ELEMENTARY PRE-SERVICE TEACHERS LEARNING TO USE SFL–INFORMED STRATEGIES FOR LITERACY INSTRUCTION

By

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To Rob, Michelle, and Lauren, my inspiration in all I do
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Language is a powerful tool authors use to construct meaning. To better meet the needs of their students, teachers need to learn about how language is used in text so that they can better help their students to comprehend the texts they read. This study investigated how a small group of pre-service teachers (PSTs) in an intermediate reading methods course learned to use six reading strategies informed by systemic functional linguistics (SFL), a meaning-based theory about language use. Three research questions guided this study: (a) what understanding about language and SFL-informed strategies do PSTs develop during the course? (b) what are PSTs’ perceptions of the relevance and usefulness of the SFL-informed strategies? and (c) what factors promote or inhibit their understanding and use of these strategies for reading instruction? Data sources included student work from each strategy, exit tickets, participant interviews, and a summative reflection. These data were analyzed thematically through a fluid, dynamic process of open coding and axial coding and using validation strategies such as fieldwork, thick description, audit trail, data triangulation, and member checking. The analysis revealed that (a) the PSTs exhibited a nascent understanding of the six strategies taught and found them to be relevant and useful in the teaching of reading, and (b) the PSTs’ efforts to make sense of the strategies were impacted by factors such as their knowledge of the English grammar, their prior learning
experience, opportunity for group work, amount of scaffolding and feedback, format and quality of instructional delivery, and availability of reading materials. These findings have important implications for both research in teacher education and reading teacher educators who are interested in designing and implementing linguistically-informed curricula and pedagogies.
CHAPTER 1
INTRODUCTION

Schools in the United States must produce graduates with high levels of literacy for American citizens to be successful members of society in the twenty-first century. According to Murane, Sawhill, and Snow (2012), higher level literacy skills are essential to young Americans who wish to explore fields as disparate as history, science, and mathematics; to succeed in postsecondary education, whether vocational or academic; to earn a decent living in the knowledge-based globalized labor market; and to participate in a democracy facing complex problems. (p. 3)

Despite these demands, American students are ill-prepared to function in a society that requires a high level of literacy. Simply put, American students struggle to read well.

Background

The federal government has been tracking student achievement since the early 1970s. The National Assessment of Educational Progress (NAEP), otherwise known as the Nation’s Report Card, tracks student achievement through high-stakes testing. According to the National Center for Education Statistics (2019), student achievement in reading has remained relatively constant since the early 1990s. This may appear to be good news; however, the most recent NAEP results in reading show that 35% of fourth graders, 34% of eighth graders, and 37% of twelfth graders are reading at a proficient or advanced level. In other words, about two-thirds of American students are reading below proficient level. These statistics are concerning.

What is even more concerning is the fact that society today dictates students be highly literate. Beginning in intermediate school, a great deal of what students learn is through reading, and the texts become increasingly more complex as they advance in school. To better prepare students for entry into college or the workforce, American schools must address the difficulties students have in reading comprehension. This will require schools to continue providing reading
instruction beyond the third grade and to help students acquire new reading skills that will help them navigate complex text. However, this in itself will not be enough.

One of the reasons why students struggle to read well is because of how students are taught to read. Currently, American teachers focus their classroom instruction around five components of literacy known as the Fab Five: phonological/phonemic awareness, phonics, fluency, vocabulary, and comprehension. In fact, the federal government mandates use of the Fab Five in major legislation because instruction in these components is scientifically based and proven to be effective in teaching children to read. In 2001, then president, George W. Bush signed the No Child Left Behind Act (NCLB). This legislation dictated that if schools were to receive federal money, they would have to use programs and materials that utilized the Fab Five. Additionally, school districts receiving federal money from NCLB could only provide professional development for teachers to expand skills in reading instruction by using the Fab Five. Under the NCLB Act, the federal government increased school accountability with yearly testing to track student achievement, and some thought NCLB would be the panacea for America’s reading problem. Data show, however, that American students still struggle to read despite the huge amount of government money spent on addressing this problem.

