specifically, reading comprehension strategies such as Questioning the Author (QtA), comparing/contrasting, questioning, interpreting and summarizing are used as indicators of reading comprehension for this study. In this particular study, these comprehension strategies are evident through student writing as the conversations analyzed took place in an online space. Furthermore, research on social learning theory and constructivism will help to ground this research in a way that acknowledges the fact that preservice teachers’ discussions in their dialogic learning logs provide a platform for scaffolded peer learning.
A review of research focusing on meaning making through online discussion is critical to addressing my second research question that seeks to determine how an online, private and controlled, asynchronous dialogue with a peer enables preservice teachers to construct pedagogical knowledge. For the purposes of adequately responding to this question, I will also include a review of how computer-mediated communication and dialogic learning can contribute to the comprehension of informational texts. Examining studies that utilize online discussion in various formats, whether these formats are email, chat rooms, or discussion board threads, will extrapolate how online discussion of text can strengthen comprehension. Finally, an examination of how written conversations can be utilized as a learning tool will address the technological tools referenced in my research.

The transformation aspiring educators undergo from envisioning themselves as students to becoming preservice teachers is both fundamental and challenging in nature (Pope, 1999). For the successful comprehension of the course readings they are assigned, preservice teachers must be able to view these informational texts through a critical teaching lens (McPherson et al., 2007), determining how the strategies presented may or may not be beneficial to students they have yet to know or understand. Indeed, preservice teachers are faced with a myriad of challenges on the path to becoming professionals. Givven and Santagata (2011) maintain that educators should be given the opportunity to experience professional development in a safe and collaborative manner. Safe learning environments also pose as one way to aid in teacher preparation without intimidating students. For example, an online, peer-to-peer discussion space enables preservice teachers to grapple with
new, unfamiliar concepts and foreign content while extending and building on their comprehension of the information presented in course-assigned informational texts without feeling vulnerable, as they may experience in a face-to-face classroom environment (English, 2007; Kingsley, 2011; Larson, 2009). Because preservice teachers may feel increasingly secure engaging in a computer-mediated discussion of pedagogical texts, a review of existing literature will examine the role of peer-to-peer dialogue in online settings with preservice teachers as a means to (1) serve as a vehicle for the development of a professional voice, and (2) demonstrate comprehension of advanced-level informational texts depicting research-based pedagogical knowledge.

**Theoretical Framework**

Pope’s (1999) model of Reflection and Refraction provided the framework for my study. This framework was particularly helpful in interpreting and analyzing the data collected. Pope’s model is rooted in Schön’s (1983) concept of the reflective practitioner; she explains that the successful preparation of her preservice teachers throughout the years required her to not only reflect upon her practices, but also refract her pedagogy to best suit the students she encountered each semester and their individual needs.

According to Pope (1999), reflection is a reiterative process for educators. Each response to student questions is not without consideration. Each lesson is dissected and contemplated for its effectiveness and value. Are curricular goals being met? Are student needs being met? The reflective process characterizes the life of an educator.
Pope explains that refraction occurs when an educator changes pedagogy as a result of the reflective process in which practitioners consider both themselves and the students in the instructional space. Suppose upon completion of a lesson, the teacher reflects upon how the students did not seem to comprehend the material presented. The following day, the teacher may choose to represent the same material in an alternate style. This choice to modify instruction as a result of considering both students and pedagogical effectiveness represents refraction. Thus, refraction can be viewed as an extension of reflection; without reflection, refraction cannot occur.

Many layers of dialogue enable the reflection and refraction process to succeed. Pope (1999) maintains that dialogue from her students facilitated the ability to reflect upon her pedagogical effectiveness; when determining how to best support her students, she realized that her answers were found through interacting and conversing with them. Likewise, an inner dialogue with herself enabled Pope to challenge her pedagogical opinions and beliefs. In this sense, Pope embodied Schön’s (1983) concept of the reflective practitioner; she continually sought personal and professional growth through the recursive process of reflecting on her work and reimagining it in improved ways. Pope’s work highlights the importance dialogue holds in the classroom for educators and students alike.

**Dialogic Learning**

While more traditional methods of teaching portray the teacher as the keeper of knowledge and the student as a receiver of information to be memorized, this outlook is not only obsolete, but also incapable of meeting the needs of 21st century learners. Freire (1970)
claims these presented roles are inappropriate and inequitable; to attain effective dialogue in the classroom, power relationships must not exist. Fortunately, students in today’s society are more communicative than ever given the high volume of social media that dominate their day-to-day lives. The youth of this generation crave communication and discussion through text messaging, Facebook, Twitter, blogs and wikis; suddenly, language seems to be more important than it ever was before. If language is in fact, as Halliday (1993) claims, “the essential condition of knowing, the process by which experience becomes knowledge” (p. 94), and if through language, knowledge is socially constructed (Vygotsky, 1934/1986), then it can be inferred that educators across the domains would benefit from incorporating high volumes of dialogue in their pedagogy. Halliday (1993) positions language itself as a process of learning; if one is speaking or writing, he or she is engaging in a process of knowledge construction. While this definition of dialogic learning is acceptable, it is necessary to examine the components of dialogic learning so that teachers can realign their curriculum to include more discourse.

**Defining dialogic learning.** The analysis of various textual interpretations, high-level reasoning applications, and structured communication are all factors that facilitate dialogic learning in literacy classrooms (Murphy, Wilkinson, Soter, Hennessey, & Alexander, 2009). Fecho and Botzakis (2007), former secondary English teachers turned teacher educators, propose the ideal classroom is based on honest dialogue. According to them, a dialogic classroom is defined by several key practices, the majority of which are: “the raising of questions and the authoring of response by and among all participants, encouraging multiple perspectives, and agreeing that learning is under construction and evolving rather than being
reified and static” (p. 550). These suggested characteristics imply that discussion is a vehicle for learning and that knowledge is socially constructed amongst learners. Along these lines, The New London Group (1996) makes the claim that scaffolded, social learning environments for students are critical and that in order to be truly effective, classroom teaching must correlate with student discourses. Wells (1999) further posits that education is required to be disseminated through a dialogue regarding content that students find most relevant. Therefore, material students do not find applicable to their needs is viewed as secondary to content that students will need for their future careers or advanced educations.

True dialogic learning occurs when teachers are capable of abandoning their power over knowledge and enabling students to share in the construction of knowledge (Freire, 1970). While dialogic learning in this sense is largely verbal in its characteristics, Spence (2008) maintains that the process of writing also reflects the communal learning that occurs in a classroom. In her study with elementary-aged students, Spence found that students formulate written ideas through the extrapolation of the thoughts and ideas presented by others in their community. Furthermore, the general belief depicted in the Guidelines for the Preparation of Teachers of English Language Arts (2006) is that written discourse is largely supportive of critical thinking and communication; thus, it is a valuable component to the English language arts teacher preparation. In alignment with a balanced literacy approach to instruction, the Council (2006) suggests writing experiences be formal, informal, authentic, and collaborative in the classroom.

Britton (1969/1986) explains that although not widely recognized as a form of learning, students are capable of achieving understanding through discussion. Britton
(1969/1986) provides anecdotes from five sixteen year-old female students’ discussion in order to demonstrate how “expressive talk” (p. 125) acts as a tool for elevating student understanding. As demonstrated by these students, rival viewpoints and shared experiences are considered as a means to elevate thoughtful discussions, creating a learning experience that is both rich and enjoyable for students. In a similar vein, Torbe (1969/1986) explains that “we learn by using language, by talking and by writing” (p. 136) and that both students and teachers should utilize language actively in the school setting in order to maximize learning potential. Therefore, both verbal and written discussion should be viewed as a powerful learning tool.

**Dialogic learning through questioning.** An excellent way of establishing dialogic learning is through the practice of questioning, whether questioning is directed towards peers, teachers, or the text (Berne & Clark, 2006; Fecho & Botzakis, 2007; Kingsley, 2011; Matsumura et al., 2012). According to Fecho and Botzakis (2007), when individuals formulate questions pertaining to text and author positions, they do so by representing their personal and cultural experiences. In this sense, the questions a reader formulates upon the reading of text are intensely contextual and subjective; the sharing of these questions with others enables their peers to consider alternate contexts and perspectives. One pedagogical strategy that addressed the practice of questioning in the classroom is referred to as “Questioning the Author”. Based upon their study examining the impact of literacy coaching on fourth and fifth grade students’ responses to text, Matsumura et al. (2012) identify the value of the Questioning the Author strategy as a form of reading comprehension instruction.
in which readers are required to engage actively in a dialogue that challenges and critiques the author’s writing. Not only do students become engaged in the text they are reading, but the interrogative dialogue helps to build and strengthen their reading comprehension. In this study, preservice teachers were observed using the reading comprehension strategy of Questioning the Author in their conversations with peers. Specifically, partners would question their peers about whether or not they would apply text-based strategies in their future classrooms, or how they might apply concepts from the pedagogical course-assigned readings to their future students. Therefore, for the purposes of this study, the reading comprehension strategy of Questioning the Author was used as an indicator of comprehension of pedagogical texts.

**Dialogic learning and multiple perspectives.** The act of academic questioning has been established as an effective way to share alternate views and opinions; however, this is but one strategy for facilitating the exploration of multiple perspectives valuable to a dialogic classroom experience. Halliday (1993) explains that, “all learning – whether learning language, learning through language, or learning about language - involves learning to understand things in more than one way” (p. 112). Of course, because individuals are capable of maintaining unique views and beliefs, in most cases a given situation can be viewed from varying stances. A defining tenant of the dialogic classroom is that knowledge is co-constructed and, therefore, multiple perspectives are required for adequate learning (Eeds & Wells, 1989; Fecho & Botzakis, 2007; Freire, 1970). Because learning is social, one individual’s perspective will not suffice; “one perspective begs the need for other
perspectives” (Fecho & Botzakis, 2007, p. 553). It is virtually impossible to know the perspectives of others without engaging in a discussion of beliefs and ideals.

Literature circles, for example, present a prevalent method for discerning multiple perspectives regarding non-informational texts; these forums for the discussion of literature are possible in offline classroom discussions as well as in online discussion forums and chat rooms (Larson, 2008, 2009). In her study with fifth-grade readers, Larson (2009) examined student responses to electronic books in an online forum. Following her analysis of the electronic reading workshop, Larson deduced that participation in online literature circles solicited a deep response from students, the sharing of student ideas, and the increased consideration of their peers’ ideas. Contrary to more common verbal scenarios for the consideration of multiple perspectives, Spence (2008) frames the process of writing as a social interaction in which the author pulls knowledge from peer views, comments and positions on a topic. Dialogic learning, in this case, occurs without the constraints of time and is capable of continually evolving depending upon the amount of communication one has with members of their society.

An alternate approach to understanding the components of dialogic learning is through the practice of Socratic Dialogue. Kingsley (2011) views Socratic Dialogue as a rigorous form of instruction that challenges high school English students to deduce their own knowledge and comprehension from the examination of evidence. Dialogic learning, in this sense, occurs when questions are posed, evidence is gathered and examined, and through discussion and argumentation, understanding is determined. Here, students are challenged to
communicate reasoning to one another and then discern which claims best meet their needs, thus, resulting in comprehension.

**Dialogic Learning & Comprehension**

When students engage in discussions about literature, they can collaborate to construct meaning, or simply share their comprehension of text with their peers (Berne & Clark, 2006; Eeds & Wells, 1989; Groenke, 2008). In fact, Matsumura, Garnier, and Spybrook (2012) analyzed the impact of literacy coaching on fourth and fifth grade student responses to text and deduced that, in fact, exchanges of dialogue in the classroom are critical to gains in higher level reading comprehension in upper elementary level students. In their meta-analysis on discussion as it is used as a pedagogical strategy for the facilitation of reading comprehension, Murphy et al. (2009) observed that a vast majority of studies were successful in enhancing upper elementary students’ literal reading comprehension, particularly the studies that focused on more efferent forms of reading. Murphy et al. (2009) also found that the majority of studies analyzed depicted approaches that were adept at elevating upper elementary student discussion while minimizing dialogue from teachers. Conversely, Eeds and Wells’ (1989) study of literature study groups as an instructional tool depicted fifth and sixth grade students and their teachers working together to construct simple meaning from texts; this form of discussion facilitates comprehension strengthening and building in literacy learners. Furthermore, such co-construction of meaning creates an inclusive classroom in which all levels of students are skillful when comprehending and learning (Eeds & Wells, 1989). As a result of her study examining elementary English
language learners writing practices, Spence (2008) maintains that writing is dialogic in nature because student writing is composed of ideas derived from social interactions in the classroom. Spence, therefore, explains that writing can also enable elementary level students to demonstrate their comprehension through the co-construction of meaning as they observe it exemplified in their community.

The affordances offered through dialogic learning have the potential to change how we view student success. Eeds and Wells (1989) note that one particular upper elementary age student in their study was viewed as a successful member of her literature study group, while in another classroom, the teacher deemed her to be a struggling reader. In this case, the student portrayed herself as successful through her writing, while verbally, she appeared to be struggling. This sentiment is echoed in Spence’s (2008) study; writing is positioned as a method for portraying the comprehension proficiencies of students rather than their deficiencies, which are commonly observed in alternate assessments of comprehension.

**Discussions about literature.** Discussing reading is a common pedagogical strategy used by educators working with all age levels of students. Berne and Clark (2006) specifically examined ninth grade student discussions about literature for the utilization of comprehension skills such as comparing/contrasting, questioning, interpreting and summarizing, among others; not only did Berne and Clark (2006) observe students using comprehension related talk, but they also found that this talk dominated the duration of the discussion. Therefore, as evidenced by Berne and Clark, if students possess the skills required for comprehension of text, they are capable of then strengthening their reading
comprehension through peer discussions by simply replicating these comprehension strategies through dialogic writing with a peer. Berne and Clark’s (2006) study examining student discussions for instances of their use of comprehension strategies provides an example of how indicators of reading comprehension occur whether in oral discussions or in the dialogic learning log conversations of preservice teachers as in the current study. In their meta-analysis of discussion and its impact on reading comprehension, Murphy et al. (2009) concluded that available research proved literature circles to be highly effective in establishing student talk with reading comprehension becoming a resulting outcome. While literature circles engage students in a discussion on literary works that are not characterized as informational, it is possible that such circles of discourse could be replicated with informational texts that require a more efferent reading stance. Furthermore, dialogic learning logs present a potential platform for written discussions about informational texts amongst students.

**Literature logs and instructional conversations.** Perhaps the juxtaposition of written and oral discussion may benefit literacy learners more so than class discussions alone. Saunders and Goldenberg (1999) studied upper-elementary student reading comprehension growths as they were impacted by the implementation of literature logs and instructional conversations. Student participants in this study completed literature logs in which they responded to their literary readings in written form with the guide of a teacher-assigned prompt; this form of instruction produced significant growth in student reading comprehension as evidenced by their scores on a posttest. Likewise, Saunders and
Goldenberg (1999) observed that instructional conversations, defined in this case as teacher-facilitated conversations about text and clarifying content knowledge, caused student reading comprehension scores to increase significantly. Additionally, student comprehension gains were at their highest when literature logs and instructional conversations occurred together (Saunders and Goldenberg, 1999). This research from Saunders and Goldenberg strongly advocates the implementation of dialogic learning in the classroom as a facilitator of reading comprehension. Such face-to-face discussions are possible to replicate through written conversations in online spaces, and may reach comparable comprehension building potential.

Another form of instructional conversation used frequently in the literacy classroom is Questioning the Author (QtA), a reading comprehension strategy grounded in discussion in which readers are encouraged to challenge the author’s stance and motivations. In their study probing the effectiveness of teacher coaching as it can strengthen classroom text discussions using an intervention that advocates QtA, Matsumura, Garnier, and Spybrook (2012) found that upper elementary teachers with coaching in discussion strategies reflected classrooms with high quality text discussions in comparison to those who did not. This study not only proves the worth and effectiveness of discussion-based comprehension methods such as QtA, but also stresses the importance of enabling educators to act as strong mediators for discussions about text in class in order to strengthen student comprehension. Preservice teachers attempting to comprehend the pedagogical texts assigned in their preparatory classes may utilize comprehension strategies such as QtA when engaging in online discussions about pedagogy with their peers. Furthermore, in Murphy et al.’s (2009) meta-analysis of the effect
of discussion on reading comprehension, it was observed that the QtA approach produced strong effects on text-explicit comprehension and equally strong effects on critical thinking and reasoning. These observations depict that QtA, a reading comprehension strategy that is strongly rooted in dialogic learning, has the authority to facilitate student reading comprehension with informational texts. In a similar vein, the writing in dialogic learning logs, as observed in my previous pilot study, reflected student use of QtA, suggesting that reading comprehension strategies replicated in peer-to-peer writing enabled the students to gain further pedagogical comprehension.

Another method of instruction that attempts to facilitate reading comprehension through dialogic learning is reciprocal teaching; Palincsar and Brown (1984) explain that reciprocal teaching engages teachers and their students in a controlled dialogue guided by specific skills of reading comprehension, such as summarizing or predicting, in order to jointly construct meaning. VanDeWeghe (2007) explains that this method of reading comprehension instruction presents meaning making as an outcome that occurs through a dynamic dialogue amongst an expert (the teacher) and a novice (the student). Although constructivism posits that students should primarily construct meaning and teachers should maintain a minimal role in discussion, constructivists would not deny the necessity of an expert model for novice learners (Kingsley, 2011). Therefore, students seeking to engage in reciprocal teaching methods through dialogue regarding text can achieve this goal, so long as an educator helps to oversee their conclusions and interpretations.
**Writing as dialogic learning.** While reading comprehension strategies are primarily utilized in classrooms with face-to-face instruction, the 21st Century classroom employs online spaces with no face-to-face instruction. These strategies are required to play out in alternate ways; dialogic writing may enable the replication of such comprehension strategies. Spence (2008) frames the process of writing as dialogic learning in that through writing, students demonstrate knowledge through the borrowing of factual information, concepts and phrases from the communities in which they belong. The weaving of these external data to support meaning in a written form has the power to be used to demonstrate comprehension (Spence, 2008). While writing may not present itself as the most obvious form of dialogic learning as a means to demonstrate comprehension since it typically occurs with only one person, writing enables a platform for each student voice to be heard, especially the more passive student who fades into the background in classroom settings (Kingsley, 2011). In this manner, students are still afforded the ability to prove their comprehension to the instructor.

**Dialogic Learning in the 21st Century**

While there are many forms of classroom-based dialogic learning techniques available for pedagogical implementation (Murphy et al., 2009), the Internet and social media formats widely used in the 21st Century classroom present an alternate space for the continuation of the discussion of text (New London Group, 1996; Murphy et al., 2009; Larson, 2009). Today’s generation of students are accustomed to receiving and processing information at a rapid speed thanks to the media and the Internet (Leu, Kinzer, Coiro & Cammack, 2004); therefore, embracing technologies with which students are comfortable to
further their collaboration with peers potentially presents a rich learning environment because they will not need to learn an unfamiliar program or webpage format. Finally, as a result of their meta-analysis Murphy et al. (2009) determined that the incorporation of various forms of discussion in the literacy classroom encourages strong text comprehension among learners. This finding suggests that while engaging students in a face-to-face dialogue about text and its complexities is helpful to their comprehension process, incorporating *multiple* forms of dialogic learning are most necessary to attain the maximum benefits of dialogic learning as it seeks to accomplish student comprehension goals.

**Dialogic learning turns to online discussion.** An alternative to face-to-face dialogue can be online discussion held either synchronously or asynchronously. The Internet is a social environment that creates a multitude of collaborative possibilities for students in the 21st century classroom. Socially constructed learning situations afford students the ability to comprehend issues from multiple viewpoints, create meaning in a social manner, and become active in the learning process (Berne & Clark, 2006; Eeds & Wells, 1989; Zong, 2009). Chat rooms, discussion boards, forums and blogs are only a few of the platforms that encourage communal discussion.

In a study examining how preservice teachers develop global understanding through computer-mediated communication (CMC), Zong (2009) found that online discussions supported learning that was genuine in its ability to encourage the consideration of multiple perspectives, dynamic in that it allowed for engaging conversations, and powerful due to its ability to publish personal thoughts and ideals. Echoing this finding, in their paper on how
information and communication technologies (ICTs) have enhanced teacher education programs. McPherson, Wang, Hsu, and Tsuei (2007) charge that small online discussion groups enable “authentic interaction, collaboration, communication and publication” (p. 27).

Solidifying McPherson et al.’s (2007) claims, Larson (2008) completed a study in which she observed university students as they interacted in online literature response groups. While students expressed some added stresses from the incorporation of foreign technologies, they were capable of expressing and sharing their transactions with literary texts in literature response groups online. Furthermore, students upheld dialogues and debates on the texts they read with their peers. The rich conversations that can occur in such online discussion groups certainly facilitate further comprehension of the concepts presented in offline reading.

A valuable space for online, written communication occurs in the form of a blog. Research has shown that college-aged students find blogs to be an attractive online form of publication that enables them to maintain connections with family and peers (Trevino, 2005). Along with being an online tool for the publication of ideas and concepts, blogs are a gratifying instrument for collaborating with others (McPherson, et al., 2007). Specifically, the template of a blog enables personal reflection as well as communal learning by the means of external links as well as comment and reply features (Mortensen, 2008). Through the interactive process of blogging, individuals can reflect on their topics of choice and receive feedback from others through online comments. Blogs also permit the response to readers’ comments, making asynchronous written communication attainable. Mortensen explains that,
“In the world of blogs...bloggers frequently link to and comment on other blogs, which creates the sense of timeliness and connectedness one would have in a conversation” (pp. 453-454). In this action, it is possible that students can reflect on their course readings by writing their reactions and interpretations in a blog post, and they can then receive further feedback and viewpoints from their peers in resulting comments. Such rich interaction is the basis for why Mortensen (2008) refers to the blog reader as a “participant” (p. 452). This form of CMC honors socially constructed meaning with an asynchronous approach of discussion.