Federal reading initiatives to implement the Fab Five have also proven to be unsuccessful in improving students’ reading achievement. The largest of these federally funded initiatives was Reading First (U.S. Department of Education, 2002). This grant funded program was part of NCLB legislation and was funded over a five-year period totaling more than five billion dollars. Reading First was a program that contained instructional methods solely addressing the Fab Five. Since the Fab Five was touted by the government through NCLB legislation as being scientifically based, the expectation was that American schools would have a
significant increase in student reading achievement. This has proven to be untrue. An impact study was conducted on the effectiveness of the Reading First initiative, and it was revealed that the program was ineffective in improving students’ reading comprehension, despite being a program consisting of the Fab Five (Gamse et al., 2009).

Despite the exorbitant amount of money spent on early reading initiatives such as Reading First, studies show that students still struggle in reading upon entering the intermediate grades. Many students who were successful readers in the early elementary grades tend to experience difficulties beginning in the fourth grade. Although the phenomenon of the fourth grade slump, or the decline in student reading achievement in this grade level, is well documented (Brozo, 2005; Chall et al., 1990; Goodwin, 2011; Hirsch, 2003; Marcon, 1995), most research attributes the slump to the transition from learning to read to reading to learn. However, the fourth grade slump does not explain why students continue to struggle in reading in later years. For many students, the struggle to read well extends far beyond fourth grade. It has also been found that students’ early reading gains tended to erode by late middle school (Perle & Moran, 2004). Research suggests, however, that factors that are not addressed by the Fab Five could be the source of students’ reading problems.

Researchers argued that the school curriculum becomes markedly different beginning in the fourth grade (Christie, 2012; Schleppegrell, 2004; Unsworth, 2002). As students enter the intermediate years of school, they begin to encounter much more complex text. Text types become more dense, abstract, metaphorical, and content rich (Fang, 2004). The language used to create these text types also becomes more complex. Additionally, results from the Reading First initiative established that the components of literacy contained in the Fab Five were not sufficient enough to help students in comprehending these types of texts. Therefore, students
need additional tools to help them navigate and comprehend these types of texts. Fortunately, there are existing pedagogies grounded in sound linguistic theory that contain the tools that can help students better comprehend complex text and develop important literacy skills.

Systemic functional linguistics (SFL) is a theory that examines how people use language and how language is structured for use (Eggins, 2004). The theory was developed by Michael Halliday. SFL has three key premises: language is a creative resource for making meaning, language is a system of grammatical choices for making different kinds of meaning, and people make different kinds of meanings by making choices based on the social context they are in and from the system of grammatical choices. Since SFL is based on how language is used in different situations, strategies grounded in SFL theory may help students to better comprehend the various complex texts they are expected to read beginning in the intermediate grades.

SFL has been well-researched in school contexts for over thirty years in Australia (Coffin, 2006; Halliday & Martin, 1993; Koop & Rose, 2008; Martin & Veel, 1998; Martin & Rose, 2012; Rose & Acevedo, 2006; Veel & Coffin, 1996). SFL informed pedagogies are more recently beginning to gain traction in the United States. Studies have been done in English Language Arts (ELA) (Moore & Schleppegrell, 2014), science (Gebhard & Graham, 2018; O’Halloran et al., 2015), writing (Brisk & Zissleberger, 2011; Harmon, 2013), learning the language features associated with different genres (Brisk, 2012), and history (Schleppegrell & Achugar, 2003, 2004) and have shown promising results in increasing student achievement. Yet, there have not been as many studies documenting how pre-service teachers (PSTs) learn SFL as part of their undergraduate coursework (Fang et al., 2014; Siffrin & Lew, 2018; Swierzbin & Reimer, 2019). It was this gap in the literature that compelled me to initiate this study.
Purpose of Research