**Dialogic learning in asynchronous spaces.** While a great deal of research on CMC frames itself with constructivist views (e.g., Berne & Clark, 2006; McPherson et al., 2007; Zong, 2009), Kingsley (2011) claims educators overuse this assumption when they truly intend to reflect the tenants of Socratic Dialogue. Kingsley (2011) explains that Socratic Dialogue, or the reaching of conclusions through discussion with others, presents itself in its highest form through asynchronous discussion in online environments. Along with providing a secure space for high school students to participate in a debate, develop writing skills, and support arguments with research, online asynchronous discussion upholds the intentions and goals of Socratic Dialogue by enabling students to build and strengthen their own comprehension by learning from others.

Applying Socratic Dialogue in online spaces, Hammond’s (2000) study with adult learners as they engaged in online discussions for a university level course found that learners enjoyed the flexibility asynchronous discussions offered because they could
complete tasks at their leisure without intruding on the time of their peers. However, participants in this study also expressed displeasure in the lack of social interaction while completing posts in the discussion forum format; these learners expressed that this issue, among others, could result in a lack of contribution in the learning environment (Hammond, 2000). While this study reflects that adult learners appreciated the incorporation of online asynchronous discussion in their learning environment, it also sheds light on the fact that students felt as though this form of online discussion hindered a social learning environment because of the lack of real-time response from peers.

**Dialogic Learning & Preservice Educators**

Research at the classroom level clearly supports the benefits of dialogic learning in the 21st Century classroom. Additionally, the goals and objectives of the Common Core State Standards Initiative (National Governors Association Center for Best Practices, 2010) portray the importance of creating learning environments rich in global awareness and laced with technological supports. These recommendations for instruction are critical for preservice teachers to understand. Future educators need to discern how to accomplish the goals of traditional curriculum with 21st century learning tools; moreover, they need to experience these pedagogical methods for themselves prior to attempting their implementation in the classroom. The *Guidelines* (2006) mention the incorporation of computer-mediated communication (CMC) as a possible solution for the continued support of beginning teachers; through electronic discussions such as electronic mail, beginning teachers could discuss issues and questions with their university professors. Currently, CMC is utilized not
only for professional development, but also as a valuable instructional tool. Preservice teachers engaging in courses that utilize online components, distance education students engaging in purely online courses, and in-service teachers seeking professional development in online environments all exemplify the ways in which online discussion has infiltrated the English language arts teacher preparation program. Furthermore, English language arts educators who value the rich discussion made possible through online discussion of text have called for increased research in regard to online discussion as a pedagogical tool (Larson, 2008; 2009).

While it has been established that dialogic learning facilitates reading comprehension (Berne & Clark, 2006; Eeds & Wells, 1989; Murphy et al., 2009; Palincsar & Brown, 1984; Saunders & Goldberg, 1999) and such learning can occur in online forms (Hammond, 2000; Kingsley, 2011; McPherson et al., 2007; Mortensen, 2008; Zong, 2009), an examination of how preservice teachers develop a baseline understanding of pedagogy through dialogic learning is necessary to better prepare candidates for their future careers.

**Preservice teachers and structured CMC.** As evidenced in Zong’s (2009) study, preservice educators believed CMC to be a valuable learning tool to facilitate meaningful discussion in order to comprehend the perspectives others have about a given topic. Many preservice teachers have yet to experience the classroom environment while reading informational texts about pedagogy. Exposing themselves to multiple perspectives from peers on a singular topic presented by authors such as how to teach writing to middle school students would be extremely beneficial to their learning process. Zong (2009) mandates that
in order to develop and advance competencies in preservice educators, CMC as it occurs in discussion forums should be structured, guided, and then reflected on in an offline discussion. Simply requiring that students discuss what knowledge they gained from texts in an online forum will not suffice; it is important to provide guidelines for discussion to facilitate maximum comprehension of textual concepts.

**Preservice teachers and safe dialogic spaces.** Providing preservice teachers with structure and exemplary guidance helps to ensure they are both confident and prepared. Groenke (2008) stresses the importance of creating “practice” for preservice educators in taking a critical stance on young adult literature prior to entering the classroom so as to be prepared for risk-taking in teaching; she offers this opportunity for her preservice teachers through CMC with student pen pals. Groenke (2008) examined the dialogic pairings of middle school students with preservice teachers at the university level; the dyads held conversations in which they analyzed and critiqued young adult literature. According to Groenke, this experimentation of risk-taking in a safe environment affords preservice teachers with the ability to make mistakes; it can be argued that allowing students to make mistakes in pedagogical decision-making prior to entering the classroom is much more beneficial than stressing the importance of making as few mistakes as possible. Enabling preservice teachers to have a dialogic space for the consideration and proposed application of the various pedagogical methods available for the instruction of content allows them to build on their comprehension of the informational texts they read in class.
It is also possible that in such dialogic spaces utilizing CMC, participants share their personal transactions (Rosenblatt, 1978) regarding particular pedagogical methods. For example, preservice teachers may have experienced a proposed method of instruction in their own schooling and found it to be beneficial; they may share this outlook with a peer who found the method to be questionable and, thus, help to change their understanding of its effectiveness. Therefore, the preservice teachers first learn from the informational texts, and then from one another’s individual transactions with the text. In this potential dialogue exchange, a peer has helped to further a classmate’s comprehension of a pedagogical method by presenting their personal interpretation of content, thus enhancing their understanding of the text.

**Dialogic learning and preservice teacher collaboration.** Perhaps the most dire call for dialogic learning in preservice education occurs when Gratch (2000) makes the claim that preservice teachers become best prepared to take on their roles in the field when they have the opportunity to discuss and evaluate preservice fieldwork experiences in comparison to what they learn in their preparatory classes. Creating a communal environment in which preservice teachers can discuss shared experiences and offer helpful advice to their peers is not only beneficial to the learning process, but it also prepares preservice educators for their future roles in professional learning communities.

Similarly, Grumet (1989) charges that students in education need to be given opportunities in which they learn how to support one another; “their capacity to influence curriculum, to influence the climate of their schools, to learn from each other, and to share
responsibility for children will rest on their ability to work together” (p. 16). Fostering collaborative relationships with other coworkers certainly helps one become a successful teacher (Gratch, 2000). Because preservice teachers aspire to become valuable assets to the community, their perspectives are critical components in the dialogue addressing issues in education (Grumet, 1998). These landmark studies in teacher education establish the importance of collaborative conversations among preservice and in-service teachers alike. Therefore, preservice teachers would largely benefit from engaging in a shared dialogue permitting them to explore past educational experiences and how these experiences help to shape their pedagogical beliefs and values. This notion is echoed in more recent research in teacher education, which continues to support the value of collaboration (Schussler, Stookesbury, & Bercaw, 2010; Takahashi, 2011; Ticknor, 2010). While some candidates may offer their peers the ability to learn from negative experiences, others may provide more positive experiences that serve as exemplary models. This shared dialogue can also serve as a model for future learning in the field; when preservice teachers are given the opportunity to work with their peers, they better understand how to replicate such collaboration in the workforce.

Teaching standards require educators to be reflective practitioners, changing their pedagogy as they grow and develop throughout the course of their careers (Council, 2006). One way that educators meet this requirement is by reflecting on each lesson that they deliver and its strengths, weaknesses, successes and failure; such reflection enables educators to change, or refract, further strengthening their pedagogical knowledge (Pope, 1999). In order
to prepare preservice teachers for their careers in the field, it is critical that they begin the process of reflecting and refracting upon their pedagogy while they have the opportunity to practice and learn from their own successes and failures. Schussler, Stookesbury, and Bercaw (2010) explain that continual reflection upon teacher candidates’ personal assumptions will enable them to be more aware of their dispositions, rendering them more effective in the classroom; “only through understanding how teachers are inclined to think and act in different teaching situations will those involved in teacher education engender effective teachers of the highest quality” (p.362).

Schön (1983), Grumet (1981,1987) and Freire (1970) share a common belief that the processes of teaching and learning are highly social in nature, and through discussion, greater learning is made possible. Schön (1983) maintains that reflective practitioners are effective teachers who shape curricular content for individual student needs. However, such reflection, Schön (1983) explains, should be permitted to occur in a community so that teachers can learn from one another’s experiences. Grumet (2010) echoes the importance of reflecting upon practice in a community discourse, stressing the importance of solidarity amongst educators. Furthermore, reflecting on past educational narratives fosters the discussion of pedagogical beliefs and ideologies with colleagues, allowing teachers to become more effective in their craft. Freire (1970) reiterates the importance of teacher collaboration through dialogue; he explains that equitable dialogue is the true vehicle for learning. Therefore, establishing teacher education programs characterized by equitable learning,
communities of practice, and dialogic inquiry will help to ensure effective teacher preparation.

**Preservice Teachers & Professional Language Development**

Prior to entering the workforce and beginning their efforts with students, teachers are required to undergo significant preparation. Along with developing mastery of the subject matter they will teach, it is recommended that educators learn the craft of pedagogy and familiarize themselves with a sampling of tools available for the facilitation of successful instruction. In order to become a member of the teaching community and become proficient in the field, an understanding of professional language is necessary; mastery of educational discipline-specific vocabulary enables teachers to work with one another in communities of practice.

**Preservice teachers and pedagogical development.** Shulman (1986) identifies teacher pedagogical content knowledge as being comprised of three components: subject matter knowledge, pedagogical content knowledge, and curricular knowledge. It is not enough to merely comprehend the content or possess a myriad of pedagogical strategies; content and pedagogy should be fused in a manner that enables the teacher to understand how to deliver content in the most beneficial way for learners. This instructional ability, according to Shulman (1987), represents pedagogical content knowledge (PCK). Attainment of such knowledge requires teachers to master content deeply, rendering them capable of explaining material in multiple ways for students. Likewise, teachers should understand that “a knowledge base for teaching is not fixed and final” (Shulman, 1987, p.12); education is a
field characterized by new growths and developments, requiring teachers to maintain continual learning in both content and pedagogy. Furthermore, Shulman (1987) explained that pedagogical content knowledge implies a flexible, interactive teacher capable of “tailoring” instruction based on student needs.

Echoing Shulman’s (1987) call for pedagogical content knowledge in teacher education curriculum, Ball (2000) claims “understanding subject matter is essential to listening flexibly with others...knowing content is also crucial to being inventive in creating worthwhile opportunities for learning that take learners’ experiences, interests and needs into account” (p. 242). In this manner, Ball (2000) establishes that insufficient content knowledge acts as a hindrance for effective pedagogy, further prohibiting pedagogical content knowledge. The identification of content knowledge as it correlates with pedagogy is reinforced by Darling-Hammond (2000). For optimal teacher education, Ball (2000) maintains that juxtaposing knowledge and practice is key; she further explains that situated learning in the teacher preparation curriculum is vital for teacher candidates. According to Ball (2000), “grounding the problem of teachers’ content preparation in practice” may help close the gap between content knowledge and pedagogical practice; this sentiment is also supported by Putnam and Borko (2000), who express the importance of bridging the gap between university instruction and the classroom experience. Therefore, preservice teachers’ development of pedagogical content knowledge is largely dependent upon a proficient understanding of the subject matter, a wide knowledge-base of pedagogical methods, and a general understanding of how to best deliver the content to students. While preservice
teachers can be taught a wide array of concepts through their schooling, ultimately, they must understand that the field of education is characterized by continual learning and development within a community of learners, particularly because “a knowledge base for teaching is not fixed and final” (Shulman, 1987, p. 12). Chen and McCray (2012) propose the Whole Teacher Approach as an optimal model for in-service teachers’ professional development; this approach addresses the importance of not only pedagogical content knowledge, but also teacher dispositions and efficacy. This approach establishes the interrelatedness of many defining traits of effective educators that could also be beneficial for preservice teacher preparation.

**Preservice teachers, professionalism, and professional language.** Literature largely supports dialogue for the facilitation and renewal of professional development (Bales & Saffold, 2011; Darling-Hammond, 2006; Dottin, 2009; Putnam & Borko, 2000). Specifically, Takahashi’s (2011) case study with four in-service teachers revealed that educators who interact with one another in professional communities of practice exhibited increased efficacy. However, in order for a teacher to successfully assimilate into a professional community, they must first understand the professional language unique to the field of education; this process begins at the teacher preparatory program level.

Packer and Goicoechea (2000) define the process of enculturation as “picking up the jargon, behavior and norms of a new social group” (p. 229). Indeed, teacher candidates are required to learn an immense amount of professional language on their path to enculturation. In their exploratory study of how undergraduate educational psychology students developed
professional language in a problem-based learning course, Chernobilsky, DaCosta, and Hmelo-Silver (2004) deduced that students demonstrated an increased use of professional vocabulary across the semester through learning discipline-specific language and participating in problem-based learning situations with their classmates. This research supports the notion that, when given the opportunity to experiment with discipline-specific professional language with their fellow classmates, preservice teachers may become better prepared for assimilating into the workforce. Exhibiting successful command of professional language ensures that teachers present themselves as both knowledgeable and capable to students, parents, colleagues and administrators. Furthermore, the utilization of professional language characterized by discipline-specific vocabulary enables preservice teachers to enact pedagogy and construct professional identities (Ticknor, 2010). Wilson and Wineburg (1993) position teachers’ written feedback to students as “windows into teacher thinking” (p. 739); thus, the professional language that educators utilize not only indicates their pedagogical content knowledge, but also allows them to communicate to students, parents, colleagues and administrators in a professional manner.

Implications for Research

A review of existing literature has been presented in order to examine the role of peer-to-peer dialogue in online settings with preservice teachers as a means to (1) demonstrate comprehension of advanced-level informational texts depicting pedagogical knowledge, and (2) serve as a vehicle for the development of a professional voice.
Unfortunately, stress from factors such as testing and lack of instructional time can hinder instances of discussion in the classroom and cause teachers to revert to more traditional pedagogical methods such as lecture, even though a great deal of research maintains that progressive styles of teaching are more engaging while still capable of achieving comprehension gains (Larson, 2008; Bell, Ewaida, Lynch, & Zenkov, 2011; Hickey, McWilliams, & Honeyford, 2011). Matsumura, Garnier, and Spybrook (2012) charge, “The difficulty of breaking from traditional patterns of classroom discourse and enacting high-quality interactive discussions is a constant barrier to instructional reform.”

Likewise, Fecho and Botzakis (2007) point out that honoring student dialogue can even be considered uncharted territory for some secondary educators; because they are unfamiliar with addressing issues outside of explicit curriculum, they may tend to avoid such discussions entirely. Further research examining both the quality and amount of instructional time offered for meaningful, online discussions of text is imperative in order to determine the best pedagogical methods for the implementation of online dialogue in the curriculum.

Furthermore, while Zong (2009) reported that preservice educators enjoyed gaining multiple perspectives from online discussion groups, he also found that CMC was not a valuable tool for the discussion of more serious, controversial topics. In a similar vein, Groenke (2008) also found that CMC was beneficial in creating dialogue; however, it also seemed to hinder the instances of critical talk, resulting in “missed opportunities” (p. 229). This finding would suggest that while a dialogue detailing the best pedagogical methods for teaching writing, for example, might be adequately accomplished online, an online
discussion regarding how to address more controversial student concerns like terrorist attacks or gender roles would not be the preferred space for valuable instruction.

A great deal of research exists on the topic of both online and offline literature discussions as a means to achieving successful reading comprehension gains (Berne & Clark, 2006; Eeds & Wells, 1989; Groenke, 2008; Hickey et al., 2011; Larson, 2008, 2009; Murphy et al., 2009); however, further research on the topic of online discussions as they can be utilized as a means to strengthen reading comprehension with informational texts is necessary, especially given the fact that the Common Core State Standards Initiative (2010) has suggested that informational texts need to become more prevalent in English language arts curriculum. In this nature, literature circles could potentially be renamed as informational text discourse circles; these discourse circles could be highly beneficial for preservice teachers seeking to extrapolate concepts learned from texts with their peers.

Furthermore, research regarding the use of peer CMC as it can be utilized to further the comprehension of pedagogical texts is necessary for determining the effectiveness of dialogic learning in the preservice education classroom. In particular, research on how students develop professional language through the reading of these pedagogical texts, and in turn experiment with this language among their peers to foster further comprehension would be beneficial for teacher educators. Preservice educators are neophytes when faced with the vast vocabulary that educators use on a daily basis in the field; thus, peer discussions that foster the comprehension of and practice with this professional language enable them to grow in a safe, risk-free manner. Groenke (2008) calls for the creation of safe spaces in which
preservice educators are capable of reflecting upon their personal education experiences prior to entering their own classrooms. I would argue that it is imperative to allow for this reflection, along with the reflection of which pedagogical methods preservice educators envision utilizing in their future classrooms.

Finally, as evidenced by Hammond’s (2000) study with online learning environments, some students enjoy engaging in asynchronous discussion as a learning tool, while others found that this discussion occurring without the constraints of time to be harmful to social learning opportunities. As a result, further examination of asynchronous learning environments could determine if students can achieve successful social learning situations in asynchronous online discussions.
CHAPTER THREE: METHODOLOGY

Introduction

The purpose of this qualitative case study was to explore how English language arts and social studies preservice teachers used an online space for a dialogic learning experience. Specifically, I analyzed the digital dialogue of nine student pairs from a teaching writing across the curriculum preservice course, and selected three student pairs for in-depth examination. I conducted an analysis of dialogic learning log transcripts, as well as student reflections on the assignment itself. The transcripts detailed asynchronous conversations between student pairs about assigned course readings, assumptions about future teaching experiences and course activities. The mid-semester reflections provided student views on what they had learned to that point, as well as the process they used to accomplish their dialogue, and their goals for the rest of the semester. At the end of the semester, the final reflection from the preservice teacher candidates included the themes they found in their dialogic learning log as well as insightful comments regarding the dialogic learning log experience.

The purpose of the dialogic learning log assignment is to provide a space for the development of professional teaching language, as well as to facilitate reflective practice. The course itself is dynamic; along with requiring discipline-specific readings, assignments and class activities, it also enables students to work one-on-one with middle school students. As a result, class time is limited, so the dialogic learning log also provides the students with a space for in-depth discussion on course readings and their connections to class experiences.
Because the students in this study were aspiring educators, they were not masterfully familiar with discipline-specific vocabulary; therefore, it was the professor’s belief that through the discussion of assigned readings with a peer, students would be capable of experimenting with this new language in a safe, controlled manner. Through the analysis of student dialogic learning log transcripts and assignment reflections, I sought to extrapolate examples of professional language demonstrating students’ pedagogical knowledge, as well as signifying student growth throughout the length of the assignment.

Prior to beginning this research study, I conducted a pilot study. Data from my pilot study depicted professional language, reflection and refraction, and preservice teachers’ teacher-selves in varying ways across the cases. Ultimately, data analysis from my pilot study revealed that the dialogic learning log was a productive space for students to develop their reflective selves (Schön, 1983). As a result, I also sought to identify whether or not the students exemplified the ability to reflect on their pedagogical beliefs and ideologies through their discussions with peers about class activities, assigned reading, and even past educational experiences. Pope’s (1999) concept of reflection and refraction aided in identifying instances of reflections in the dialogic learning logs.

The preservice teacher candidates from my pilot study displayed a shift from viewing themselves as students to viewing themselves as teachers through their discussions in the dialogic learning log. Thus, I also sought to identify in the current research study if this pivotal shift occurred in this group of preservice teachers by examining their discussions and identifying how they referred to their future students.
**Research Design**

In order to address the purpose of this study, as well as the research questions guiding it, a qualitative approach to research was employed. Qualitative research occurs in a natural setting in which the researcher plays a pivotal role; throughout this research process, multiple forms of data were analyzed in order to reveal complex patterns and themes that provide further information about the participants (Creswell, 2013). Because I analyzed participant discussion as it occurred in an online setting to gain further insight into their learning developments, a qualitative approach was best suited to explore this issue. Furthermore, Creswell (2013) posits that qualitative research is used to further probe problems in order to gain a “complex, detailed understanding” (p. 48); it was my goal to delve deeply into the interactions between the students to observe the metamorphosis of their pedagogical conversations.

Stake (1995) maintains that qualitative case study research allows researchers to understand the individuality and complexity that is the chosen, bounded case. Therefore, because this dialogic learning log assignment was individual to the students in this particular course, the application of a case study approach was fitting. In order to further determine how a written dialogue can facilitate the learning of professional language in preservice teachers, I found it necessary to select multiple cases for this study; thus, an instrumental, collective case study approach was employed for this research. As suggested by Yin (2009), a cross-case analysis was performed upon completion of the within-case analysis to identify any shared patterns and themes among the cases.
The data for my study largely consisted of written conversations between nine student pairs. In total, there were 85 entries analyzed in the nine dialogic learning logs; it is important to note that some of these entries included multiple exchanges between the partners. While one pair composed six entries and another composed eight entries, three of the pairs logged nine entries, one pair composed 10 entries, two pairs composed 11 entries, and one pair logged 12 entries. Such diversity in numbers of exchanges reflects the individuality of each pair.

The written conversations held between the preservice teachers were both lengthy and rich with data. Fraenkel and Wallen (2003) explain that content analysis is utilized when analyzing written communication; it is an exceptional tool when analyzing data. Expanding upon this definition, Krippendorf (2013) posits that content analysis “entails a systematic reading of a body of texts, images, and symbolic matter” (p. 10). Content analysis has gained increased popularity in both qualitative and quantitative research as a result of the increased amount of textual data being produced in digital formats (Krippendorf, 2013). However, Krippendorf (2013) cautions that researchers performing content analysis should not limit themselves by focusing purely on the text itself; a vital component to content analysis is understanding how the composers of the text use their creations socially. Therefore, although content analysis is a valuable methodology that enables researchers to examine textual data, it is important to understand that this data should be analyzed in an attempt to gain a deeper understanding of the individuals that created the data itself.
Qualitative content analysis is a methodology that allows for “the subjective interpretation of data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). Hsieh and Shannon (2005) explain that there are three forms of content analysis: conventional, directive, or summative. When performing conventional content analysis, a researcher determines themes as they present themselves in the text, and summative content analysis is conducted by counting or tallying key words or phrases and then interpreting their significance; both conventional and summative forms of content analysis were used for data analysis in this study because these methods facilitated successful answering of the research questions.

A summative content analysis (Hsieh & Shannon, 2005) was performed upon each dialogic learning log entry and reflection in order to achieve an in-depth perspective as to how students developed professional language throughout the semester. Specifically, I analyzed each data component in comparison to key words and phrases compiled from assigned course readings. Each mention of language derived from course readings was coded to reflect examples of discipline-specific vocabulary. This analysis aided in revealing the complexities of how preservice teachers developed professional language over the course of the semester. Exemplars of professional language instances as they occurred in the preservice teachers dialogic learning logs are provided in Appendix A of this document.

A conventional content analysis (Hsieh & Shannon, 2005) was performed upon each dialogic learning log entry and reflection in order to achieve an in-depth perspective as to how students exemplified the ability to reflect on their past educational experiences, their
current educational beliefs, and their future practices as teachers. Specifically, I used Pope’s (1999) reflection and refraction framework as a lens for the identification of reflections and refractions throughout the dialogic learning log transcripts. I used the student’s mid-semester and final reflection essays to help triangulate these instances. Conventional content analysis also enabled me to determine if the preservice teachers viewed themselves as students or teachers throughout their dialogic partnerships. Specifically, when students made comments about what teachers should do for their students, I determined that they envisioned themselves as students that would one day become teachers. However, when students made comments about what was best for “their” students, I determined that they envisioned themselves as educators.

**Research Questions**

The research design presented enabled me to examine students’ written conversations detailing both assigned course readings and course activities as a means to determine how preservice teachers develop professional language throughout a semester-long course in teaching writing across the curriculum. Because these students were aspiring educators, it was imperative to identify any pedagogical language use throughout student dialogic learning log transcripts in order to understand how students became prepared for their future service in the workforce. To organize the research agenda, two critical research questions guided the study:

1. How do preservice teachers develop professional language during a semester-long course that utilizes content-related, research-based readings?
2. How does an online, private and controlled, asynchronous dialogue with a peer enable preservice teachers to construct pedagogical knowledge?

**Site Selection and Sampling Criteria**

This study was conducted in order to determine how preservice teachers develop professional language and pedagogical knowledge through the means of discussion with peers on topics covered in assigned teacher preparatory readings. Because I knew that the professor required a dialogic learning log assignment in this course and that she was the only professor in this program enlisting such an assignment, purposeful sampling of the class was enacted.

The course in which this study took place is required for degree completion. Aspiring teacher candidates must take this course prior to any field experiences; thus, the students in the course were novices in the field of education. Because the course aimed to prepare preservice teachers for teaching writing across the curriculum, there was a heavy focus on composition and writing instruction. On the first day of the course, I observed that the students vocalized their apprehension toward writing, concerns about grammar, and the general desire to become skilled teachers. The professor established a climate of trust and an open dialogue with her class from its inception; students were asked to share their goals for the semester with each other and vocalize any fears or concerns they may have regarding their futures in teaching. This climate of trust and community helped to foster the supportive partnerships that are necessary for participation in the dialogic learning log assignment.
Through their dialogic partnerships, the students learned to voice their concerns, opinions, and questions with each other while learning best practices for writing instruction.

Students who completed the dialogic learning log assignment consistently and regularly made suitable participants for this study. Nine student pairs were available for analysis; these 18 students comprised the vast majority of the class since there were a total of 23 students enrolled. Of the 18 participants, there are seven males and 11 females; 14 of the participants are white, one of the participants is Asian, one of the participants is Hispanic, one of the participants is half-white, half-Asian, and one of the participants is half-white, half-black. Therefore, the 18 participants are diverse in both gender and race.

These students were all undergraduates in the College of Education at an urban university on the east coast and thus, were aspiring middle grades English language arts and social studies educators. It is important to note that these students had not yet completed their student teaching assignments; they had little opportunity to interact with other educators in the field, which could have encouraged them to use professional language. The fact that these students had minimal field interaction is beneficial because it helped to support the assumption that professional language was developed through course readings, rather than from field exposure. To account for student anonymity, all names were removed from dialogic learning log transcripts and student documents; they were replaced with pseudonyms.

While the vast majority of the data collected was in digital format via student logs, the researcher also engaged in multiple follow up discussions with the professor of the
course. Course documents such as the syllabus, class meeting notes, and student learning log reflections also served as artifacts for data analysis.

**Data Collection**

Throughout the duration of this study several primary course documents and dialogic learning log transcripts were collected. All data were analyzed to determine relevant themes.

**Interviews.** Stake (1995) posits, “The interview is the main road to multiple realities” (p. 64); thus, in order to better understand the course climate and gain additional information that I may not have gathered in the learning log transcripts, I engaged in numerous follow up discussions with the professor of the course during the semester as well as upon completion of my initial data analysis. While these follow up discussions were not conducted as formal interviews, they were comprehensive in nature and provided deeper understanding and awareness of the dialogic learning process, valuable insight into the professor’s motivations for including the dialogic learning log assignment as a learning tool in her course, information about how the professor observed her students develop throughout the course, and insight into how she believed students envisioned their pedagogical knowledge development as it progressed over the course. It is important to note that the follow up discussions with the professor of the course largely contributed to an awareness of the context of the course.

**Course documents.** To aid in the triangulation of data, documents supplied by the professor were gathered for further analysis. Students received instructions in the form of the syllabus and handouts for the dialogic learning log assignment; I received copies of these
handouts detailing the assignment instructions, the assignment rubric, the mid-semester reflection essay, and the final reflection essay. Not only did these documents aid in the triangulation of data, but they largely helped to establish a context for the researcher.

**Written artifacts.** Student dialogic learning log transcripts served as the major data source in this study. The researcher printed these transcripts from student dialogic learning logs and transferred them into Microsoft word documents in order to aid in the coding process. Dialogic learning log partnerships varied in their total number and length of entries; however, I coded a total of 85 entries for the purposes of completing this study. It is important to note that many of these entries included multiple exchanges; these digital exchanges replicated verbal conversations with multiple responses from discussants.

The dialogic learning log assignment required that each pair of students compose a mid-semester reflection on their writing process; these reflections also detailed the students’ plans to continue forward. Seven of the nine pairs supplied mid-semester reflections for analysis to aid in the triangulation of data; thus, two pairs did not provide mid-semester reflections for analysis.

Finally, the instructor asked that upon completion of the dialogic learning log assignment, the student pairs compose a joint essay serving as a final summative reflection on the assignment. These reflections provided an additional angle of insight into the students’ learning processes and development, which will also aided in the triangulation process. It is important to note that 17 of the 18 participants supplied final reflections for my analysis;
thus, one participant did not provide a summative reflection on the dialogic learning log assignment.

**Course texts.** Two textbooks were required for students in order to guide the reflections in the dialogic learning log: *Assessing Writing Across the Curriculum* by Duke and Sanchez, and *Inside Out: Developmental Strategies for Teaching Writing* by Kirby and Crovitz. I read the sections assigned to the students in order to identify specific vocabulary and professional language that students may or may not have added to their professional vocabulary. I conferred with an expert in the field as well that these instances of professional language derived from the course texts were appropriate examples of professional language in the field of education.

**Data Analysis**

Eighteen preservice teachers volunteered for participation in this study. These nine preservice teacher pairs served as instrumental cases (Stake, 1995) for this multiple case study. Initially, the researcher read each of the nine dialogic learning log transcripts and composed reflective notes. The researcher then performed data analysis procedures on all nine cases; specifically, the researcher read each of the nine preservice teacher pairs’ dialogic learning log transcripts and coded for instances of professional language, reflection and refraction, teacher-selves, and support. Once all of the data were coded, the researcher assessed how the themes revealed themselves across the cases to determine if there were commonalities across the cases. It was observed that three of the dyads shared strong instances of support, three of the dyads shared strong instances of reflection and refractions,
and three of the dyads shared strong instances of being hesitant to view themselves as teachers. Therefore, the nine dyads were separated into three clustered groups based on binding themes. Three focal cases from each of the clusters were selected for a within-case analysis (Creswell, 2013) because they were particularly instrumental of the themes found across the data, and then a cross-case analysis of all nine cases followed in order to examine common themes shared across all of the cases.

The data analysis process began with a summative content analysis (Hsieh & Shannon, 2005). I began by reading each assigned chapter listed in the course syllabus; discipline-specific language and vocabulary were highlighted and documented in order to serve as initial codes. These a priori codes were compiled from the course readings preservice teachers were assigned in order to allow for coding of specific textual references. Along with these codes, the researcher also sought instances of reflections and refractions in the collected data; definitions of reflection and refraction are derived from Pope (1999) and are provided in Chapter One of this document. In this manner, a conventional content analysis (Hsieh & Shannon, 2005) was performed at this stage of data analysis. Finally, I also coded the dialogic learning log transcripts to determine whether or not the preservice teachers envisioned themselves as professionals.

Open coding was utilized while reading student dialogic learning log posts, along with the application of the a priori codes. Specifically, I read each dialogic learning log transcript and highlighted instances of discipline-specific vocabulary. Exemplars of professional language as they were found in the preservice teacher dialogic learning log
transcripts are presented in Appendix A of this document. When I finished coding for professional language, I documented these instances in a chart, which allowed me to visualize how the preservice teachers used professional vocabulary over the course of the semester. I then used color-coding techniques on hard copies of the dialogic learning log transcripts and reflections to identify instances of reflection, refraction, and envisioning one’s self as a teacher. When I determined the theme of support, I then coded the dialogic learning log transcripts for supportive statements as well. Upon completion of the coding of the dialogic learning log transcripts, mid-semester reflections and final reflections were coded in order to identify if the established codes were also apparent in these documents. It is important to note that the researcher coded each case separately and composed the within-case analysis prior to beginning data analysis for the next case. Once each case was analyzed individually, themes were determined among the cases for the cross-case analysis.

**Research Validity**

Creswell (2013) explains that validation of one’s research enables the researcher to “assess the accuracy of the findings, as best described by the researcher and the participants” (pp. 249-250). While Creswell (2013) suggests eight methods for establishing validity, four methods of validation were utilized in this study.

**Prolonged engagement and persistent observation.** Because I served as a graduate research assistant in this course, I was an active participant of some class meetings. It is important to note that because I spent two previous years in this course as an aid to the professor, I knew the course well. Along with participating in meeting sessions, I had also
spent time planning for the course with the instructor so I could be highly aware of the class culture. The instructor also required that students provide detailed class notes for each meeting on the course website; these documents also provided insight into class discussions.

**Triangulation.** Stake (1995) explains that as researchers, we triangulate data in order to “increase confidence in our interpretation” (p. 114); thus, to ensure my themes were both valid and substantial, I collected multiple forms of data. Student dialogic learning log transcripts, mid-semester reflections and final reflection essays were gathered in conjunction with course documents and course readings. The numerous follow up discussions I engaged in with the professor of the course also added clarity to my research.

**Clarifying researcher bias.** Creswell (2013) claims that it is necessary for researchers to report all possible biases due to the fact that they may impact one’s study. In order to provide full disclosure, a subjectivity statement is included in this chapter detailing the researcher’s biographical information, personal beliefs, research interests, and potential biases that may have impacted the study.

**Rich, thick description.** According to Stake (1995), a rich, thick description allows the researcher to show the reader the exact encounters they experienced. To achieve this goal, richly detailed accounts are presented in the context portrait as well as enlightening excerpts from student dialogic learning log transcripts.

**Context Portrait**

The course in which my research was situated is designed to prepare preservice teachers for the effective instruction of writing across the middle grades curriculum.
Specifically, the course is designed for candidates seeking a degree in middle grades English language arts and social studies instruction. There are two required texts: *Inside Out* by Kirby and Crovitz, and *Assessing Writing Across the Curriculum* edited by Duke and Sanchez. The course syllabus delineates a summation of the course, curricular objectives, main assignments and their graded weight, which readings are due on specific dates, and other helpful information for the students. While the course meetings are face-to-face and occur weekly throughout the semester, the professor provides a course website housing all course documents, assignment handouts, weekly topics, and course meeting notes recorded by the students. Furthermore, during the face-to-face meetings, it is common practice that students engage in writing based on the discussion forums. Although the course meets face-to-face, the online discussions in the preservice teachers’ dialogic learning logs occur when the class is not in session.

The professor of the course, Dr. Bishop, is a white female who has not only taught the course for several years, but she also designed and developed it as a result of identifying a “need” in the teacher preparatory program; this course would not exist without her. A valued member of her department, Dr. Bishop works as a mentor to many of the aspiring teacher candidates. She believes in her students and aspires to help them become the best teachers they can be through situated practice.

Of the 23 students enrolled in the course, seven were males and 16 were females. In the most recent past course sections, student genders were not as balanced; thus, the higher number of male students in this particular course section was favorable to the class dynamic.
as well as my research study as a whole. Of the male students, five were white, one subject identified as half-white and half-black, and one was of Peruvian descent. Of the female students, 12 were white, one was black, one was Hispanic, one was half-Korean and half-white, and one was Asian. The students enrolled in the course aspired to be middle grades English language arts and social studies teachers. This course, along with the others they took this semester, would be their final one prior to beginning last year in the program when they would begin field observations and student teaching experiences.

The course in which my study was situated was comprised of multiple components. While the students in the course met weekly in a face-to-face, traditional classroom setting, there was a significant online presence to the course as well. The course website allowed for online discussions about course topics and peer writing samples, and the dialogic learning log discussions were also a virtual component to the class. Additionally, the course also employed a writing project component in which each preservice teacher pair was partnered with a middle school student from a local middle school. The preservice teachers worked with the middle school students in a one-to-one setting; their work together involved the creation of varied written pieces such as poems, short essays, and creative compilations.

The researcher attended a number of class meetings, including the first day of the course, to achieve a clearer understanding of the participants in this study, as well as the context of the course. One of the course meetings I attended was the initial day the course began. The classroom in which the course was held was large enough to accommodate the group of 23 students, but it still felt like close quarters. The professor apologized for this
environment on the first day of class and explained to her students that all prior sections of the course had been held in a much larger space; she clearly wanted her students to feel comfortable in their learning environment. To create a sense of community, the professor asked that the students arrange their tables in a “u” shape; in this manner, each student could see one another and interact easily. The majority of students seemed to know one another already as they conversed comfortably prior to the instructor beginning her class. Once all of the students appeared to be ready, the professor introduced herself to the students; she detailed her love of the course and of her profession prior to explaining the overall goals of the semester. The professor also introduced the researcher as her research assistant. Her greeting to students was warm and friendly; she situated herself as being caring and supportive. This tone continued throughout the duration of the semester.

Eager to begin their work together, the professor then directed students to the course syllabus. Each assignment was explained fully, and the students asked questions for clarification when applicable. The dialogic learning log assignment and mentoring writing project were discussed in depth, as they comprised two major assignments for the course. Perhaps because the dialogic learning log assignment was to begin immediately, students seemed to have the most questions regarding this project.

The professor requested that students write their dialogic learning logs in digital form and explained that they were “meant to replicate the language development you will have with your own colleagues when you become a teacher” [Dr. Bishop, Field Observations, 2014]. Dr. Bishop’s overarching goal for the dialogic learning log assignment was that
students would “experience writing as a tool for discovering, inquiring, questioning, exploring, and see the power of dialogic, collaborative writing as another tool for learning” [Handout, 2014]. A sample of the dialogic learning log model was provided; the professor explained that although purely hypothetical, the sample provides a clear example for how the digital exchanges should occur. Dr. Bishop explained that if students wanted to be an “A plus” partner to their peer, they should make connections to not only the text, but also to their partners. For successful elevation of thought processes, a dialogic learning log includes a balanced discussion in which one partner responds to another and vice versa. Stressing her goal further, Dr. Bishop explained, “talking about pedagogy needs to be a part of your life” [Dr. Bishop, Field Observations, 2014]. Because this course is one of the last the preservice teachers will take prior to beginning their work in the field, Dr. Bishop realizes that it is her responsibility to help facilitate a professional shift in her students. She explains to them,

I call this class the dotted line class. You’ve had some experience in your classes, but this particular class is really the beginning of your cohort, and then it’s also that you are starting to really think about yourself as a teacher...You’re kind of straddling the line between being a student and being a teacher. We’re trying to get ourselves ready for student teaching. [Field Observations, 2014]

Students were asked to pick their dialogic learning log partners during the first week of the course to ensure that their discussions did not fall behind. Dr. Bishop suggested that a Google document might provide itself as the easiest template for online discussions; she
explained that in previous courses, students unsuccessfully attempted to use blogs or electronic mail as discussion platforms.

During the observation of the second course meeting, Dr. Bishop required students to report their dialogic learning partners. Because there were an odd number of students enrolled in the course, there was one group of three females working together; these students did not participate in this research study. Dr. Bishop then reminded her students that the discussions in the dialogic learning log were to revolve around the course assigned readings and activities while making applications to their future careers in the field of teaching. Dr. Bishop explained that the dialogic learning log was not meant to be a space for the summarization of course readings; rather, students were directed to extract concepts that resonated with them and expound upon them with their peers. To ensure her students comprehended the assignment goals prior to beginning their dialogic learning log discussions, Dr. Bishop reiterated, “the reading is done to dance with the ideas, and then you are responding in the dialogic learning log to your partner” [Field Observations, 2014]. After reminding her students that she would provide feedback in their dialogic learning logs, Dr. Bishop affirmed that the students were ready to begin their discussions.

While some students began their discussions immediately, others were late to begin. Dr. Bishop periodically checked in on each dialogic partnership virtually, leaving feedback in the form of document comments. Common remarks prompted students to write to one another and remember their audience, elaborate upon their thoughts, as well as echoing a sentiment made from a student. Occasionally, Dr. Bishop nudged the preservice teachers to


increase the length of their discussions, or work on responding to the reading rather than summarizing the material.

At the mid-semester mark, the preservice teachers were asked to compose a reflection on the dialogic learning log process thus far. At this point in the semester, the preservice teachers had completed at least five entries in their dialogic learning logs. Per the information on the assignment handout, the students were asked to describe the process used to complete their dialogic learning log thus far, provide a discussion of what they had learned from the texts and the course in their collaborative discussions with their partners, and explain their plan for proceeding with the dialogic learning log. Dr. Bishop read each reflection essay and provided thoughtful feedback to her students, guiding them in their efforts to engage in successful dialogic learning partnerships.

The preservice teachers composed a minimum of four additional dialogic learning log entries (except for two partnerships, one of which composed six total entries, and the other composed eight total entries) responding to assigned course readings, their one-on-one work with a middle grade student, and their development of a unit plan with a focus on writing instruction. Two weeks prior to the final course meeting, Dr. Bishop asked that the students submit their dialogic learning logs for review along with a summative reflection on the dialogic learning log process. Per the assignment handout, the summative reflections were to be composed after the students re-read their dialogic learning logs in their entirety and determined three to four themes that occurred throughout their writing. Dr. Bishop asked that
the students write their summative reflections in the form of a letter, describing how they observed the themes in their dialogic partnerships.

**Reliability**

Creswell (2013) posits that reliability is imperative to ensuring accurate findings in one’s research. Because student entries were written, they were essentially “transcribed” in their purest form and thus, are less likely to be misconstrued during the transcription process. Finally, the triangulation of multiple data sources also helped to ensure data reliability.

Krippendorf (2013) posits that,  
The reading of textual data...must be replicable elsewhere, which would demonstrate that researchers agree on what they are talking about. Here, then, reliability is the degree to which members of a designated community concur on the readings, interpretations, responses to, or uses of given texts or data. (p. 268)

To ensure reliability of coded data, the researcher consulted with an expert in the field of teacher preparation. Specifically, upon completion of coding, the researcher met with this expert to share findings and discuss them at length, including instances of professional language, reflection and refraction, teacher-selves and support. The expert examined and confirmed the recorded examples derived from the dialogic learning log transcripts, mid-semester reflections, and summative reflections. Furthermore, for the code “professional language,” the researcher also consulted the course texts to determine possible instances of professional language that the preservice teachers might use in their dialogic learning log conversations. In this manner, the coding of the data was confirmed as reliable.
Limitations of the Study

The instructor of the course designed the dialogic learning log assignment as a means for students to engage in a private dialogue analyzing the course activities and assigned readings. In previous years, the assignment was completed in various formats, the most frequent being a written document in a journal or through e-mail exchanges. This semester, the instructor required students to utilize a blog, Google document, or other online format for the dialogic learning log process in hopes that the technology might enhance the ease and efficiency of the assignment. Because this was a new format requirement by the instructor, she altered her pedagogy and may not have experienced the success that she had in the past with this assignment. This new instruction could have significantly impacted the success and performance of the students, which may be reflected in student transcripts.