Although relatively new to teacher education in the United States, SFL has been found valuable and effective in helping diverse groups of students to close the achievement gaps and achieve grade-level standards (Rose & Martin, 2012). Recognizing that there are few empirical studies that documented how pre-service teachers learn SFL strategies, I decided to conduct a study that explores how PSTs gain an understanding of SFL strategies while learning to teach reading in a teacher preparation program. At the time of this dissertation, I was a regular instructor for the intermediate reading methods class at my university for over three years. Knowing the structure of the class well, I had a strong understanding of how I could infuse SFL teaching strategies into the existing curriculum and at the same time study PSTs learning of these strategies. The purpose of my study was, thus, to examine how PSTs were making sense of SFL strategies while learning to teach reading, whether they found these strategies relevant to their future teaching, and what helped or hindered their learning. More specifically, this study asks:

1. What understanding about language and SFL strategies do PSTs develop during the course?
2. What are the PSTs’ perceptions of the relevance and usefulness of the SFL-informed approach and strategies?
3. What factors promote or inhibit their understanding and use of these language-based strategies for the teaching of reading?

Answers to these questions are important because they can inform future efforts to equip PSTs with SFL strategies so that they can better help their students improve reading outcomes. In other words, if more is known about how PSTs make sense of SFL strategies and what facilitates or hinders their learning, teacher educators can create better and more effective courses or programs that help teachers develop knowledge and understanding of SFL strategies. And with this knowledge and understanding, teachers will have more tools (beyond the Fab Five) at their
disposal and be empowered to assist their students to develop reading competence, especially as they move from primary to intermediate grades, where the language and literacy demands of school learning increase markedly.
CHAPTER 2
LITERATURE REVIEW

The importance of being able to read well is paramount for American students today. Both colleges and workplaces now require individuals to have high levels of literacy. Thus, it is important for schools to provide the best possible reading instruction for students. Chapter 2 presents a review of the literature that helped inform this study. I begin with the conceptual framework that guides the study. Next, I discuss the different reading models that conceptualize the reading process and explain the approaches to teaching reading that have been informed by these models, showing why current approaches are not enough to meet the needs of literacy and learning demands today. Finally, I discuss systemic functional linguistics (SFL), arguing why it offers a new approach to reading instruction that can help address the new literacy demands of schooling. Finally, I critique SFL-informed empirical studies that were done in the United States and establish the need for my own research study.

Conceptual Framework

To better understand how this study is situated within the larger context of reading teacher education, I turned to the literature. Figure 2-1 is a graphic representation of the conceptual framework that has informed this study. The top row of the graphic presents the elements that show how reading research has informed approaches to teaching reading in the United States. The first box in the top row identifies the major models that have conceptualized the reading process. The reading process refers to what researchers believe is happening in the brain during the act of reading. I will discuss several past models and their flaws, which led to the current model in the United States. The current reading model affects the content that is considered imperative for teachers to know to be effective reading teachers, which is what is shown in the second box.
In Chapter 2, I will discuss what approaches are deemed essential for teachers to know such as the five components of literacy consisting of phonological and phonemic awareness, phonics, fluency, vocabulary, and comprehension. Knowing what is deemed essential for teachers in the teaching of reading explains how pre-service teachers (PSTs) are prepared by their college and university programs to teach reading.
What reading teachers are expected to know depends on the reading model(s) and approach(es) that are being privileged in policy and practice. Reading teachers today are expected to develop deep knowledge about the prevalent model and approach. This knowledge is complex, multilayered, and developed and refined over time across contexts. Cochran-Smith and Lytle (1999) conceptualized this knowledge into three types, as depicted in the central middle box of Figure 2-1. Knowledge for practice refers to the knowledge teachers learn through coursework or professional development sessions, where the focus is on learning new ideas, theories, models, programs, or applications. Knowledge in practice refers to practical knowledge that teachers develop through probing and reflecting on their own experiences and expertise as designer and implementer of classroom instruction. Knowledge of practice refers to the knowledge teachers develop through systematic, deliberate inquiries about teaching, learners, learning, curriculum, schools, and schooling. The development of these layers of knowledge is impacted not only by the institutional contexts in which teachers learn (e.g., program structure, student teaching), as depicted in the middle left box of Figure 2-1, and teachers’ own beliefs and prior learning experiences, as depicted in the middle right box of Figure 2-1. Ultimately, what teachers know impacts their students’ learning outcome, as depicted in the bottom box of Figure 2-1. What follows is a discussion of the elements in the boxes of Figure 2-1, explaining the different elements that make up the conceptual framework that undergird my study.