An additional limitation to the study presented itself when two of the participants did not provide mid-semester reflections. Furthermore, one of the participants did not provide a final reflection of the dialogic learning log process. These three units of analysis hinder triangulation; however, I received 78% of the mid-semester reflections and 94% of the final reflections from participants, representing the vast majority of the preservice teacher participants.

While the preservice teachers had not yet begun any field experiences, I did find that some of the participants had either leadership or educational experiences that could have accounted for some of their professional language development or pedagogical knowledge construction. For example, Harper voiced that she served as an orientation leader during the
previous summer; Cate was currently serving as a Bible study teacher; Charlotte claimed to work with a teacher at a local middle school; Ava served as a tutor at the university learning center.

**Subjectivity Statement**

In order to expose any unintentional biases that may impact this study, I have provided the following personal information for the reader: I am a white woman in my late twenties who is currently completing a doctoral degree in curriculum and instruction with a focus in literacy. I was motivated to enroll in this program with hopes that I would learn more about how I can become an agent of change in what I believe to be a struggling educational system. My experience in the field of education led me to believe that a great majority of American students are being underserved by the public education system, mainly as a result of the constrictions of standardized testing. I was also motivated by the belief that beginning teachers are significantly affected by the pressures of standardized testing, as well as a lack of required support; these factors are detrimental to their careers and often push them to exit the field.

My research interests include preservice teacher preparation and mentoring, social learning and technology. My interests in reading comprehension may have affected this study because I may have unknowingly exemplified judgment of student comprehension through the examination of their writing. Furthermore, my interests in technology may impact this study because I might have unknowingly showed bias regarding the assignment when interacting with the student participants during class visits.
Chapter Summary

In summation, the purpose of this qualitative case study was to explore how English language arts and social studies preservice teachers used an online space for a dialogic learning experience. A qualitative approach was employed in order to observe participants in their classroom setting; this approach enabled me to gain insight into their learning developments. Because the dialogic learning log assignment is individual to the students in this particular course, the application of a case study approach was fitting. Multiple forms of data were gathered to ensure validity, and the limitations of the study and potential researcher bias have been acknowledged.
CHAPTER FOUR: FINDINGS

Introduction and Framework for Analysis

The purpose of this qualitative case study was to explore how English language arts and social studies preservice teachers used an online space for a dialogic learning experience. I examined the dialogic learning logs of nine preservice teacher pairs; three of the dialogic learning partnerships served as focal cases. While conducting the data analysis, I explored how the partnerships enabled students to experiment with discipline-specific language presented to them through assigned course readings. Close analysis of the dialogic learning log transcripts also allowed me to explore how the partnerships facilitated the construction of pedagogical knowledge and beliefs. Finally, analysis of the dialogic learning log transcripts revealed that the online, asynchronous student discussions enabled the participants to develop reflective practices, envision themselves as educators, and engage in supportive peer relationships, these findings are presented as themes.

The main unit of analysis (Krippendorf, 2013) for this case study was each dialogic learning log; nine dialogic learning logs were composed by the student pairs in Google documents available online. Additional units of analysis enabling triangulation were primary course documents such as the course syllabus, dialogic learning log directions, assignment rubrics, and course meeting minutes; these items were accessed online via the course website. Preservice teacher mid-semester and summative reflections also served as key units of analysis. While each unit of analysis examined was in digital form, I also worked closely with the professor of the course. These face-to-face interactions enabled me to clarify any
questions I had about the dialogic learning log process as it unfolded in this particular semester. Because the vast majority of my data was in digital text form, content analysis (Krippendorf, 2013) served as a helpful data analysis procedure. A summative content analysis (Hsieh & Shannon, 2005) was performed when identifying instances of professional language use in dialogic learning log transcripts, and a conventional content analysis (Hsieh & Shannon, 2005) was used when identifying instances of reflective practices, teacher selves, and supportive practices.

Data analysis began with the reading of each dialogic learning log. The initial reading of the logs did not include transcription; I simply wanted to read the logs to get a feel for each preservice teacher pair’s dialogue style. After this initial reading, the summative content analysis process began when I re-read each dialogic learning log in comparison to the assigned weekly readings; I checked each entry for key vocabulary that was presented from the readings. It is important to note that I read the chapters for week one (Kirby & Crovitz, Chapters 3-4; Duke & Sanchez, Ch. 1 & 9) and then read the first entry for each of the nine dialogic learning logs. While the course texts provided examples of professional language as they may occur in the preservice teachers’ online discussions, the researcher also coded instances of professional language displayed throughout the dialogic learning log transcripts. These codes of professional language use derived from the dialogic learning log transcripts had been validated by an expert in the field. Once the initial entries were coded, I proceeded to the following weeks.
Upon completion of the summative content analysis phase, I began the conventional content analysis phase of data analysis focusing on the themes of reflection and refraction and envisioning one’s self as a teacher. Specifically, I re-read each dialogic learning log and highlighted examples of reflection and refraction and self-identification as either a student or teacher; both of these themes presented themselves initially in the pilot study. Examples of reflection occurred when students reflected upon their past educational experiences, their participation in the writing project with middle-school students, or their course assigned readings in a thoughtful, contemplative manner. Examples of refraction occurred when students extended their reflective thoughts by suggesting a change in ideologies or practices as a result of the reflective process. A refraction, as defined by Pope (1999) involves the challenging of the initial reflection, enabling a new view or belief. Preservice teachers exemplified refractions in multiple ways: pedagogical beliefs and/or practices may have changed due to knowledge gained through course readings; pedagogical beliefs and/or practices may have changed through working with student partners; pedagogical beliefs and/or practices may have changed through reflections on past educational experiences.

The researcher determined the preservice teachers viewed themselves as students if they made comments such as, “Instead of just coming up with a writing experience for your students to complete to be able to say you did, teachers should think about these things so that their students will get the most benefit out of their time and work” [Dialogic Learning Log Transcript Ward & Cate, 2014]. In this example, the preservice teacher distances herself from the classroom and makes suggestions for teachers, situating herself as a university
student. Conversely, the researcher determined that preservice teachers envisioned themselves as teachers when they made comments such as, “There are so many things we have to know as teachers about our students as writers to give effective responses” [Dialogic Learning Log Transcript, Conrad & Charlotte, 2014]. In this example, the preservice teacher explicitly refers to herself as a teacher and refers to her future students possessively; she acknowledges that she is a professional.

Close reading and analysis of the nine dialogic learning logs also resulted in the emergence of a new theme: support. Across the dialogic learning logs, it became evident that the dialogic partnerships were facilitating supportive relationships amongst the partners. These supportive relationships were more pronounced in some transcripts more so than others, but this finding became significant nonetheless. Therefore, a conventional content analysis of each dialogic learning log was performed in which examples of peer support were highlighted.

The data are presented in the order of which the analysis occurred. The within-case analysis of the three focal cases is offered with an explanation of how each case exemplified professional language development, reflection and refraction, envisioning one’s self as a teacher, and support. Following the within-case analysis is an analysis of the four themes as they occurred across the cases. Finally, a summation of the chapter will also be presented.

**Within-Case Analysis**

This section details my analysis of the three focal cases. Initially, I performed data analysis on each of the nine preservice teacher pairs. I then chose three focal cases because
they each were instrumental in demonstrating similarities with two other cases while highlighting the themes in unique ways. In this nature, the nine instrumental cases were clustered into groups of threes based on how the themes were portrayed through their conversations. Each focal case is presented individually, and the themes are explicated as they emerged throughout the data.

**Wells and Harper.** Wells is a white male undergraduate preservice teacher aspiring to teach middle grades English language arts and social studies. His writing in the dialogic learning log came across as formal and professional; whenever he was speaking directly to his partner, Wells would italicize his font and use a formal voice similar to a question that could be found at the end of a book chapter as a reading assessment. His questioning seemed more sterile and prompt-like than light and conversational. However, Wells was at times very friendly and supportive of his dialogic learning log partner, Harper. Throughout middle and high school, Wells wrote for a local newspaper. This information led me to infer that while he had no prior teaching experience, Wells’ writing strengths could help him when working with his peers and future students in writing instruction. Certainly, Wells’ dialogue portrayed him as the stronger of the two preservice teachers; Wells drove the majority of the discussions, while Harper preferred to follow and respond.

Harper is a Hispanic female undergraduate preservice teacher aspiring to teach middle grades English language arts and social studies. Her writing in the dialogic learning log was fluid and occurred on a more personal level. Harper remarked that she had previously worked with students as an orientation leader; during this experience, she
observed students demonstrate apprehension toward writing. Analysis across Wells and Harper’s dialogic learning log revealed that Harper largely wrote her discussions to help further comprehend the material presented in the course assigned readings. Specifically, Harper’s exchanges detailed a great deal of summarization which then lead to a reflection. In one entry, Harper summarized Kirby and Crovitz’s (2012) four steps to revision, explaining the process in depth for Wells. Once Harper grasped a firm understanding of the concept, she then reflected on how she and her peers modeled this process of revision during a course meeting. As a result of this connection, she then reflected on how this process could benefit her future students.

Wells and Harper’s dialogic learning log began with a professional voice. Their conversations were predominately about material presented from the course assigned readings. A pattern of questioning and answering that was in italicized print contributed to the scholarly feel of the initial dialogic learning log discussions from Wells and Harper. The pair did not challenge one another’s opinions; rather, they pleasantly agreed with one another and occasionally offered alternative perspectives. The final two interchanges between Wells and Harper were written in a more friendly tone rather than a professional voice. Harper sought support and vented her frustrations about working with a struggling middle school student in the course writing project, and Wells obliged by offering supportive encouragement, echoing that at times, he became discouraged while working with his middle school partner, too. In fact, the dialogic partnership between Wells and Harper largely contributed to revealing the theme of support across all of the dialogic partnerships.
Professional language development. In their initial dialogic learning log entries, Harper exhibited two instances of professional language use, while Wells utilized professional vocabulary four times; these numbers served as a baseline comparison for my analysis of each dialogic learning log entry.

Wells’ highest demonstration of professional language use occurred in his final post, entry nine. In this entry, I counted ten instances of discipline specific vocabulary. When explaining how a “word shake” activity (Kirby & Crovitz, 2012) enabled students to write in more creative styles as opposed to a five-paragraph essay format, Wells wrote,

It gives students freedom in how they structure their writing (free verse, couplets, ABCB, etc.) as well as their subject matter. Sitting beside you and [your writing project partner], I noticed that she was not forming coherent clauses very well...but I admire that she was not restricting herself to a rigid, standard sentence structure like many students do. [My partner], on the other hand, had no problem identifying verbs and nouns and adjectives. [Dialogic Learning Log Transcript, 2014]

In this example from his dialogic learning log conversation, Wells exhibits successful command of discipline-specific vocabulary. Wells’ final post portrayed him as a knowledgeable teacher; he skillfully discussed writing assignments and how they can help students learn to structure different styles of writing. Interestingly, Wells’ lowest demonstrations of professional language use occurred in posts six and eight, which also occurred as the end of the semester approached. In his sixth entry in the dialogic learning log,
Wells responded to Harper, rather than initiating the conversation as he typically did; his response was short and did not contribute to the discussion in a rich manner. In his eighth entry, Wells also waited to respond to Harper rather than lead the conversation. In this response, Wells offered a great deal of support to Harper as she was vocalizing her frustrations toward her writing partner’s apathy. Furthermore, Wells’ eighth entry was highly reflective on his past experiences as a student and offered a thoughtful refraction of the text. Allowing Harper to get a clearer sense of his educational past, he wrote:

> When I was in middle and high school I wrote a ton, because I not only wrote for school assignments, I also wrote 3-4 articles per week for the local newspaper...most of the time I never even read my articles when they were published in the newspaper. It was quite ironic; I was the main sports correspondent yet I probably read the paper less frequently than anyone in town. [Dialogic Learning Log Transcript, 2014]

This reflection of his past writing experiences drove home Wells’ refraction of pedagogical strategies aiding in motivating students to relate their writing back to everyday objects as they were suggested by Kirby and Crovitz (2012) when he wrote,

> I think we can take this even further and say we should challenge our students to relate their writing to practical everyday application. This would likely help motivate them in their writing, because they would see it as something that is relevant to their lives outside of school, rather than an
assignment they’re doing just to get a grade. [Dialogic Learning Log Transcript, 2014]

As evidenced, Wells was highly introspective in his dialogic learning log conversations.

As a result of his dialogic partnership with Harper, I determined that Wells ultimately increased his understanding of professional language. His final post in the dialogic learning log portrayed skilled use of discipline specific vocabulary in which he reflected on how “the five-paragraph essay and standardized systems of grading have drained our students of their creativity” [Dialogic Learning Log Transcript, 2014] and how his writing project partner was capable of “identifying verbs and nouns and adjectives” and “properly using semicolons, commas, and periods” [Dialogic Learning Log Transcript, 2014]. Furthermore, Wells’ final entry also revealed an increase in professional language from his baseline of four instances of professional language.

Harper’s highest demonstration of professional language occurred in her fourth entry, just prior to the mid-semester point in the course. In this discussion, Harper experimented with discipline-specific language such as “in-process revision” and “formative assessment”; she exhibited a total of 13 instances of professional language use. However, a great deal of this conversation involved the summarization of the course reading prior to Harper’s reflecting upon it. This post largely exemplified Harper’s writing to understand, rather than a thoughtful discussion of pedagogy. Harper’s asynchronous discussions revealed varying utterances of professional language use; at both the mid-point and final post, she only exemplified one utterance of discipline-specific vocabulary. Harper’s mid-semester entry was
highly reflective and included introspective remarks, while her final entry revealed her to be discouraged as a result of her work with a student from the class writing project. In her final entry, Harper exhibited an obvious lack of professional vocabulary; I believe this resulted from her conversation encompassing a more friendly tone in which she sought support and comfort from a friend, rather than a professional discussion with a colleague.

I ultimately concluded that while Harper exhibited successful attempts of experimentation with new professional language as it was presented to her through course assigned readings based on her tallied utterances of professional language, the dialogic learning log partnership did not facilitate a large growth in her professional language development. While the dialogic learning log discussions certainly made an impact on Harper, they did so by enabling her to develop a comprehension of the discipline-specific vocabulary as it occurred in the course readings, rather than permit the skillful mastery of professional language that might enable her to speak on a more professional level in the field. In this sense, Harper would certainly be able to follow along in a pedagogical discussion with other teachers; however, she may not feel comfortable contributing to the conversation.

In summation, as a result of their dialogic partnership, Wells exhibited growth in his professional language development, while Harper did not. Through online, private and controlled, asynchronous discussion, Wells was able to develop a critical lens for pedagogy while increasing his knowledge of professional language. Conversely, Harper utilized online, private and controlled, asynchronous discussion as a vehicle for the further comprehension of discipline-specific vocabulary as it was presented to her through assigned course texts.
**Reflection and refraction.** Wells and Harper’s dialogic learning log portrayed the preservice teachers to be highly reflective of their work throughout their discussions. Each entry of their asynchronous discussion contained reflective thought processes, and on multiple occasions, Wells and Harper extended reflections by exhibiting refractions as a result of their introspective process. Specifically, I observed that in their early conversations, Wells and Harper were comfortable engaging in reflective discussions about pedagogy. As the semester progressed and their dialogic relationship strengthened, Wells and Harper began to exhibit increased refractions in their discussions.

Wells’ first dialogic learning log post exhibited his ability to reflect upon course readings and activities and how he would utilize them in his future classroom. It was evident that he found the dialogic learning log to be a suitable space for examining his professional beliefs and practices. As their conversations progressed, so did Wells’ reflective self. At the mid-semester point, Wells began extending his reflections and displayed the ability to refract as a result of thoughtful consideration of pedagogy. Specifically, Wells proposed a change to a revision process when he suggested his future students might consider using Google documents for sharing writing with him. He wrote in regards to “in-process revision” (Kirby & Crovitz, 2012),

> Other than that, the idea of having students write in pen, or even a Google Drive document, is a terrifically simple and transparent way for teachers looking at a student’s writing process as words are making their way from the mind to the page. [Dialogic Learning Log Transcript, 2014]
Furthermore, as a result of reflecting on his past negative experiences with portfolios as a student, Wells proposed a way to change the use of portfolios in his classroom by implementing a reflective component that would enable his students to feel more connected to their growth in his class. Wells also changed his opinions about a controversial novel and its use in the classroom as a result of his conversation with Harper; he wrote,

That’s funny that you mention Holden. I recently read that book last year, so I had no connection with him as an adolescent. I recently read that *Catcher in the Rye* was a great book for middle schoolers, and I was shocked. I guess because of the profanity in the book, I somehow did not think of it potentially being a book I might teach seventh or eighth grades, but now I understand how Holden certainly does connect to a lot of adolescents trying to discover who they are and what they want in life.

[Dialogic Learning Log Transcript, 2014]

Finally, Wells demonstrated multiple instances in which his pedagogical beliefs were refracted as a result of the course assigned readings; in turn, he sought to facilitate a refraction in his writing project partner. Wells evidenced this attempt when he wrote,

I, Wells, found it kind of sad to hear my WP partner...tell me that his favorite form of writing is the argumentative essay. I understand that this is because he has not been exposed to or had much experience with writing other forms, and on the day I shared my own writing with him I made sure to show him fiction I have written, as well as poems and essays
that I have written under my own volition, which were not structured according to any certain requirements or parameters. [Summative Reflection, 2014]

Thus, Wells demonstrated that the dialogic learning log process provided itself to be a beneficial space for reflecting and refracting upon pedagogical beliefs and concepts.

Harper’s initial dialogic learning log entry also displayed her ability to reflect upon pedagogy; her first reflection detailed a thoughtful consideration of how pedagogical choices influenced student behaviors in the classroom as a result of a personal experience as an orientation leader. It was equally evident that Harper found the dialogic learning log to be a suitable space for examining her professional beliefs and practices as she demonstrated the ability to reflect upon these course readings and activities as well. In one discussion, Harper offered a thoughtful reflection on how her work as an orientation leader enabled her to work with small student groups requiring them to write something about themselves to share with the whole group,

Before I asked my students to share, I shared first and that opened the floor for others to share after me. I think many more students were willing to share after they heard me share my own writing. If I did not read my own writing to students in my classroom I think they would be afraid that they were not grasping the prompt correctly. They might not be willing to express themselves as much as they want because they believe
they might be exposing too much information or feeling as they are not writing enough. [Dialogic Learning Log Transcript, 2014]

Harper’s reflective self continued to develop as her conversations with Wells continued; she also began extending her reflections at the mid-semester point by displaying the ability to refract as a result of her thoughtful considerations of pedagogy. Specifically, Harper demonstrated a refraction by proposing an alternate method of revision at the mid-semester point; she reflected upon how her past writing in a high-stakes environment without feedback contributed to her self-conscious attitudes towards writing. To ensure these attitudes do not arise in her future students, she explained that she plans to assign their writing in a low-stakes environment and provide feedback on their work. Harper also demonstrated refractions as a result of reflecting upon assigned course readings and her work with her writing project student; in one instance, she explained that she negatively judged her student partner as being apathetic when they worked together. As a result of reading about student apathy as it presents itself in the classroom, Harper realized that rather than place blame upon her student partner, she should try to understand the causes of her apathy; she became a more caring teacher as a result of this reflective process.

To conclude, both Wells and Harper displayed highly reflective selves in their asynchronous conversations in the dialogic learning log. Wells and Harper embodied reflective practitioners capable of refracting when they explained in their summative reflection that they “understand it is our responsibility to tailor the activities to the needs and
passions of our students in order to motivate them to produce their best work” [Summative Reflection, 2014].

*Teacher selves.* When engaging in discussions through the dialogic learning log, Wells and Harper repeatedly reflected on pedagogical strategies presented in the course assigned readings and activities they engaged in during their course meetings; these conversations resulted in thoughtful consideration of their future students.

Throughout the dialogic learning log, it became evident that Wells not only viewed himself as a preservice teacher, but that he was also confident in this self image. In his initial entry in the log, Wells described how he would teach writing to his future students and remarked that, “I, as the teacher, should always write when my students write, and if I expect them to be open and honest with me in their writing then I should be open and read my writing to them” [Dialogic Learning Log Entry, 2014]. In this excerpt, Wells clearly situates himself as an educator and positions his classroom as being one that will be student-centered. Wells continued to engage in thoughtful discussions about how his students would prefer to learn throughout the course of the semester. In another instance, he discussed the importance of clarifying the motivations for writing to his students: “it will be my job to reveal the importance of each writing assignment to my students, including why they are writing about a specific topic, how it will benefit them, and why revision will help them.” [Dialogic Learning Log Transcript, 2014] Finally, in his final entry, Wells embodied the character of a teacher when he described his interactions with his writing project partner:
The one time he really had a creative spurt was the day we wrote concrete poems. I suggested he write about a soccer ball, since he loves soccer so much. His face lit up at the suggestion, and he began to write feverishly...he proudly read it to me when he finished. I told him he should take it home to his parents and he did. [Dialogic Learning Log Transcript, 2014]

In this example, Wells described an exchange that could potentially occur in any middle school classroom; he engaged with his writing project partner in a supportive way by guiding him to write about a topic he enjoys. Furthermore, Wells portrayed himself as an educator who is proud of his student when he encouraged his writing project partner to share his work with his parents.

Harper certainly realized that she was on the path to becoming a teacher; she frequently referred to students as “hers” and reflected on how pedagogy would occur in “her classroom.” However, on two occasions, Harper made suggestions to teachers working in the field, rather than explain how she would make pedagogical choices from these suggestions. In one instance, Harper wrote that grading practices focusing solely on conventions “could also lead to teachers becoming biased when grading” [Dialogic Learning Log Transcript, 2014], and in another example, she wrote “I do not think teachers should throw away large projects like portfolios” [Dialogic Learning Log Transcript, 2014]. Harper’s hesitation to refer to students confidently as “hers”, combined with her discussion of how she struggled to help her writing project partner, led me to believe that she still viewed herself as a student, rather than a preservice teacher.
In her second dialogic learning log entry, Harper asked Wells a question about writing instruction: “How can this be problematic for us as first year teachers, with pressure to do things ‘by the book’ so our students will have high scores on writing assessments?” [Dialogic Learning Log Transcript, 2014] In this example, Harper acknowledged herself as a preservice teacher and reflected on how to help her future students. Although she also made comments such as “As teachers we work as editors with our students” [Dialogic Learning Log Transcript, 2014], portraying herself as a middle grades teacher, Harper made comments distancing herself from the classroom. Along with explaining that she would eventually graduate and become a teacher, Harper also regressed in her fifth dialogic learning log entry in her recommendation that she did “not think teachers should throw away large projects like portfolios” [Dialogic Learning Log Transcript, 2014]. In this example, Harper situates herself as a student explaining what she did not enjoy about a past educational experience; she could have situated herself as a teacher by telling Wells she would not discard her students’ portfolios. Harper’s final dialogic learning log entry depicted a student who was discouraged by her perceived lack of success with her writing project partner. She explained, “I wish I had a great success story to share about my partnership with Mandy, but honestly I have not noticed any boost in her confidence with words this semester” [Dialogic Learning Log Transcript, 2014]. This attitude, in conjunction with the fact that I did not observe Harper acknowledge her role as a teacher, led me to believe that she did not feel comfortable shedding the role of a student as of yet.
Upon conclusion of my data analysis, I determined that Wells confidently accepted his role as a teacher and envisioned himself as such. Conversely, Harper did not reveal herself to be confident in her role as an educator upon completion of the dialogic learning log, resulting in my determination that she still envisioned herself as a student.

**Support.** It is important to note that the theme of support initially revealed itself in my analysis of Wells and Harper’s dialogic partnership. Discussions between Wells and Harper revealed that Wells provided a great deal of support, encouragement, and general positivity towards Harper. While Harper was not as supportive as Wells, she certainly adopted this behavior throughout the dialogic learning log process. Furthermore, later entries in their dialogic learning log discussions, it became evident that Harper utilized the online space as a way to reach out for support when she became discouraged by her writing project student’s apathy.

In his first dialogic learning log entry, Wells adopted a supportive, encouraging tone when he affirmed Harper’s work with students over the summer:

Nice job using the notecards with your orientation groups this summer! I remember how intimidating and overwhelming orientation can be for freshmen, but I’m glad you were able to relieve some tension by already knowing to share your thoughts before expecting anything out of others.

[Dialogic Learning Log Transcript, 2014]

In this initial post, Wells not only established a tone of support and comfort in their discussions, but he also offered Harper praise. This form of encouragement is beneficial
when collaborating with peers in the workplace. Another time, Wells offered support to Harper through a solution: “We both came into the semester with fears about not being able to assess writing consistently, and this system provides us the ability to be confident” [Dialogic Learning Log Transcript, 2014]. Pointing out that the two were unified by their fears, and in turn, offering a solution further enabled Wells to offer support to Harper, situating them as collaborative partners. Finally, in their final discussions, Wells identified Harper’s discouragement with her writing project partner and attempted to ameliorate this situation by encouraging her efforts: “You’re doing a great job with Mandy and I see you out of the corner of my eye initiating positive conversation...Even if you haven’t made a discernible difference in her this semester, I’m sure you’ve impacted her positively” [Dialogic Learning Log Transcript, 2014]. Wells’ positive encouragement undoubtedly helped to reaffirm Harper’s efforts with her partner.

Perhaps as a result of Wells’ supportive tone, Harper first exemplified a supportive nature in her second dialogic learning log entry. In this instance, Harper applauded Wells’ use of the word “facilitate” in his response when she said “I really liked your use of the word ‘facilitate’ in your response” [Dialogic Learning Log Transcript, 2014] as an opening to her response. Although small, this friendly line of encouragement was Harper’s way of engaging in their friendly, collaborative discussion. Throughout the duration of the semester, Harper contributed to the supportive relationship of the partnership by offering help to Wells; “I think the Duke chapter that we were required to read this week can help you to answer this question” [Dialogic Learning Log Transcript, 2014]. However, at the end of the semester,
when Harper became increasingly discouraged by her perceived lack of success with her writing project partner, she utilized the dialogic learning log to seek support from her partner. The supportive tone established in their dialogic learning log early on enabled Harper to feel comfortable in voicing her weaknesses, “I found the activity in class today with our WP partners to be very difficult” [Dialogic Learning Log Transcript, 2014], and frustrations, “I wish I had a great success story to share about my partnership with Mandy” [Dialogic Learning Log Transcript, 2014]. Therefore, along with exemplifying a supportive tone in her dialogic learning log discussions, Harper also exemplified the need for support in her dialogue.

To conclude, both Wells and Harper demonstrated supportive dialogue and collaboration in their dialogic learning log conversations. Interestingly, Dr. Bishop reported that Wells and Harper were dating one another during the duration of the dialogic learning log, which could have contributed to the element of support presenting itself so prevalently in their discussions. Regardless, this finding supports the belief that dialogic learning log discussions are beneficial for the creation of supportive relationships amongst preservice teachers.

**Barrett and George.** Barrett is a white male undergraduate preservice teacher aspiring to teach middle grades English language arts and social studies. His writing in the dialogic learning log was succinct and honest; he provided a discussion of all assigned course reading and spoke his opinion without reservation. Barrett expressed that as a student, he typically preferred to work independently. Nonetheless, Barrett occasionally addressed his
partner directly, but for the most part he appeared to be writing to comprehend the material presented in the text. Over the course of the dialogic partnership, Barrett and George maintained a balanced conversation in which they alternated who began the conversation for each entry.

George is also a white male undergraduate preservice teacher aspiring to teach middle grades English language arts and social studies. His writing in the dialogic learning log was highly similar to Barrett’s; his discussion of pedagogical concepts was direct and clear, offering a critical eye whenever he deemed it appropriate. Like Barrett, George addressed his partner directly on occasion; however, their conversation read more sterile than familiar. At times, it came across as though George had a harder time realizing that the dialogic learning log was meant to be a discussion, rather than a critique of the weekly reading.

Barrett and George’s dialogic partnership began with an analytic tone. They mentioned key concepts and strategies presented in the assigned reading and provided a critical stance. In one critical remark, Barrett wrote, “As I read chapter 3, I noticed how the author had good intentions of acknowledging the importance of the classroom environment but sort of failed to give enough specific examples or ideas for accomplishing this” [Dialogic Learning Log Transcript, 2014]. In the initial dialogue, George attempted to engage in a professional discussion with Barrett. When Barrett explained that he would like to use music as an auditory aid for engaging students in writing activities, George cautioned, “If you are going to do it just has to be in authentic way that your kids can respect and take seriously. But that is true with anything.” [Dialogic Learning Log Transcript, 2014]
dialogue did not continue explicitly; however, on occasion, the partners would offer an agreement to one another. Upon conclusion of my analysis, I determined that Barrett and George matched well with one another academically, a factor which helped contribute to the balanced discussions throughout their dialogic learning log.

**Professional language development.** In their initial dialogic learning log entries, Barrett exhibited one instance of professional language use, while George utilized professional vocabulary three times; these numbers served as a baseline comparison for my analysis of the rest of their dialogic learning log conversations. It is important to note that while the ninth entry served as the last assigned by the professor, Barrett and George did continue with a tenth conversation about their unit plans for the course. I will refer to the ninth dialogic learning log entry as the final entry as the tenth entry did not encompass a significant amount of discussion.

Barrett’s highest demonstration of professional language use occurred in his final dialogic learning log entry. In this entry, I counted nine instances of discipline specific vocabulary. Barrett portrayed himself as a thoughtful preservice teacher who was considerate of students both academically and socially; he successfully defended student academic success as being related to external factors such as motivation, maturity, and socio-economic status. He wrote,

> Although I agree with Crovitz on the previous point, I believe he fails to mention a couple of important factors. Crovitz fails to look at the big picture and only focuses on the academic side of things. The author does
not take outside factors into consideration...one critical factor is the fact that public schools have to serve a much more realistic and diverse group of students...college students are more mature and are forced to take responsibility for their academic success unlike public school students.

[Dialogic Learning Log Transcript, 2014]

Barrett’s dialogue reflected overall growth as his conversations following his initial entry included professional language use above his baseline number. In his sixth dialogic learning log entry, Barrett exemplified six instances of professional language use; this discussion comprised a thoughtful critique of a model for assessment. He wrote, “The D.A.N.C.E. method will be something I would likely consider after I have taught for at least a year or two. I only say this because I will probably still be learning the ropes during my first couple years and would likely not want to take on long projects yet” [Dialogic Learning Log Transcript, 2014]. Barrett thoughtfully questioned how this particular assessment method may need to be modified for students with diverse learning needs when he speculated, “I do wonder how this method could be applied to ESL students though. Would it simply require more scaffolding or would the standards have to be lowered to accommodate them?” [Dialogic Learning Transcript, 2014] In this example, Barrett positions himself as a novice teacher who possesses a general understanding of discipline-specific vocabulary; I believe he could certainly follow a professional discussion in the field.

Overall, my analysis led me to believe that as a result of his dialogic partnership with George, Barrett achieved an overall growth in his understanding of professional language.
Barrett displayed successful command of discipline-specific vocabulary with utterances about “creative response,” “guiding instruction for improvement,” “curriculum requirements,” and “diverse group of students,” among others [Dialogic Learning Log Transcript, 2014]. His final post in the dialogic learning log portrayed skillful use of discipline-specific vocabulary in which he reflected on how the “common five paragraph paper will not be too useful” and “the importance of story” [Dialogic Learning Log Transcript, 2014] when teaching students to write about life events, films, or literature. Furthermore, Barrett’s dialogic learning log conversations remained above the baseline level of professional language use as the semester progressed.

George’s highest demonstration of professional language occurred in his second entry of the dialogic learning log. In this discussion, George engaged in a conversation about “good pre-writing habits,” “writing prompts,” and pedagogical strategies such as “heuristics, clusters, webs, and storyboards” [Dialogic Learning Transcript, 2014]. George relied heavily on the text to comprehend how these concepts play out in pedagogy by infusing much of his entry with direct quotations. However, George purposefully selected this vocabulary and engaged in a novice discussion with his partner, Barrett. In this manner, George sought to build to his professional vocabulary base by experimenting with these new terms. Unfortunately, George did not exhibit growth in professional language use after this entry in the dialogic learning log. In fact, after this professional language-dense entry, George then engaged in a conversation that only evidenced two instances of professional language. In his final entry of the dialogic learning log, George displayed four examples of discipline-specific
vocabulary. Terminology such as “style” and “conventions” were used when he reflected upon his past schooling experiences in which he remembered learning to write a “five paragraph sort of essay” that he later described as a “formulaic approach to writing essays” [Dialogic Learning Log Transcript, 2014].

I ultimately concluded that while George’s professional language development certainly did not suffer as a result of his participation in the dialogic learning partnership, he also did not exhibit consistent practice experimenting with discipline-specific language presented to him through the course and its assigned readings. The dialogic learning logs served as a space for George to further develop his comprehension of discipline-specific vocabulary as it occurred in the course readings; however, this development did not occur in a consistent, steady progression. Therefore, while I believe George could listen and comprehend professional conversations in the field, he may have difficulty contributing in a successful discussion of pedagogy.

In summation, as a result of their dialogic partnership, Barrett achieved an overall growth in his understanding of professional language, while George did not. Through online, private and controlled, asynchronous discussion, Barrett was able to experiment with discipline-specific vocabulary and expand his professional language; this language allowed him to engage in more thoughtful discussions about pedagogy and his future students. While George made connections to his future classroom and pedagogical beliefs through his conversations in the dialogic learning log, he did not demonstrate increased development of professional language in his discussions.
**Reflection and refraction.** Barrett and George’s dialogic learning log provided an interesting look into how reflection and refraction about pedagogy occurs through asynchronous discussions about course assigned readings. Both Barrett and George exhibited the ability to reflect upon the content presented by the text and how it may impact their future students or their pedagogical choices; however, Barrett and George also exemplified high instances of what I coined, “writing to learn” in their conversations. Throughout their conversations, Barrett and George frequently provided summaries of key strategies from the text in which they grappled with how they may be used to facilitate student learning. I noticed that these summations occurred prior to Barrett or George being able to adopt a reflective stance, resulting in the assumption that both Barrett and George found writing about the material to be a vehicle for the strengthening of their pedagogical comprehension. Once comprehension occurred, they were able to reflect, and in some cases, refract.

For example, in his initial entry in the dialogic learning log, Barrett demonstrated his ability to offer a reflective stance about pedagogy. He wrote,

> I found something I think could be beneficial in my classroom and that is to have music playing in my classroom. I would experiment with no music, some music and even the type of music that best helps my students engage in writing. [Dialogic Learning Log Transcript, 2014]

This reflection of how he would create an amenable class environment occurred as a result of Barrett’s assertion that Kirby and Crovitz (2012) stressed the importance of the classroom environment, yet in his opinion failed to provide sufficient concrete examples of how to
achieve this goal. Later on in his initial entry, Barrett exhibited a refraction of pedagogy when he reflected upon the value of journaling for students. Barrett asserted that in his classroom, he planned on allowing students to write in their journals only on Fridays to ensure that he would have sufficient time over the weekend to provide feedback. In this example, Barrett thoughtfully reflected on the amount of writing students would compose in their journals, as well as the amount of time he would need to invest in providing helpful, constructive feedback. As a result, his pedagogical decision was to select one day of the week for student journaling, rather than allow students to write throughout the week or on their own time. In this instance, Barrett thoughtfully reflected upon the text suggestion that journaling occur frequently in the classroom and envisioned that such a recommendation did not fit the view of his future classroom; he refracted by making his own pedagogical choice for the implementation of journals as they would best serve his students in particular.

Throughout the duration of the semester, Barrett continued to compose reflective discussions in the dialogic learning log that frequently included refractions as a result of his thoughtful consideration of the assigned reading materials and his past educational experiences. In his sixth dialogic learning log entry Barrett was particularly reflective regarding the assessment of student writing:

I believe students do their best and most honest work when they know that they will not be held accountable for their writing...Including students in the creation of the grading rubrics is something I had not considered before but...it does seem like it could be beneficial...I also think that we as
teachers will know about our students’ capabilities and should also consider improvement as an important factor in grading. [Dialogic Learning Log Transcript, 2014]

In this excerpt, Barrett displays himself as a reflective practitioner who considers student motivations and beliefs in his pedagogical planning. Furthermore, Barrett exemplifies two refractions in this conversation when he explains that the course reading led him to consider incorporating students into developing assignment rubrics, as well as the incorporation of student improvement as a category for student writing assessments. In this discussion, Barrett portrayed himself as an educator who possessed an understanding of professional language and pedagogical knowledge.

In entries five and seven of his dialogic learning log, Barrett exemplified high volumes of summarization from his reading; I concluded that in these posts, Barrett was using the dialogic learning log as a means to develop further comprehension of the pedagogical information presented by the assigned readings. In his fifth entry, Barrett explained his unfamiliarity with portfolios: “This is something that I am not too familiar with personally as I did not have to complete a portfolio when I attended public school” [Dialogic Learning Log Transcript, 2014]. Continuing on in his discussion, he provided a summarization of Writing Across the Curriculum’s (2000) discussion on portfolios and how they could be implemented at the classroom level. Barrett, in this instance, clearly exhibited a lack of comprehension; as a result, he wrote to his dialogic partner explaining what he learned from the text. Barrett followed the same pattern in his seventh dialogic learning log
entry in which he summarized Kirby and Crovitz’s (2012) recommendations for teaching students how to write about literature. In this discussion, Barrett grappled with the newfound understanding that he was responsible for teaching students to write in multiple styles in order to “help them adapt to life outside of school” [Dialogic Learning Log Transcript, 2014]. Thus, I determined that in situations when he attempted to construct pedagogical knowledge, Barrett relied on a “writing to learn” approach.

George also demonstrated his ability to offer a reflective stance on pedagogical texts in his first dialogic learning log response. Not only did he reflect on how “journals can be an effective way keeping track of student progress in their writing,” but he also reflected on how a past teacher “was a big proponent of these new age ideas about playing music during free writing time” [Dialogic Learning Log Transcript, 2014] and his general displeasure for this strategy; he deemed it to be forced and stressed the importance of being authentic when working with students. George’s sixth dialogic learning log entry displayed him to be highly reflective; in this post, he displayed four instances of thoughtful reflections, two of which extended to refractions. In one example of refraction, George wrote,

Is this not contradictory to their position on not grading drafts? While I not fully disagree with their point here it does seem to be a conflicting message, should we grade the pre-writing or not? I guess what they are ultimately trying to say is that drafts should not be graded for quality but credit should be given to a student for putting forth a great deal of effort in creating their final draft. [Dialogic Learning Log Transcript, 2014]
Evidencing another refraction George explained, “including the students in the creation of the grading rubrics is something I had not considered before but after reading the chapter, it does seem like it could be beneficial for them to make to feel included” [Dialogic Learning Log Transcript, 2014]. When discussing the inclusion of students in the grading process, George reflected that it was important to remember that “just because you are the teacher does not mean that your way of explaining some things is the only way to do it” [Dialogic Learning Log Transcript, 2014]. He went on to challenge Kirby and Crovitz (2012) in his assertion that while the authors suggested including grades for student draft processes, he did not agree with this stance and found their message to be conflicting given that at one point, Kirby and Crovitz (2012) stressed the importance of not assessing pre-writing activities. Ultimately, as a result of his reflective process, George came to the conclusion that “drafts should not be graded for quality but credit should be given to a student for putting forth a great deal of effort in creating their final draft” [Dialogic Learning Log Transcript, 2014]. In this instance, George portrayed a preservice teacher engaging in a thoughtful pedagogical discussion.

Interestingly, George’s sixth dialogic learning log discussion also included an example of “writing to learn.” In this entry, George summarized a pedagogical strategy for the assessment of student projects that occurred over a longer stretch of time without grading each component individually. George provided a detailed description of the assessment strategy without offering a reflection of its value or whether or not he planned to implement
it in his future classroom. Perhaps because he had yet to gain any experience with grading student-writing projects, George needed to rely on writing to learn in this case.

To conclude, both Barrett and George displayed highly reflective practices in their asynchronous discussions in the dialogic learning log. Both Barrett and George portrayed themselves as reflective preservice teachers capable of constructing pedagogical knowledge as a result of the thoughtful consideration of pedagogical texts. However, Barrett and George also demonstrated that when they were unfamiliar with certain pedagogical strategies and had not experienced them in their personal schooling, it was necessary for them to summarize the strategies to further construct their pedagogical knowledge; in this case, Barrett and George were writing to learn.

**Teacher selves.** When engaging in discussions through their dialogic learning log, Barrett and George continually presented pedagogical strategies that they learned through course readings and activities. The conversations that occurred through Barrett and George’s dialogic partnership enabled Barrett to thoughtfully consider his future students and his classroom environment; on the other hand, George appeared hesitant to assume his role as a future educator.

From the inception of his dialogue in the dialogic learning log, Barrett displayed himself as an aspiring educator that would soon become a professional in the field. Understanding that the goal of his work in the course was to prepare for successful writing instruction, his first entry included his pedagogical choice of implementing music in “my classroom” as a means for engaging “my students”; referring to the classroom and students in
a possessive way signifies that Barrett envisioned himself as an educator when he wrote
“still, I found something I think could be beneficial in my classroom and that is to have
music playing in my classroom. I would experiment with no music, some music and even the
type of music that best helps my students engage in writing” [Dialogic Learning Log
Transcript, 2014]. Barrett confidently continued to envision himself as an educator
throughout his dialogic learning log discussions; he referred to his future students and the
need to help engage them in the learning process across the majority of his conversations,
and he thoughtfully considered his pedagogical choices as an educator.

In his final conversation, Barrett engaged in a thoughtful, reflective discussion
challenging Kirby and Crovitz’s (2012) assertion that public schools fail to prepare students
for college writing. He maintained that the authors were exaggerating and provided a
refraction of the text by detailing external factors that may contribute to why students may
develop their writing skills more so at the university level than at the high school level. In
this instance, Barrett embodied an educator who was not only concerned about student
academic performance, but also social factors and how they impact student performance. He
explained, “public schools have to serve a much more realistic and diverse group of
students...college students are more mature and are forced to take responsibility for their
academic success unlike public school students.” [Dialogic Learning Log Transcript, 2014] I
ultimately determined that Barrett was a confident preservice teacher who had few
hesitations envisioning himself as an educator.
George did not appear to envision himself as a future educator in his initial dialogic learning log entry, an observation that continued throughout the semester. Rather than adopt a reflective stance on how he might motivate students to write in his future classroom, George made suggestions to Barrett on how to improve his own pedagogy in his first dialogic learning log entry. George wrote, “I have never really felt like playing music in class really did much for me...If you are going to do it it just has to be in authentic way that your kids can respect and take seriously” [Dialogic Learning Log Transcript, 2014]. Furthermore, although he reflected upon the potential value of journals in the classroom, George discussed students in a general manner without acknowledging that he would one day have students of his own. Although his second conversation in the dialogic learning log revealed George’s mention of “our students” [Dialogic Learning Log Transcript, 2014], later on in this discussion he referred to “the teacher” and “the student” generally, distancing himself from the role of an educator. Throughout the remainder of his conversations in the dialogic learning log, George continued to refer to students and teachers generally when he wrote comments like “students need to know and see what is expected of them or at least what they should be trying to attempt” and “the techniques mentioned are a great benefit to students” [Dialogic Learning Log Transcript, 2014]; this led me to the conclusion that he was not yet ready to envision himself as an educator. Therefore, the dialogic learning log did not serve as a facilitator for George to envision himself as an educator.
Support. While Barrett and George’s dialogic learning log conversations did not represent numerous examples of support, I observed complex elements of this theme throughout their work.