**Different Models of the Reading Process**

Reading is such a pervasive activity in society that many can assume that a universal consensus of what reading is could easily be reached. However, this is not the case. It is important to understand how the reading process is conceptualized by different camps of researchers because theoretical models influence pedagogical practices regardless of whether
or not teachers are aware of the correlation between theory and practice (Moir, 2019). In the following paragraphs, I will discuss some of the more predominant reading models so readers might better understand how current knowledge and practice has evolved based on the interrogation and identification of the weaknesses of each model. In doing so, readers might have a better understanding of new discoveries in reading instruction and how reading is continually reconceptualized and models are revised or created based on empirical studies that investigate strengths and weaknesses of existing models.

**Bottom-up Models**

Bottom-up models find their genesis in educational psychology and describe the process of reading as starting with the printed text and progressing through the mind until meaning is made (Reutzel, in press). Bottom-up models promoted a focus on phonics and proposed that processing in reading happens in a linear sequence. An example of this would be decoding letters to understand words, words to understand sentences, etc. However, some researchers have found that bottom-up models did not give a complete picture as to how people learn to read. There have been many studies that have shown that higher level processing skills such as the background knowledge a reader brings to the text, do have an impact on lower level processing skills in decoding (Bransford & Johnson, 1973; Goodman, 1976; Rumelhart, 1985; Smith, 1971; Weber, 1970). It is these studies that have prompted the conception of other reading models, namely, top-down models.

**Top-down Models**

Top-down models seem to share a dichotomous relationship with bottom-up models. These models find their origins in psycholinguistics and sociolinguistics. According to Stanovich (1980), “these models have been termed top -down because higher level processes interact with, and direct the flow of information through, lower-level processes “ (p. 34), or in
other words, the reading process “begins with more global aspects (the title, the basic idea of each paragraph, etc.) and subsequently goes into smaller linguistic units” (Angosto et al., 2013, p. 84). Although several top-down models have been proposed (Goodman, 1976; Hochberg, 1970; Kolers, 1972; Smith, 1971), they all share the belief that the reading process is driven by what the reader brings to the text, not the text itself. Top-down models emphasize the strengths that readers bring to the text and that meaning is what drives the reading process going from whole to part (Liu, 2010). One of the most well-known top-down models comes from Goodman (1973). In this model, Goodman said that proficient readers sample the text, relying on background knowledge, syntax, and grammar cues in the context of the text to avoid reading every word (Nicholson, 1998).

Like bottom-up models, top-down models also have glaring weaknesses that don’t give an accurate picture of the reading process. The main premise on which these models stand is that skilled readers make predictions and sample text; however, Rayner and Pollatsek (1989) indicated from their work with eye tracking that the eyes are fixated on a majority of words in the text. Stanovich (1980) supported this claim, noting that good readers do use graphic information, especially when readers are uncertain of a word. Finally, Lee (2000) made two arguments against this model; the first being that although both good and poor readers do use context in reading, good readers rely on context less because it is just easier to automatically decode a word; the second argument being that ELL students have little background knowledge to rely on when reading about certain topics and therefore cannot generate accurate predictions. It is these weaknesses that brought about a new model of the reading process.
Interactive Models

Knowing that neither model accurately portrayed the reading process, researchers began developing interactive models that included both bottom-up and top-down components. Interactive models assert that readers use both bottom-up and top-down processes as they read to construct meaning. Unlike the previous two models, interactive models do a better job in explaining how readers process different levels of text (e.g. word, clause, sentence) and combine this information with their background knowledge to create understanding. There are several interactive models that have been proposed (Kintsch, 1974; LaBerge & Samuels, 1974; Pavio, 1971; Rumelhart, 1985) but one of the most well-known interactive models was developed by Scarborough (2001). This model is known as the “Reading Rope”. The rope consists of upper (language comprehension) and lower (word recognition) components. Specifically, the lower components, composed of phonological awareness, decoding, and sight word recognition skills work together as the reader strives to become more fluent and automatic through practice. Meanwhile, the upper components, consisting of background and vocabulary knowledge, language structures, verbal reasoning, and literacy knowledge reinforce and work together, while simultaneously weaving in the word recognition components, resulting in a proficient reader. It is these interactive models that currently influence the approaches to teaching reading in American schools.