In his first dialogic learning log entry, George responded to Barrett’s initial post in which he explained he would like to use music as a tool for engaging students in the writing process. George cautioned Barrett on this pedagogical choice, warning him that he should take care to engage in this strategy authentically so his students would take him seriously. While George sought to support and aid Barrett in his professional planning, Barrett did not respond to George’s remark, and no further instances of support were observed in their dialogic learning log conversations except for Barrett’s brief affirmation of George’s remark that publishing is a powerful tool in the eighth entry of their dialogic learning log. It is possible that George’s initial attempt at support was read as critical to Barrett and thus, stifled any future supportive relationships from occurring.

Barrett remarked in his final reflection that although he was skeptical of engaging in an online asynchronous dialogue with George because he did not prefer working collaboratively with his peers, he actually took pleasure in the assignment and in interacting with his partner. In this example, Barrett wrote,

I was honestly not looking forward to this assignment for a couple of reasons. One, I really prefer not to work with others as I find it difficult to work with others...However, I have enjoyed reading my partner’s interpretation of the chapters...My partner during this process has been one
of the best persons I have worked with while at [school] and I hope I can continue to work with him on future projects. [Summative Reflection, 2014]

Barrett maintained he enjoyed reading George’s discussions and remarked, “my partner during this process has been one of the best persons I have worked with while at school and I hope I can continue to work with him on future projects.” [Final Reflection, 2014]

Therefore, I deduced that Barrett found the dialogic learning partnership to be beneficial to his development as a collaborative teacher. George did not echo Barrett’s sentiments in his summative reflection of the dialogic learning log; thus, he did not reveal that he found the dialogic learning partnership did not provide a particularly supportive professional relationship.

Ward and Cate. Ward is a white male undergraduate preservice teacher aspiring to teach middle grades English language arts and social studies. His writing in the dialogic learning log was obviously introspective; he reflected largely upon his past educational experiences to help develop his critical eye when discussing pedagogy as it was presented through course reading and activities. Ward’s tone was friendly and engaging toward his partner Cate; he greeted her prior to beginning his discussions and prompted her frequently throughout his conversations. A seemingly strong student, Ward was capable of using a critical eye in his attempts to discern what he determined to be the best instructional strategies for his future students.
Cate is a white female undergraduate preservice teacher aspiring to teach middle grades English language arts and social studies. Her writing in the dialogic learning log portrayed her as a highly reflective preservice teacher. Like her partner Ward, Cate also relied largely on her past educational experiences to guide her in her reflections about pedagogy. Through her discussions, Cate situated herself as being considerate of her future students; she vocalized her desire to project a caring presence in her future classroom when she wrote, “I want my students to know that they can trust me with whatever they write” [Dialogic Learning Log Transcript, 2014]. Cate served as a Bible study teacher and vocalized a close relationship with her mother, a teacher, which could have contributed to her understanding that students oftentimes respond favorably to caring teachers. Cate’s tone in her conversations was also friendly; she affirmed Ward’s sentiments at times and greeted him regularly. Clearly invested in her work as an aspiring teacher, Cate was also a strong student.

Overall, the dialogic partnership between Cate and Ward was a good match as the two preservice teachers appeared to be on a similar level academically. The dyad engaged in a supportive relationship as evidenced by their conversations; while they effectively grappled with pedagogy and portrayed strong professional discussions, Ward and Cate also engaged in dialogue representative of friendly colleagues. The dialogic partnership between Ward and Cate depicted a preservice duo that experimented with high volumes of professional language while reflecting upon pedagogy presented by course texts and activities. Ward and Cate’s dialogue was also largely demonstrative of support; however, both preservice teachers reflected hesitations toward envisioning themselves as educators.
**Professional language development.** In their initial dialogic learning log entries, Ward exhibited five instances of professional language use, while Cate utilized professional vocabulary nine times; these numbers served as a baseline comparison for my analysis.

Ward’s highest demonstration of professional language use occurred in his fifth dialogic learning log entry. In this entry, I counted 28 instances of discipline specific vocabulary use. Ward effectively engaged in a professional discussion about writing assessments; specifically, he engaged in a conversation about portfolios and how to best implement them in his future classroom. Ward explained, “Since the importance of portfolios is increasing, due mainly to the fact that Vermont and Kentucky have begun statewide portfolio assessment programs, teacher should incorporate the student’s voice and selections” [Dialogic Learning Log Transcript, 2014]. Furthermore, Ward discussed the notion of traditional assessment practices as being outdated largely as a result of overlooking student learning as it occurs over a longer span of time. Ward’s discussion in this entry of the dialogic learning log portrayed him to be a knowledgeable preservice teacher capable of engaging in thoughtful discussions about pedagogy. Although Ward did not exceed this amount of rich professional language use in his subsequent dialogic learning log entries, his instances of discipline-specific vocabulary remained well above his baseline use of professional language in his initial dialogic learning log entry. In his seventh dialogic learning log conversation, Ward demonstrated a skillful discussion about a myriad of pedagogical strategies. Specifically, Ward engaged in a conversation detailing the “stark difference between promoting an exchange and a transaction” when students respond to
literature, the differences of “free responses” and “guided responses,” and how to utilize writing instruction as a means for increasing student comprehension of “non traditional texts” [Dialogic Learning Log Transcript, 2014]. Thus, analysis of Ward’s dialogic learning log transcripts revealed that this online, private and controlled asynchronous discussion with Cate enabled him to construct pedagogical knowledge through the experimentation with discipline-specific vocabulary.

Cate’s highest demonstration of professional language occurred in her eighth entry, just prior to her final discussion in the course. In this conversation, Cate reflected on her past experiences as a student:

I felt like I had become a professional at writing a 5-paragraph essay...they are not practical for the real-world...after we introduce different types of essays to students, we have to help the get through the process of writing...I plan to use the writing groups like we have in Dr. Bishop’s class with my students. [Dialogic Learning Log Transcript, 2014]

As evidenced in this excerpt, Cate offered a critical stance towards more traditional forms of writing instruction. She explained the importance of exposing her students to multiple forms of writing, and even offered a pedagogical plan for implementation. Over the course of her dialogic learning log conversations with Ward, Cate maintained a steady increase of her instances of discipline-specific vocabulary. She continually expounded upon the notion that “writing is a process” in her fourth entry, discussing the importance of modeling the process for students and the critical role that revision played [Dialogic Learning Log Transcript,
In her final dialogic learning log entry, Cate exemplified a pivotal shift in her dialogue by completely adopting the voice of an educator. She wrote, “When they get to college, they are not prepared. This is partially due to the pressures of high-stakes testing...because of this, students are not prepared for the rigors of college writing” [Dialogic Learning Log Transcript, 2014]. In this excerpt, Cate skillfully used discipline-specific language to engage in a professional discussion. Cate went on to explain that students should be taught to “develop strategic thinking habits and flexibility as writers” so that they could be better prepared for life outside of the classroom. This discussion largely exemplified Cate’s ability to utilize professional language successfully as a result of her dialogic partnership with Ward.

In summation, as a result of pedagogical conversations in the dialogic learning log, both Ward and Cate exhibited growth in their professional language development. Through online, private and controlled, asynchronous discussion, Ward and Cate developed a critical stance about pedagogy while increasing their discipline-specific vocabulary awareness.

Reflection and refraction. Ward and Cate’s conversations in the dialogic learning log depicted highly reflective preservice teachers. In their dialogic learning log transcripts, Ward and Cate relied heavily on past educational experiences to aid them in thoughtful reflection of the pedagogy presented through course assigned readings and activities. Although Ward exemplified one example of refraction in his initial dialogic learning log entry discussing “split entry journals” (Kirby & Crovtiz, 2012) when he wrote, “I feel like this is a great idea for self-motivated students...I must say it does create an opportunity for the students to display their understand and application of the text...this could be a valuable tool for students
to keep up with plot changes, new characters, etc.” [Dialogic Learning Log Transcript, 2014]. I observed that the dyad’s instances of refraction progressed over the course of the semester.

In each of his dialogic learning log conversations Ward exhibited instances of reflective practice. I noticed that Ward frequently followed a pattern in his conversations of first, making connections between the concept presented by the assigned reading and his past schooling experiences, and then reflecting upon whether or not his experiences were beneficial to learning. For example, when engaging in a discussion of Kirby and Crovitz’s (2012) assertion that the classroom environment impacts student motivation in his first dialogic learning log entry, Ward reflected upon his participation in a university level course in which “the desks were orderly in rows much like a highly disciplinary classroom” [Dialogic Learning Log Transcript, 2014]; he ultimately revealed that he agreed with Kirby and Crovitz (2012) and voiced his discomfort in that particular classroom environment.

Midway through the semester in his fifth dialogic learning log entry, Ward engaged in a highly reflective discussion about portfolios. He maintained that his past educational experience with portfolios was not beneficial because he did not see the portfolio unless his teacher shared it at a parent conference or it was organized at the end of the year. He extended this reflection by suggesting a refraction of this pedagogical experience: “I hope that this experience can change where students are heavily involved in what goes into their academic folders and [are] constantly making changes so they can personally see the growth they have accomplished academically.” [Dialogic Learning Log Transcript, 2014] Therefore, Ward proposed a change in pedagogy by suggesting an improved method for the use of
portfolios in the classroom. As Ward and Cate’s conversations in the dialogic learning log progressed, so too did Ward’s instances of refraction. In his eighth entry, Ward reflected upon his displeasure at only being taught the standard five-paragraph essay in school; he then proposed a pedagogical refraction when he suggested that students be taught multiple forms of writing and cited college application essays as a concrete example. In a second example from the same conversation, Ward exemplified a refraction of the text by explaining how he planned on implementing publication requirements for his future students:

Publishing also involves the ego. It makes students feel good when others outside of their classroom read and respond to their work. One idea I had while reading this chapter was to “publish” work from my class and make a book out of it for parents and people from the community to read and respond to when they come in for open house. [Dialogic Learning Log Transcript, 2014]

Ward initially provided a thoughtful reflection situating publication as a motivating factor for students; he extended his reflection by adding pedagogical choice not suggested by the course reading. By taking his future students into consideration and crafting his own pedagogical choices as a result of this consideration, Ward demonstrated refraction. Thus, Ward established that the dialogic learning log process provided itself as a beneficial space for reflecting and refracting upon pedagogical beliefs and concepts.

Cate’s initial dialogic learning log entry also displayed her ability to reflect upon pedagogy; her first reflection detailed a high volume of conversation about her past
educational experiences and how they affected her as a student. Specifically, Cate discussed how she was not a confident writer in school, and writing prompts particularly caused her to be stressed and uncomfortable. Cate also voiced that she was often distracted during reading and that Kirby and Crovitz’s (2012) “split-level journal” strategy would have helped her organize her response to text. Data analysis revealed that Cate found the dialogic learning log to be safe space for constructing pedagogical knowledge since her instances of refraction increased over the course of the semester. Cate’s seventh entry depicted three examples of refraction; one refraction occurred as Cate reflected upon her middle school experiences of reading uninteresting texts; she wrote, 

I know I felt that way when I was in middle school. Often times, teachers do not make writing about something students read enjoyable. This is why students have a bad attitude about it. Teachers need to think about what students like to read. Yes, sometimes students need to read what is required by the teacher and the school system, but there is always room to incorporate enjoyable things, also. [Dialogic Learning Log Transcript, 2014]

Two refractions occurred as a result of reflecting upon her current educational experiences at the university level. Specifically, Cate explained that as a result of her learning, she made the pedagogical decision to model what she wants her future students to do, and she also changed her opinion when she concluded that artwork was a text form.
To conclude, both Ward and Cate displayed highly reflective selves in their asynchronous discussions. Ward and Cate embodied reflective practitioners capable of refracting their pedagogical choices through the thoughtful consideration of both their students’ needs and their desired learning outcomes.

**Teacher selves.** Although Ward and Cate both exemplified successful command of professional, discipline-specific language in their dialogic learning logs, as well as the ability to reflect thoughtfully about pedagogy, their conversations ultimately reflected preservice teachers who were hesitant to envision themselves as teachers.

Throughout the dialogic learning log Ward repeatedly alternated his language when referring to the classroom. On occasion, he would wholeheartedly accept his role as a teacher, while at other times, he remained a student interested in becoming an educator in the future. When Ward confidently envisioned himself as a teacher, he made comments like, “I believe we should promote creative writing in our students,” and “I think it is important for us as educators to look into various methods that will help our students” [Dialogic Learning Log Transcript, 2014]. Conversely, Ward situated himself as a student when he made remarks such as, “teachers should incorporate the student’s voice and selections,” or “teachers can look at it from an academic growth standpoint and evaluate how much their students have improved” [Dialogic Learning Log Transcript, 2014]. As evidenced in the dialogic learning log transcripts, Ward exemplified inconsistencies when envisioning himself as a teacher. Rather than reflect upon how he would choose to incorporate student voice and choice, he made a general suggestion directed toward educators. Therefore, Ward remained
hesitant in envisioning himself as an educator; although he demonstrated the ability to engage in thoughtful pedagogical conversations, his confidence in adopting this role was not always evident.

Interestingly, although Cate had some prior teaching experience in a Bible study class, she also portrayed discrepancies in envisioning herself as an educator in her dialogic learning log discussions with Ward. In her first dialogic learning log entry, Cate vocalized plans to use writing prompts in what she referred to as “my classroom” [Dialogic Learning Log Transcript, 2014]. This possession, coupled with her comment that she wanted her students to know that they could trust her, portrayed Cate as comfortable adopting her role as a teacher. Cate’s further discussions would both support and contradict this stance. On multiple occasions she continued to muse about her future students and how she would implement pedagogical choices in her classroom. However, on several occasions Cate also made general comments that situated herself as a student, rather than a teacher. In her sixth dialogic learning log conversation, Cate appeared to regress when she repeatedly made recommendations for what teachers should do for students without elaborating on how these recommendations impacted Cate herself. She wrote, “If lots of time is spent becoming familiar with the student’s work at the beginning, then the teacher will know how the student has progressed,” and “Teachers should coach the students through the writing process, not just give them an assignment” [Dialogic Learning Log Transcript, 2014]. In these examples, Cate distances herself from the role of a teacher and appears to be more comfortable accepting the role of a student.
Upon conclusion of my data analysis, I determined that both Ward and Cate were hesitant to envision themselves as educators and, thus, the notion of their teacher-selves was emergent. Through their dialogic partnership, Ward and Cate’s conversations adopting the stance of an educator varied, and they often regressed to situating themselves as students who would become educators in the distant future.

**Support.** Ward and Cate’s dialogic learning log discussions revealed that they were highly considerate of one another. Each of Ward’s and Cate’s dialogic learning log entries contained a warm greeting to their partner; often these greetings included lighthearted comments about each other’s personal lives, rather than professionally driven conversations. Throughout the course of the semester, Ward and Cate built on their relationship as a result of their dialogic learning log discussions.

Ward consistently engaged Cate in conversation throughout the dialogic learning log. Along with including a friendly greeting in each of his posts, he also sought her pedagogical opinions and engaged in conversations about his personal life: “Hey Cate! The snow day was amazing, first time I’ve seen that much snow in [our city] since I started at [school]” [Dialogic Learning Log Transcript, 2014]. Ward frequently asked Cate’s opinion regarding pedagogical choices, signifying that he valued her professional opinion. Ward also demonstrated the sentiment that friendship holds a valuable stake in collaborative learning environments when he remarked, “I can’t wait to see our partners interact over this semester. It seems James has a lot of similarities with your partner and hopefully that’ll help them find common ground and develop a friendship.” [Dialogic Learning Log Transcript, 2014]
Similarly, Cate was invested in supporting Ward as her dialogic learning log partner. Throughout her conversations, Cate consistently greeted Ward prior to engaging in a professional discussion, and she also engaged in asking Ward’s opinion from time to time. In her seventh dialogic learning log entry, Cate wrote, “Hey Ward! I had a wonderful time at...orientation – I hope you did too! I learned a lot of valuable information from being in classrooms all day that I cannot wait to incorporate into my own classroom” [Dialogic Learning Log Transcript, 2014]. Furthermore, in her fifth dialogic learning log entry, Cate began by reflecting upon her work with Ward during their previous class meeting with their writing project partners: “Hi Ward! I really enjoyed our last class period together at the Institute. Working with our WPs. Caleb is a very nice little boy and we have a lot in common.” [Dialogic Learning Log Transcript, 2014] In this example, Cate built on the relationship that the pair had developed online by affirming their work together in the classroom. Finally, Cate was supportive when she provided encouragement towards Ward in her final entry:

Hey Ward! It is hard to believe that we are so close to the end of the semester! I cannot believe we are almost seniors. It’s scary! Hang in there.

I know you are really stressed with lots of work, but you can do it!”

[Dialogic Learning Log Transcript, 2014]

As evidenced, Cate sought to provide Ward with support and motivation during a stressful time. Therefore, I concluded that Cate utilized the dialogic learning log as a space to develop a supportive relationship with a colleague.
To conclude, both Ward and Cate demonstrated supportive dialogue and collaboration in their dialogic learning log conversations. As evidenced by their friendly relationship, Ward and Cate’s dialogic learning log affirms the belief that the dialogic learning log discussions are beneficial for the creation of supportive relationships amongst preservice teachers.

**Within-case summary.** Wells and Harper’s dialogic learning log was utilized as a focal case for multiple reasons. First, because the partnership reflected a discussion representative of both genders, their dialogic learning log was favorable to my study as their conversation represented diversity in gender. Wells and Harper’s development of professional language also differed even though they engaged in balanced conversations with one another, which presented itself as an interesting phenomena. The dialogic partnership between Wells and Harper demonstrated how an online, private space for discussion could help generate reflective behaviors in preservice teachers, ultimately enabling them to refract on their pedagogical beliefs as a result of such reflective practices. Discussions between Wells and Harper portrayed that while Wells confidently envisioned himself as an educator, Harper was hesitant to assume this role, falling back into the role of a student on multiple occasions. Specifically, Harper revealed more comfort with making recommendations for teachers when she wrote “Teachers can provide constructive marks and encourage students to explore thoughts deeper and also have students feel ownership for their writing” [Dialogic Learning Log Transcript, 2014]. Finally, the theme of “support” was initially revealed as a result of Wells and Harper’s dialogic partnership, leading me to determine that the dialogic
learning logs may present an optimal environment for the building of supportive relationships between educators.

Barrett and George’s dialogic learning log was chosen as a focal case because it represented a male dominant dialogue depicting unique instances of the themes. Similar to the dialogic learning log partnership of Wells and Harper, Barrett and George depicted differing success in developing professional language in their discussions. While Barrett displayed growth of professional language, George did not portray such growth. Furthermore, Barrett and George demonstrated their abilities to act as reflective practitioners; they engaged in thoughtful discussions of pedagogy and occasionally exhibited refractions as a result of their reflective conversations. Barrett and George’s dialogic learning log transcript also revealed instances of “writing to learn”; in these examples, the preservice teachers summarized the material presented by their pedagogical texts as a process for engaging in reflective practices. As a result of his conversations in the dialogic learning log, Barrett clearly envisioned himself as an educator. In his summative reflection, he wrote about carefully choosing the topic for his unit plan,

I wanted to make sure I picked something that was important, insightful, and something my students could relate with...I believe my students will be able to relate to this important topic since not so long ago we were headed directly towards another depression. [Dialogic Learning Log Transcript, 2014]
Conversely, George’s conversations throughout the dialogic learning log revealed that he did not yet envision himself as an educator. Referring to students as someone else’s rather than his own directly separates George from his role as a teacher when he writes, “If possible, it would be beneficial for your students to have the ability to choose what they want to read” [Dialogic Learning Log Transcript, 2014]. Although George engaged in thoughtful pedagogical discussions, he did so in a general manner, making recommendations for teachers in the field and situating himself as a student who would one day become an educator. Barrett and George’s dialogic learning log transcripts did not reveal high instances of support; however, Barrett vocalized appreciating his relationship with George in his summative reflection, leading me to the conclusion that while it wasn’t overly demonstrative, a supportive relationship between the two preservice teachers existed nonetheless.

Ward and Cate’s dialogic learning log was used as a focal case for multiple reasons. First, because the partnership reflected a discussion representative of both genders, their dialogic learning log was favorable to my study because it reflected a conversation in which both genders were represented simultaneously. Both Ward and Cate offered rich data for my study; their dialogic learning logs were lengthy and thoughtful. Ward and Cate demonstrated high instances of professional language development throughout their dialogue, unlike the cases of Wells and Harper or Barrett and George. In alignment with the previous focal cases, the dialogic partnership between Ward and Cate demonstrated how an online, private space for discussion could generate reflective behaviors in preservice teachers, ultimately enabling
them to refract their pedagogical beliefs as a result of such reflective practices. Ward and Cate detailed this notion in their summative reflection when they wrote,

The DLL has helped Cate and I be able to bounce ideas off of each other and give us a partner to ease the workload/intensity of the semester. Being able to discuss topics in class and what is happening with out WP has given us an outlet and an opportunity to see that we are not the only one going through difficulties or running into problems. The DLL...is something that could be continued in a different form when we are teachers so that we can discuss what is going on in our classrooms and help generate new ideas...it has been extremely beneficial and has given us great insight into the class. [Summative Reflection, 2014]

Discussions between Ward and Cate portrayed that both of the preservice teachers envisioned themselves as teachers on occasion, yet they were hesitant to confidently accept this role. In this manner, Ward and Cate reflected self-images that were in alignment with Barrett and George more so than with Wells and Harper. Finally, Ward and Cate demonstrated that online, private and controlled, asynchronous discussion with a peer contributed to the construction of supportive relationships. Ward and Cate ultimately recommended that the dialogic learning log be implemented in the field as a beneficial support relationship for teachers.

In summation, the three focal cases presented have revealed how preservice teachers develop professional language during a semester-long course that utilizes content-related,
research-based readings. The cases also provided insight into how an online, private and controlled, asynchronous dialogue with a peer enabled preservice teachers to construct pedagogical knowledge. Finally, the three focal cases also provided insight as to how dialogic partnerships enabled students to envision themselves as teachers while potentially developing supportive relationships with their peers.

**Cross-Case Analysis**

Close analysis of preservice teachers’ dialogic learning partnerships revealed how the participants developed professional language while engaging in asynchronous discussions of research-based texts. Furthermore, these online discussions exposed how the preservice teachers’ discussions enabled the construction of pedagogical knowledge. Data analysis ultimately revealed four themes: professional language, reflection and refraction, envisioning one’s self as a teacher, and support. Each of the 18 preservice teachers revealed these themes in unique ways throughout their discussions. Across the cases, there were some similarities, adding to the complexities of the data. Thus, a cross-case analysis was performed to further examine these similarities.

This section details the analysis of the data across each of the nine cases. When data analysis was completed, the cases were clustered as they best related to each other; all of the cases were bounded by three separate categories. First, the binding factor for each of the three clusters is presented. Then, each theme is presented individually, and a discussion of how the themes were supported across all of the dialogic learning logs is revealed.
**Binding factor: Support.** Data analysis revealed that the dialogic partnerships of Conrad and Charlotte and Olivia and Emma largely resembled Wells and Harper’s dialogic learning log relationship. The binding factor for these three cases was that they mainly exemplified highly supportive relationships between the preservice teacher pairs.

Similar to the conversations between Wells and Harper, Conrad and Charlotte’s interactions in the dialogic learning log sought to honor the dialogic nature of the log by including multiple exchanges in each entry. Specifically, each entry of their dialogic learning log contained three posts, ensuring that each of the discussants received a response to their statements. Therefore, Conrad and Charlotte’s dialogic learning log transcripts reflected a pattern: discussant, responder, and discussant’s response. In their summative reflection, Conrad and Charlotte spoke of the collaborative benefits they experienced as a result of the dialogic learning log and expressed the desire to implement a similar assignment in their future classrooms.

Aligning their dialogic relationship with that of Wells and Harper’s and Conrad and Charlotte’s, Olivia and Emma also largely supported the theme of support. Olivia and Emma’s summative reflection exposed that while the two had known each other for a few years prior to beginning their dialogic learning log relationship, the dialogic learning log process took their relationship to another level:

We have known each other since freshman year before we were even in the College of Education and same major together, and we have helped each other grow over the years. However being able to complete a log like
this...we have seen that there was a lot that we did not know about each other [Summative Reflection Transcript, 2014].

Olivia and Emma’s conversations, like the one between Wells and Harper and Conrad and Charlotte, revealed the close, supportive relationship facilitated by the dialogic learning log.

**Binding factor: Reflection and refraction.** The theme of reflection and refraction was identified across all of the 18 cases; however, three cases in particular revealed highly reflective dialogic learning log discussions. Data analysis revealed that the dialogic partnerships of Lucy and Ava and Brooks and Grace largely paralleled Barrett and George’s dialogic learning log relationship. The binding factor for these cases was that they portrayed highly reflective discussions about pedagogy. While each of the three dyads demonstrated inconsistencies revealing the other themes, the partnerships all portrayed discussions characterized by reflective dialogue.

Specifically, Lucy and Ava’s dialogic learning log, like Barrett and George’s, demonstrated disparities in their professional language development; they did not portray a large amount of discipline-specific vocabulary, and each of the preservice teacher’s instances of professional language decreased below their baseline established by their initial entries in all subsequent entries. Lucy and Ava’s discussions, although lacking in professional language development, revealed their reflective discussions about how past educational experiences contributed to their pedagogical understanding. In one exchange, Lucy directly acknowledged the power of the reflection and refraction process when she explained,
As an educator, the feedback from freewrites are more personalized and more beneficial...To me, I hope to incorporate many opportunities for free writing or ‘guided’ free writing. I feel that it would allow me to see where each individual student is in his/her learning and also allow me to see what areas I need to improve as a teacher. [Dialogic Learning Log Transcript, 2014]

In this excerpt, Lucy reflects on the value of free writing as a pedagogical choice, and then further reflects on how it can be utilized as a way to aid in the refraction process of re-envisioning pedagogy to adequately address student needs. Not only is Lucy capable of extending the process of reflection to refraction, but she also voices the importance and value of pedagogical refraction for the benefit of her future students.

Ava wrote that she benefited Kirby and Crovitz’s (2012) message that teachers should read student work and offer feedback that builds students up, rather than provide feedback that is discouraging and critical. She reflected that she initially had trouble with how to provide feedback for her peers in class, as well as while working at the university writing center,

I feel that this relates to class because of our assignments to respond to class notes. We must talk about what our peers did well in their notes rather than criticizing them...I have to utilize this skill when working at the writing center. As a consultant, I am not allowed to physically make edits on the student’s paper because my boss says that it is taking over for them
and taking away their voice as a writer. This was hard for me to do at first, but I feel that it is a really important aspect of the classroom, especially for us as future teachers. [Dialogic Learning Transcript, 2014]

In this reflection, Ava relies on research-based evidence from the course assigned readings to help make connections to her work with peers and in the writing center.

Similar to Lucy and Ava, Brooks and Grace’s dialogic learning log also revealed substantial volumes of reflection. In their conversations, both Brooke and Grace largely relied on past educational experiences to support their reflective process. Brooks, a father who also spent time in the Navy, reflected on his highly traditional and structured schooling experiences and suggested alternate methods for instruction in his future classroom. In one excerpt he explained, “Some of my teachers would just mark up my papers and I would not really have a clue to what they wanted me to do to fix the paper” [Dialogic Learning Log Transcript, 2014]. After reflecting on a pedagogical strategy for constructive revisions, Brooks remarked, “I really believe that this technique of grading written papers is not only a great scaffolding technique, but it is a great way to gain a students trust and respect” [Dialogic Learning Log Transcript, 2014]. In a similar vein, while reflecting upon pedagogical suggestions from the text as they correlate to course activities, Grace explained,

The first assignment sets the tone for the entire year and gives you an opportunity to squelch any anxiety they may be feeling about writing. If we want our students to participate openly in writing groups as we do in Dr. Bishop’s class, acting as an audience for each other’s works, then we
must attend to the “psychological climate of the classroom” [Dialogic
Learning Log Transcript, 2014]

Brooks and Grace’s thoughtful conversations about pedagogy and how to best support their
future students by re-envisioning practice as a result of reflecting upon both personal efficacy
and student learning exemplified the power of reflection and refraction as it occurs through
online, private and controlled, asynchronous dialogue.

**Binding factor: Envisioning selves as students.** While the theme “envisioning
selves as teachers” was prominently revealed through data analysis, some preservice teachers
found it difficult to envision their teacher-selves. Data analysis revealed that the dialogic
partnerships of William and Brynlee and Hollis and Caroline largely resembled Ward and
Cate’s dialogic learning log relationship. The binding factor for these cases was that although
each of the dyads appeared to find the dialogic learning log an acceptable space for
experimenting with discipline-specific vocabulary, developing traits of becoming reflective
practitioners, and fostering supportive professional relationships, these preservice teachers
did not demonstrate a confident ability to envision themselves as teachers.

William and Brynlee’s dialogic learning log transcripts revealed a supportive
dynamic in which they experimented with professional language through highly reflective
discussions. However, throughout their conversations, both William and Brynlee presented
themselves as hesitant about envisioning themselves as educators; while at times they
confidently referred to students possessively, like in William’s final reflection when he said
“I believe that the most basic and applicable skill that pertains to writing that we should teach
to our students is the ability to be flexible with one’s writing skill” [Summative Reflection, 2014], they largely spoke about them in general as evidenced by Williams remark, “Personally, I like seeing pictures of me engaged in some sort of work. I bet some students to too” [Dialogic Learning Log Transcript, 2014]. Although at times throughout the semester his discussions portrayed himself as a confident educator, William ultimately revealed that his teacher-self was emergent in his final dialogic learning log entry. William explained that in general, “it is great to have students write (or talk) about their interests, but this does not challenge them” [Dialogic Learning Log Transcript, 2014]. He continued to reflect on challenging writing experiences he was familiar with, rather than explain how he might challenge his future students. Perhaps most demonstrative of his emergent self-image of an educator was William’s final remark that he still was unsure about how to balance creative writing with professional writing in the classroom.

Like her dialogic learning partner William, Brynlee revealed hesitancy toward envisioning herself as a teacher. In her final entry, Brynlee positions herself as a student when she explained, “I do feel like preparing students for college writing is important, as writing seems to dominate much of my career as a college student” [Dialogic Learning Log Transcript, 2014]. Rather than express how she might prepare her future students for college-level composition, Brynlee referred to herself as a college student and reflected upon her current writing performance. Thus, I deduced that the dialogic learning log process was not beneficial for developing Brynlee’s self-image as an educator.
As evidenced, the focal cases selected for this instrumental multiple-case study largely represent the majority of the class. Wells and Harper’s dialogic partnership was similar to that of Conrad and Charlotte and Emma and Olivia, while Barrett and George’s conversations largely paralleled those of Lucy and Ava and Brooks and Grace. Finally, the dialogue evidenced by Ward and Cate was similar to that of Hollis and Caroline and William and Brynlee. The four themes, as portrayed through all of the nine cases, revealed themselves in varying ways across the preservice teachers in the course. An examination of how each theme is demonstrated by preservice teachers follows.

**Professional language development.** Through the careful analysis of 18 preservice teachers’ conversations with their peers, I sought to identify how they developed professional language. Data analysis revealed that 13 of the 18, or 72 percent of the preservice teachers, found the dialogic learning log to be a beneficial space for experimenting with and developing discipline-specific vocabulary. Of the nine preservice teacher cases, five of them demonstrated a balanced discussion in which professional language was developed over the course of the semester. Barrett, Conrad and Wells were able to develop their discipline-specific vocabulary even though their partners George, Charlotte and Harper did not appear to find the dialogic learning log to be a suitable space for the development of professional language. Finally, the dialogic partnership of Lucy and Ava did not represent a match in which professional language was developed.

The course readings largely supplied the preservice teachers with the discipline-specific vocabulary they experimented with in their peer dialogues. Upon completion of their
weekly readings, the preservice teachers turned to their dialogic learning logs and reflected upon pedagogy; the dialogic learning logs enabled the preservice teachers to explain what was presented and develop a greater understanding, all through using discipline-specific vocabulary. In William and Brynlee’s dialogic partnership, it appeared that Brynlee’s willingness to experiment with professional vocabulary may have been a direct result of her partner William’s high uses of discipline-specific language. I found that Brynlee’s responses to William would contain higher instances of professional language use as the semester went on and William’s professional language increased. Specifically, Brynlee spoke of how “the easy route than can be taken as a teacher is giving all students the same assignment, while a potentially stronger teacher could possibly take the extra time to apply various student interest into the curriculum” [Dialogic Learning Log Transcript, 2014]. William responded by saying, “going off your last point about diversifying curriculum...different students may have different needs, for sure” [Dialogic Learning Log Transcript, 2014]. In this exchange, William subtly corrects Brynlee’s language and points her to the professional language necessary for addressing differentiation.

Professional language use was exemplified in dramatic ways in other dialogic relationships in the course. The dialogic partnerships of Ward and Cate revealed a strong transformation in regards to the use of professional language development, similar to the growth of Emma and Olivia. Both of these dyads revealed that practicing their professional language use in the dialogic learning log throughout the semester enabled them to demonstrate effective command of professional vocabulary in their final discussions.
Across all of the cases it became evident that the preservice teachers experimented with professional language in varying manners. It is important to note that preservice teachers who appeared to regress in professional language as a result of decreasing instances of discipline-specific vocabulary over the course of the dialogic learning log transcripts did not experience a decline in professional language; no preservice teacher “lost” vocabulary. Both Lucy and Ava displayed high instances of professional language use in their initial dialogic learning log entries; Lucy evidenced professional language 13 times, while Ava evidenced professional language 14 times. Throughout their subsequent discussions, Lucy and Ava did not exceed their baseline of discipline-specific vocabulary; rather, their use of professional language appeared to diminish as a result of their highly introspective remarks. For example, Lucy wrote,

For my classroom, I think I would like to have a bulletin board that displayed the “students of the week”. On this board, I hope to choose a couple of students each week that have made terrific grades, progress, or just even committed a random act of kindness. During the middle school years, I think it is vital that we as educators boost the confidence of each child as much as we can and I think whether it be a star chart or a decorated bulletin board we could do just that! [Dialogic Learning Log Transcript, 2014]
Lucy and Ava focused less on responding to pedagogical strategies presented by the text, and more so on their personal reflections of past educational experiences and how they would implement pedagogy at the classroom level.

After examining each of the nine dyads, data analysis revealed that overall, the majority of the preservice teachers found the dialogic partnerships they engaged in with a peer helped to develop their professional language.

**Reflection and refraction.** Data analysis revealed that each of the preservice teacher participants portrayed reflective abilities throughout the dialogic learning log process. Upon completion of their weekly readings, the preservice teachers turned to their dialogic learning log partners and reflected upon pedagogy; the dialogic learning logs enabled the preservice teachers to explain the content presented by the assigned course reading and develop a greater understanding of how they might implement these strategies when they enter the workforce.

On occasion, the preservice teachers would summarize the content more so than offer a critical stance; this was referred to as “writing to learn.” Pope (1999) explains that successful educators reflect upon their pedagogy, and then refract when they determine a change should be made as a result of the reflection in which the students are considered. Preservice teachers aspiring to enter the field, as evidenced by these cases, may first need to experience “writing to learn” before they can achieve reflection and refraction. When preservice teachers included a significant amount of summary prior to offering a reflection detailing their opinions, these statements were coded as “writing to learn”; William, Ward
and Cate, and Barrett and George all evidenced “writing to learn” in their dialogic learning logs. In this sense, the preservice teachers found the dialogic learning log to be a safe space for developing their pedagogical comprehension prior to taking an informed stance on best practices for the classroom environment.

Across all of the preservice teacher participant discussions, significant volumes of reflection were observed. The predominate topics for reflection were from the assigned readings; in fact, many of the preservice teachers labeled their discussions with their reading assignment in order to depict which chapters were being discussed at the moment. Because the readings focused greatly on research-based strategies for writing instruction and assessing student writing, the preservice teachers’ discussions largely focused on critiques of the strategies for instruction and assessment, reflecting on which they preferred and how they thought students might experience them in their future classrooms. Along with the course readings, many preservice teachers reflected on their past learning experiences.

A popular discussion among the majority of the cases was the controversial “five-paragraph essay format”; many of the preservice teachers voiced their displeasure of writing in this way while they were in school and voiced the desire to avoid it in their pedagogy, while Olivia and Emma’s conversations differed, offering favor toward that writing format. Finally, most of the preservice teachers reflected on their experiences with their middle grades writing project partner and how their one-on-one tutoring sessions went during class time. Lucy wrote,
I have A LOT to talk about concerning my WP :) I cannot begin to describe how thankful I am to have had the opportunity to work with my partner...At first I could tell that she was hesitant when we began writing our poems together however during the last meeting she jumped right in and contributed some great ideas. It is amazing to see what she is capable of! [Dialogic Learning Transcript, 2014]

Ava responded with the following remarks about her tutoring session,

My [partner]...is so sweet, kind and incredibly smart. Unfortunately, she is also incredibly shy and doesn’t like to speak up much at all during our meetings. I actually feel that I have to do more of the talking and managing during out poetry writing, which is not a good thing. [Dialogic Learning Log Transcript, 2014]

These reflections were student-driven. While Harper mused about how to help her student who struggled with poetry and general engagement in the learning process, the majority of students reflected on their experiences of teaching writing in a positive manner.

In their summative reflection, Emma and Olivia explained that the dialogic learning process facilitated their ability to refract. They wrote,

After the first reflection, we tried not to agree so much; instead we chose to offer a different way to approach content or lessons in our classrooms...This communication has ultimately helped us to be able to learn that talking things out with each other can help you to learn and
come up with new ideas and innovations for your classroom or the way you teach. It also makes us excited for the possibility of PLCs where we can talk over ideas with other teachers and offer our own advice as well.

[Summative Reflection, 2014]

Here, Emma and Olivia explain the reflective process as being a goal for achieving refraction. This sentiment was echoed across the dialogic learning log partnerships. Specifically, Harper enabled her partner Wells to refract as a result of their conversations about the controversial novel *Catcher in the Rye*, just as Brynlee thanked her partner William for facilitating several of her refractions.

In summation, the dialogic learning log served as an excellent tool for facilitating preservice teachers to become reflective practitioners. As evidenced by the preservice teacher conversations, talking about pedagogy with a peer facilitates the act of reflecting on past educational experiences. Furthermore, the data reveal that when preservice teachers reflect on pedagogy, they often do so with their future students in mind. In this nature, the dialogic learning log also serves as an excellent tool for facilitating refraction in preservice teachers aspiring to best meet the needs of their future students.

**Teacher selves.** During the pilot study phase of this research, I determined that a common theme evidenced through the dialogic learning log transcripts was whether or not the preservice teachers envisioned themselves to be students or educators. Often, the preservice teachers would refer to students as “theirs” and go into vivid descriptions of “their” classrooms and how learning would take place on a day-to-day basis. In this sense,
the preservice teachers portrayed themselves to be confident educators. Upon completion of my data analysis, I observed that six of the preservice teachers confidently envisioned themselves as educators, while the remaining 12 were either hesitant or unwilling to envision themselves as anything other than students aspiring to one day become teachers. Therefore, the majority of the preservice teachers in this study found it more difficult to cross that “dotted line” Dr. Bishop described to in her initial course meeting.

Of the third of the preservice teachers that revealed themselves as confident to enter the workforce, four of these participants were pairs. Conrad and Charlotte both portrayed themselves to be confident in their self-image as teachers; they consistently referred to their future students and sought to develop sufficient pedagogical knowledge in order to meet their needs as best they could. Likewise, Emma and Olivia also embodied confident self-images of educators. In their later conversations, Emma and Olivia engaged in thoughtful discussions about pedagogy and how they could craft lessons and activities that would engage their students.

Both Wells and Barrett demonstrated confidence in their professional images; however, their partners Harper and George did not. Wells’ dialogue revealed him to be more reflective than his partner; he consistently referred to his future students throughout their discussions and made thoughtful considerations of his future classroom environment. In one such example, Wells wrote, “It is important as teachers for us to give students a purpose and the tools for successful writing because students may not see the point in revising writing” [Dialogic Learning Log Transcript, 2014]. In a similar vein, Barrett also frequently
referenced his future students. In his conversations, he critiqued the material presented from the course texts in an attempt to determine what would work best in his future classroom. These results demonstrated that one partner’s efficacy levels were not dependent on another. Therefore, while the dialogic learning log did not overwhelmingly contribute to the preservice teachers envisioning themselves as effective educators, some preservice teacher participants found that the dialogic learning log was a suitable space for envisioning themselves as professionals.

**Support.** The theme of support also revealed itself throughout data analysis. As I sifted through each dialogic learning log transcript, support from the partners manifested through praise, affirmations and positive encouragement. Of the nine cases, all but two preservice teachers evidenced supportive relationships that were fostered throughout the dialogic learning log. Wells and Harper’s dialogic learning log transcripts portrayed high volumes of support throughout the semester, rendering their dialogic learning log to be a safe space for professional discussions. At the end of the semester, Harper voiced her frustration and discouragement about her efficacy with her writing project partner to Wells; he affirmed that she was doing a good job and urged her to remain positive. This relationship largely paralleled that of William and Brynlee’s; William was thanked for his consistent support throughout the semester. On multiple occasions, Brynlee thanked William for extending her pedagogical knowledge and allowing her to make increased connections between the course readings and activities. Emma and Olivia evidenced that not only was the dialogic learning log a beneficial space for fostering a professional relationship with a colleague, but it also
enabled them to learn much more about one another as individuals even though they had already been friends for some time.

Interestingly, two of the eighteen preservice teachers did not contribute to the theme of support. These preservice teachers did not partner with one another; rather, George did not exemplify support in his dialogic partnership with Barrett, and Grace did not exemplify support in her dialogic partnership with Brooks.