Current Approach to Teaching Reading

The current approach to teaching reading is based on a simple view of reading. This simple view is comparable to interactive models of reading. One example of such an approach to teaching reading is called the Simple View of Reading (SVR) (Gough & Tunmer, 1986), which states that Language Comprehension (LC) x Decoding (D) = Reading Comprehension (RC) (Figure 2-2). The figure shows that reading contains two domains: printed word
recognition and language comprehension. From those two domains there are five components, or components: phoneme awareness, phonics, fluency, vocabulary, and reading comprehension. These five components have also been researched through empirical studies to be effective when teaching students how to read. These five components are also known as the Fab Five. I will briefly describe each of these components below.

**The Simple View of Reading**

Reading is the product of decoding (the ability to read words on a page) and language comprehension (understanding those words)

Figure 2-2. The Simple View of Reading (Gough & Tunmer, 1986)

**The Phonological/Phonemic Awareness Component**

According to Lane (2002), “phonological awareness can be defined as the conscious sensitivity to the sound structure of language” (p. 101). There are four levels of phonological awareness, each associated with the different levels of spoken language. At the word level, children understand that the flow of spoken speech can be broken down into individual words.
Words can be broken down into distinguishable units called syllables at the next level. The third level is the onset and rime level, which consists of the onset, or the part before the vowel, proceeded by the rime, which is the remaining part of the syllable. Finally, there is the most sophisticated level, called the phoneme level. Phonemes are the smallest units of sound in spoken language. Children who exhibit strong phonological awareness can detect, match, blend, segment, and manipulate sounds in speech. Phonological awareness is promoted in the teaching of reading because students who show great flexibility with speech sounds can more readily apply these skills when learning to decode print (Lane, 2002). Moats (1995) has also argued that poor readers lack the ability to process the phonological building blocks of language and the print that represents these sounds. Common phonological awareness activities that are common in classrooms today include tapping, blending, and deleting syllables, matching and blending onset and rimes, and blending and segmenting phonemes, or the smallest unit of sound in speech.

**The Phonics Component**

Phonics refers to various approaches that can be used to teach children about the orthographic, or written code of language and the relationships between spelling and sound patterns (Stahl, 1992). There are different approaches to teaching phonics. For example, synthetic phonics teaches children to convert letters into sounds and then blend the sound back together into recognizable words. Analytical phonics on the other hand, teaches children to analyze letter-sound relationships once the word is already identified (National Reading Panel, 2000). Regardless of the approach, Stahl (1992) argues there are nine principals that exemplary phonics instruction must contain. These include, building on children’s concepts of print, building on a foundation of phonemic awareness, being clear and direct, being integrated into a comprehensive reading program, focusing on learning words and not rules, possibly including instruction on onset and rimes, including opportunities to practice invented spelling, developing
independent word recognition strategies focusing on the internal structure of words, and developing automatic word recognition skills. The importance of phonics, or “the code” has been promoted since the 1950’s with Flesch (1955). In fact, Flesch (1981) claimed that without knowing how to decode, students would grow up to be “functional illiterates or educational cripples” (pg. 3). Chall (1967), another supporter of the phonics approach, argued that explicit instruction in phonics produced better results for students. The extensive research on the impact phonics has on student reading achievement has influenced basal programs to include explicit, systematic phonics instruction in their curriculum as is seen as something teachers must know how to teach well as part of their daily instruction.