Barrett and George’s dialogic learning log transcripts read as sterile and matter-of-fact; they did not exceed expectations for the assignment. Barrett and George discussed assigned readings and course activities with reflective comments, but they rarely checked in on one another or offered personal remarks inquiring about each other’s progress. While Barrett vocalized the fact that he enjoyed his conversations with George and appreciated the professional relationship, George did not echo this sentiment. In fact, George did not comment on his dialogic learning log as being a supportive space whatsoever. These disparities were evidenced by the dialogic learning log transcripts between Brooks and Grace as well. Unfortunately for Brooks, Grace did not engage in dialogic learning log conversations on three separate occasions. As a result, Brooks’ conversations were left undeveloped. Therefore, while the dialogic learning log process was evidenced to be a favorable space for the development of supportive, professional relationships by the vast majority of the course, some participants did not support this notion.
Chapter Summary

The purpose of this qualitative case study was to explore how English language arts and social studies preservice teachers used an online space for a dialogic learning experience. Through the careful examination of the dialogic learning logs of nine preservice teacher pairs, I explored how the partnerships enabled students to experiment with discipline-specific vocabulary presented to them through assigned course readings. Close analysis of the dialogic learning log transcripts also allowed me to explore how the partnerships facilitated the construction of pedagogical knowledge and beliefs. Finally, analysis of the dialogic learning log transcripts revealed that the online, asynchronous student discussions enabled the participants to develop reflective practices, envision themselves as educators, and partake in supportive peer relationships.
CHAPTER FIVE: DISCUSSION

Purpose of the Study and Research Questions

With technology playing a significant role in 21st century learning, teacher preparatory programs not only incorporate technology into their curriculum, but they also prepare preservice teachers for the successful utilization of technology in their future classrooms. The purpose of this qualitative case study was to explore how English language arts and social studies preservice teachers used an online space for a dialogic learning experience. The dialogue of nine preservice teacher pairs was examined, and three dyads were subsequently examined further as a means to determine how online discussion of informational text facilitated increased comprehension of the presented material. Therefore, as well as participants’ development of professional language, this research study also sought to determine how preservice teachers constructed pedagogical knowledge through online, private and controlled, asynchronous dialogue with a peer about research-based readings.

Along with transcripts of the extensive online asynchronous discussions, data included mid-semester and summative reflections from the preservice teachers, primary course documents, course texts, and numerous follow up discussions with the professor of the course.

Both summative and conventional methods of content analysis were used to examine how the dialogic partnerships between the preservice teachers enabled the development of professional language and how the conversations facilitated the construction of pedagogical knowledge. Pope’s (1999) model of Reflection and Refraction, rooted in Schön’s (1983)
concept of the reflective practitioner, provided the framework for the study, allowing me to identify how the preservice teachers developed into reflective practitioners over the course of the semester.

**Discussion of Findings**

The discussion of the findings from this research are presented first in response to the research questions and secondly by the themes revealed from the data. The primary question sought to answer how preservice teachers developed professional language during a semester-long course that utilized content-related, research-based readings. Through the process of highlighting and tallying instances of professional language as they revealed themselves in the data, a summative content analysis of the preservice teachers’ dialogic learning logs and reflections was performed. This process enabled me to answer the initial research question. The second research question probing how an online, private and controlled, asynchronous discussion with a peer enabled preservice teachers to construct pedagogical knowledge, was answered by performing a conventional content analysis of the dialogic learning log transcripts and reflections guided by Pope’s (1999) Reflection and Refraction framework. Finally, a conventional content analysis also revealed the themes of envisioning one’s self as a teacher and support.

**Professional language.** Britton (1969/1986) established discussion as an effective and enjoyable pedagogical tool in the classroom; the findings from my study reiterate this sentiment. Data analysis revealed that 72 percent of the preservice teachers found the dialogic partnerships they engaged in with a peer helped to develop their professional
language. Specifically, five of the dyads engaged in a balanced discussion in which each partner demonstrated increased growth of professional language. One such example occurred when Emma engaged in a pedagogical discussion with her partner Olivia; Emma wrote,

> Journaling, my favorite kind of writing, accompanied by freewriting and snapshot writing are excellent ways to get students interested in writing. Journaling allows the student to tap into their emotions, freewriting is low-stake writing, and snapshot writing gives them a chance to be creative.

[Dialogic Learning Log Transcript, 2014]

In this excerpt, Emma displays skillful command of discipline-specific language when discussing different formats of writing with her partner. These findings support the assumption that having a safe space to experiment with unfamiliar vocabulary is beneficial to developing discipline-specific vocabulary in preservice teachers. Furthermore, this finding helps to substantiate research (English, 2007; Kingsley, 2011; Larson, 2009) that reveals online spaces may allow students to feel more comfortable experimenting with unfamiliar language than they would in a face-to-face environment. Three of the preservice teacher participants were able to develop their discipline-specific vocabulary even though their partners did not appear to find the dialogic learning log to be a suitable space for the development of professional language. For example, although his partner Harper did not reflect significant professional language growth, Wells demonstrated command of discipline-specific vocabulary with comments such as this one about writing groups:
A common complaint I hear in schools is that students feel like their work is pointless, that it will never apply to their lives...but, having students read their writing to others and have peers, rather than teachers, provide feedback seems to be source of motivation and confidence for students. Perhaps my favorite aspect of the writing groups is that they foster collaboration among student. Just like adolescents would often rather take advice from peers instead of their parents, so would students rather take advice on their writing from peers instead of teachers. [Dialogic Learning Log Transcript, 2014]

Here, Wells engages in discussion characterized by professional language using phrases like “foster collaboration” while discussing the value of feedback as “a source of motivation and confidence for students,” even though his partner Harper does not. Therefore, while peer discussion can facilitate the development of discipline-specific vocabulary, students could potentially increase professional language use by keeping a traditional reading log in which they documented their responses to text. Saunders and Goldenberg (1999) established that a unification of traditional literature logs and oral discussion about text offers more comprehension building in comparison to traditional forms of instruction; therefore, perhaps the dialogic learning log, if intended to build pedagogical comprehension and professional language alone, would be best implemented with a face-to-face discussion of the discipline-specific vocabulary and strategies.
Five of the participants did not demonstrate an increase in discipline-specific vocabulary as a result of their dialogic partnerships, indicating that while the majority of the preservice teachers did strengthen professional language, the dialogic learning log experience may not be the best tool for increasing professional vocabulary in all preservice teachers.

**Reflection and refraction.** Data analysis revealed that each of the 18 preservice teacher participants portrayed reflective abilities throughout the dialogic learning log process. Across all of the preservice teacher participant discussions, significant volumes of reflection were observed. Per the framework for analysis, students demonstrated that they were able to consider thoughtfully their future students and themselves in the classroom and reflect on best practices; oftentimes, refractions, or changes in pedagogy followed these reflections. Harper exhibited this process when she wrote,

> Duke’s sequence for assessing student’s portfolio seems to be a good method to improve student writing. I do however think it will be difficult for students to recall so much information about three specific pieces they have written throughout the year. This may lead to students writing reflections that are sparse and repetitive because they cannot effectively recall the thoughts they were experiencing when writing that particular piece. The strengths to this piece however are that students are able to spend time reviewing their work from the year and take pride in selecting the best pieces. [Dialogic Learning Log Transcript, 2014]
These findings indicate that the dialogic learning log is an optimal tool for allowing preservice teachers to become reflective practitioners. Pope (1999) situates reflection as being a defining characteristic of an educator; thus, positioning these aspiring educators as being prepared for their roles in the field. Fecho and Botzakis (2007) explain that when individuals formulate questions, much like the preservice teachers in this study did for their partners, they do so by representing their personal and cultural experiences. This finding was echoed by my research given that a large number of the reflections made in the dialogic learning logs were based on the preservice teacher’s past educational experiences. Fecho and Botzakis (2007) maintain that the sharing of these questions with others enables peers to consider alternate perspectives, a practice that is necessary for teachers hoping to work with highly diverse populations. Therefore, the dialogic learning log process may also help to enable the consideration of multiple perspectives. In her study with middle grades students, Larson (2009) has established that online response to text through peer discussion is a successful way to strengthen students’ comprehension of texts; not only does my study support this stance, but it also establishes that online discussion about professional texts can facilitate the construction of pedagogical knowledge because the dialogic learning log occurred in an online space.

Five of the preservice teachers’ evidenced significant volumes of summarization in their dialogic learning log discussions prior to reflection; these instances were referred to as “writing to learn.” Therefore, it was necessary for these preservice teachers to first “write to learn,” then reflect; refraction may or may not occur as a result. In one such example, Barrett
referred back to “the chapter” repeatedly when he tried to develop further comprehension of how to best incorporate writing about literature in his future classroom. Specifically, he wrote,

The chapter also talks about the connection between reading literature and writing. The connection is undeniable, although many prefer reading literature, rather than writing about it. Nevertheless, writing helps us understand what we read. This chapter also provides six things to consider to get students to write about literature. [Dialogic Learning Log Transcript, 2014]

After this excerpt, Barrett went on to list the six “things to consider” in six separate, summative paragraphs. This example demonstrates the “writing to learn” finding. Interestingly, Barrett spoke about how writing aids comprehension in this example of “writing to learn.” These findings indicate that some concepts were more challenging for the preservice teachers to grasp; thus, writing enabled further comprehension. Spence’s (2008) study with elementary-aged students established that students formulated comprehension of a given topic through the extrapolation of thoughts, ideas, and arguments presented by their peers in social settings; they demonstrated their comprehension through composition. My research contributes to Spence’s findings given that, like the students in her study, these preservice teachers were able to develop and strengthen comprehension of a given topic through a written discussion in which they explained the topic to a peer while making personal connections from past experiences in the classroom. The findings from both this
study and Spence’s, in conjunction with the *Guidelines for the Preparation of Teachers of English Language Arts* (2006) recommendation that written discourse aids critical thinking and communication, solidify the value of the dialogic learning log process in a teacher preparation program designed to prepare teacher candidates for the workforce.

**Teacher selves.** During the pilot study phase of this research, I determined that a common theme evidenced through the dialogic learning log transcripts was whether or not the preservice teachers envisioned themselves to be students or educators. Upon completion of my current data analysis, I observed that a third of the preservice teachers confidently envisioned themselves as educators, while the remaining were either hesitant or unable to envision themselves as teachers. These results are impressive given Pope’s (1999) assertion that the transformation from preservice teacher to educator is one that is challenging, particularly since these preservice teacher candidates have yet to experience internships in the field. The preservice teachers were juniors at the time of this study, preparing for their field experiences the next semester. Of the third of the preservice teachers that revealed themselves as confident to enter the workforce, four of these participants were pairs. These results demonstrated that one partner’s efficacy levels were not dependent upon another. Therefore, while the dialogic learning log did not overwhelmingly contribute to the preservice teachers’ envisioning themselves as effective educators, some preservice teacher participants found that the dialogic learning log was a suitable space for envisioning themselves as professionals.
Emma and Olivia’s dialogic learning log transcripts portrayed them as confident preservice teachers eager to identify themselves as teachers. Not only did Emma and Olivia consistently refer to their future students and classrooms possessively, but they also embodied educators when they provided each other with feedback on their unit plans:

You mentioned that you are worried about teaching too much about the moral aspect of *To Kill a Mockingbird*. I feel that if you tie in some more aspects while hitting the main ideas of the novel and including the invention strategies we have learning this semester, that you will create a successful and intriguing Unit Development Plan. I have found myself trying to find the balance between teaching my students about fast food and the industry today in the unit, while also trying to tie in the information that they need to learn. [Dialogic Learning Log Transcript, 2014]

In this example, Olivia situates herself as an educator capable of providing constructive criticism for a colleague’s unit development. This example also demonstrates how Olivia envisions herself as an educator who is ready to enter the workforce. Groenke (2008) posits that preservice teachers need to be able to practice taking a professional stance with students prior to entering the field; allowing preservice teachers to do so helps build their confidence in a low-stakes environment. Indeed, making an error in the classroom as a beginning teacher may be much more detrimental to feelings of efficacy in comparison to making an error in a safe, low-risk environment as a preservice teacher. Findings from my research indicate that
the dialogic learning log enabled the preservice teachers to experiment with taking professional stances on pedagogy in a safe space where the only judgment they received was from a peer.

Support. The theme of support also emerged throughout data analysis. Of the nine cases, all but two of the 18 preservice teachers evidenced supportive relationships that were fostered through the dialogic learning log; these two preservice teachers did not partner together. In one example from his summative reflection, Barrett reflected on his partnership with George as being incredibly beneficial, and he even expressed his desire to work with him further when he wrote “my partner during this process has been one of the best persons I have worked with while at [school] and I hope I can continue to work with him on future projects” [Summative Reflection, 2014]. Conversely, George did not offer any mention of his dialogic relationship with Barrett in his summative reflection. While George may still have felt supported throughout the dialogic learning log process, he did not voice it explicitly. Nonetheless, this finding shows the potential of the dialogic learning log assignment to develop supportive relationships in preservice teacher pairs. Brooks exemplified the desire to engage in a supportive relationship with his dialogic learning log partner; however, Grace did not exemplify supportive practices in her conversations with Brooks, especially given that she did not respond to Brooks’ three final discussions. Therefore, while the dialogic learning log process was evidenced to be a favorable space for the development of supportive, professional relationships by the vast majority of the participants, some preservice teachers
did not support this notion. Regardless, these findings indicate that an online peer discussion in a safe, private space can be beneficial for building supportive relationships.

While the theme of “support” emerged from the dialogic learning log transcripts, it is possible that the supportive relationships created over the course of the semester were largely the result of being required to engage in this peer-to-peer discussion in a more private space, rather than a collective group setting. Thus, since 89% of the preservice teachers exemplified the ability to engage in a supportive relationship with a peer as a result of the online discussions, perhaps the dialogic learning log assignment best lends itself to developing supportive professional relationships among preservice teacher candidates.

Gratch (2000) claims that preservice teachers are best prepared for the workforce after they have had the opportunity to discuss and evaluate preservice experiences in comparison to what they have learned; through the dialogic learning process, the preservice teachers were clearly afforded this opportunity. Specifically, preservice teacher dyads were able to reflect upon the effectiveness of the pedagogical strategies suggested by their course readings as they were implemented in their tutoring sessions with their writing project partners.

**Implications for Teacher Preparation**

Halliday (1993) claims that language is “the process by which experience becomes knowledge”; through dialogue, we are able to learn more about the world around us. As evidence by this study, dialogue about pedagogy can to foster the experimentation of
professional language use and construction of pedagogical knowledge in preservice teachers. Implications of this study will be discussed as they relate to preservice teacher preparation.

Preservice teachers are assigned a myriad of research-based readings throughout their preparatory programs in order to aid them in understanding how to deliver content in the best way for their students. The ability to merge content and pedagogy, Shulman (1987) explains, is pedagogical content knowledge. As a result of my study, I determined that the dialogic learning log process helped facilitate successful development of pedagogical content knowledge in preservice teachers. Through the online, asynchronous discussion of pedagogical texts, preservice teacher participants were able to share their transactions (Rosenblatt, 1978) with the text, allowing for further transactions in peer discussion. Zong (2009) reiterates that our population is becoming increasingly diverse and that computer-mediated communication is a powerful tool for understanding diverse perspectives. Therefore, preservice teacher preparation programs seeking to encourage the consideration of alternate perspectives of teaching methods may achieve this goal by incorporating a dialogic component for the response to professional texts.

Teacher preparation programs could benefit their students by incorporating an online, asynchronous discussion component for their candidates in which they engage in thoughtful pedagogical conversations. For one, online discussion of pedagogy enables other preservice teachers to further develop their craft of teaching; the notion of continual learning is both supported and suggested for aspiring educators and current educators alike (Council, 2006). Additionally, online discussion about pedagogy, as evidenced by the findings of this study,
facilitates the development of the reflective practitioner; teaching standards specifically require educators to reflect upon their practice (Council, 2006).

Reflecting upon their beliefs and assumptions also aids preservice teachers in understanding their dispositions, rendering them more effective in the classroom (Schussler, Stookesbury, & Bercaw, 2010). Schön (1983) maintains that reflective practitioners are effective teachers who shape curricular content for individual student needs. Furthermore, Schön (1983) elaborates that this form of reflection should be permitted to occur in a community so that teachers can learn from one another’s experiences; asynchronous online discussion allows for this communal space. Finally, Grumet (1989) stresses the importance of creating opportunities for preservice teachers to learn how to support one another. Because the dialogic learning log transcripts reflected high volumes of support, teacher preparation programs would certainly benefit from their inclusion.

The implications presented offer beneficial additions to teacher preparation programs. The data from this study largely support the inclusion of online, asynchronous discussion with a peer as a means for constructing pedagogical knowledge and developing professional language.

**Recommendations for Future Research**

Shulman (1987) established that “a knowledge base for teaching is not fixed and final” (p. 12). Education in the 21st century is characterized by growth and development, requiring educators to be characterized by the same traits. While the findings from my research support the assumption that an online, private and controlled asynchronous dialogue
with a peer can enable preservice teachers to construct pedagogical knowledge and further develop professional language, more research is required at the university level.

The American Association of Colleges of Teacher Education (2013) established that online learning is growing rapidly in teacher preparation. Furthermore, the AACTE (2013) explained that online courses are beneficial for teacher candidates, career changers, and paraprofessionals alike who may need to juggle coursework with careers and family, or who are unable to travel to campus for face-to-face course meetings. Distance education programs and online degree programs will continue to thrive in our technology rich society. With the increased presence of these programs comes growth; however, it remains to be known if online schooling can truly prepare candidates for educational careers. Research into how teacher preparation can occur in an online space is vital.

Mair (2012) maintains that online reflective writing has the potential to enhance preservice teachers’ learning, to further develop metacognition, and to create a sense of empowerment. Mair’s finding is substantiated by the findings from this study. Additional research exploring how preservice teachers may use online reflective writing would be beneficial, particularly as it occurs throughout field experiences. While preservice teachers certainly learn a great deal in their coursework, field experiences offer a myriad of learning opportunities for these aspiring teachers. Implementing a written reflective component such as the dialogic learning log could aid preservice teachers in exploring their successes and failures in the internship portion of their preparatory program. Finally, because teaching is a profession characterized by continual learning, a study exploring how in-service teachers
may benefit from online reflective writing in a collaborative manner would be a valuable addition to literature in the field of education.

The Educator’s PLN, or professional learning network, is a virtual learning environment for in-service teachers allowing for collaborative conversations in which professional development is the desired outcome (Trust, 2012). Trust maintains that PLNs provide educators with a safe, collaborative space for continued learning in which teachers can offer their support and knowledge to colleagues in the field while also receiving the support and knowledge they desire to become the lifelong learners that educators are required to be. Preservice teachers and beginning teachers require unique professional development opportunities that differ from the professional development needs of expert teachers; therefore, research into how PLNs can aid alternate levels of teachers would be valuable for preservice and in-service teacher professional development.

Currently, professional learning communities (PLCs) are implemented in many schools and school districts so that teachers in the workforce are able to experience professional development with their colleagues in a more tailored fashion. However, face-to-face meetings regularly rob teachers of their precious time. Rather than require teachers to attend PLCs that may not offer the professional development they desire, research should be conducted analyzing how teachers in the field can create personalized professional development through the use of a space like the dialogic learning log. Because online discussions may require more structure in order to ensure their productivity (Zong, 2009), it
would be beneficial to study how online professional development could be more controlled and guided, so as to ensure the participants are engaged in the process.

Chitanana (2012) establishes that while online professional development in the field of education has increased in the 21st century, there have been little improvements in the quality of learning. Chitanana posits that constructive dialogue among teachers can contribute to beneficial professional development opportunities and suggests that online professional development allow for supportive, reflective collaboration. The current study largely supports the notion that a dialogic learning log could be a powerful professional development tool for in-service educators. Therefore, a study exploring how in-service teachers develop professionally through the use of an online dialogic learning log would be a valuable contribution to the field.

English language arts educators who value the rich discussion made possible through online discussion of text have called for increased research about best practices for the implementation of online discussion as a learning tool (Larson, 2008; 2009). Zong (2009) suggests that there should be guidelines for discussion to facilitate maximum comprehension. However, Love (2002) found that when students were required to engage in online discussions with structured guidelines, conversation was stifled and not authentic; thus, determining the balance of beneficial guidelines is necessary. Therefore, a research study examining how online discussion can be controlled by structured guidelines as a means to serve as a learning tool at the classroom level would contribute to the literature on teacher preparation.
Summary

The purpose of this qualitative case study was to explore how English language arts and social studies preservice teachers used an online space for a dialogic learning experience. Findings from my study support the statement that an online, asynchronous private and controlled dialogue with a peer enables preservice teachers to develop professional language and construct pedagogical knowledge. In their summative reflection, Olivia and Emma demonstrate this when they wrote,

The combination of [our classes], [our writing partners project], and writing in our Dialogic Learning Log has been a great experience...as we have grown as students ourselves, focusing on how to teach writing this semester, we have been able to use our skills and put them to practice...our confidence in ourselves and middle schoolers has multiplied; we are one step further to becoming teachers! [Summative Reflection, 2014]
REFERENCES


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Appendix A

Exemplars of Professional Language in Preservice Teachers’ Dialogic Learning Log

Transcripts

“Five Paragraph essay format”
“Summative conclusion”
“Low-stakes writing”
“Authentic writing habits”
“The pseudo-genre of ‘school writing’”
“Find their voice while developing their technical skill”
“Writing process”
“Testable objective”
“Directing writing” vs. “Facilitating writing”
“Holistic rubric” vs. “Categorical rubric”
“In-process revision”
“Facilitate growth”
“Formative assessment”
“Content” vs. “Conventions”
“Fluency”
“Extrinsic rewards” of writing
“Writing portfolios”
“Creative process”
“Writing groups...foster collaboration among students”
“Apathy about writing”
“Creative response”