The Fluency Component

Fluency is a reader’s ability to read text with speed, accuracy, and proper expression. Fluency has long been tied to reading decoding and comprehension. LaBerge & Samuels (1974) argue that fluency develops as students become more automatic in decoding which enables them to read more quickly and accurately. As a result, students’ cognition is freed to focus on reading comprehension. This may be common knowledge among teachers today; however, this hasn’t always been so. In fact, according to Rasinski, Homan, and Biggs, “for years reading fluency was the forgotten stepchild of the reading curriculum” (2009, p. 193). However, with the renewed focus on fluency instruction, teachers are expected to provide daily fluency instruction for their students. Such classroom activities include teacher modeling, choral reading, rereading, partner reading, reading widely, speed drills, readers theater, and poetry reading.

The Vocabulary Component

Vocabulary instruction is the explicit teaching of word knowledge. Researchers have demonstrated a strong link between a student’s vocabulary knowledge and reading comprehension (Davis, 1942, 1944; Thorndyke, 1973). That is to say, students who exhibit strong vocabulary
knowledge, also show strong comprehension. Therefore, vocabulary instruction is seen as a way to help students develop new concepts by learning the words that encode them (Snow, Burns, and Griffin, 1998). Research has shown there are several predominant ways of teaching vocabulary and these approaches are what teachers are expected to teach their students. The first method is explicit instruction where students are given definitions or attributes of a word to be learned. Teachers are also expected to teach vocabulary in context. One such activity includes teachers explicitly teaching their students about context clues. Another method is implicit, or indirect instruction, where students are reading widely every day which exposes students to new vocabulary through repetition.

Multimedia methods, or how students learn vocabulary through graphic representations or hypertext in digital texts is another form of vocabulary instruction (National Reading Panel, 2000). Yet another approach is to teach vocabulary directly using graphic organizers, such as using a Frayer model (Klausmeir et al., 1968).

**The Comprehension Component**

Reading comprehension is the ability to understand and interpret what is being read. To achieve comprehension, many times readers must employ comprehension strategies. A reading comprehension strategy, according to Graesser (2007, p. 6), is “a cognitive or behavior action that is enacted under particular contextual conditions, with the goal of improving some aspect of comprehension”. Much of what is known about reading comprehension today can be attributed to the work from cognitive psychology. Several studies would change our understanding of how readers are engaged cognitively during the act of reading. Several researchers have examined how readers use metacognition, or the knowledge of the factors that affect learning, through the use of cognitive reading strategies (Dole et al., 1991; Pressley et al., 1989; Duffy et al., 1987). These strategies include activating background knowledge, visualizing, determining importance, summarizing, drawing inferences, generating questions, monitoring comprehension, and predicting.
The purpose behind these strategies, according to Palincsar and Schutz (2011), is to move students toward being strategic readers who are actively engaged in problem solving while reading so they can go beyond a text based level of comprehension. Furthermore, researchers were also successful in teaching students to use think alouds (Bereiter & Bird, 1985; Palinscar & Ransom, 1988), how to coordinate strategies (Collins, 1991), and how to operationalize strategy instruction in classrooms (Pressley et al., 1989). These strategies are now commonplace in teacher education programs and teachers are expected to teach them as part of reading comprehension instruction.

Besides this, several important studies regarding the structure of narrative texts (Rumelhart, 1975; Stein & Glenn, 1979), as well as informational texts (Kintsch, 1974; Meyer, 1975) noted how structure could either hinder or add to a reader’s comprehension. But perhaps the largest contribution made regarding reading comprehension was that of schema theory (Anderson & Pearson, 1984; Rumelhart, 1980). Pearson (2000) described schema theory as “a theory about the structure of human knowledge as it is represented in memory. In our memory, schemata are like little containers into which we deposit particular experiences we have” (pg. 17). Schema theory explains how important background knowledge, stored in memory, is important in the process of reading. Without background knowledge of the information contained in texts the reader has little to anchor their understandings to, and as a result, comprehension suffers. This research, coupled with the influence of interactive models, has influenced how American teachers provide instruction in reading. It would seem that America’s approach to teaching reading was based on sound theory. Based on this, the expectation then should be that American students should be reading well, although this is not the case.

**Problems With the Five Components**

The No Child Left Behind Act (NCLB) was legislation signed into effect to improve student achievement in American schools by then President George W. Bush in 2001. As part of
its inception, the federal government funded a major reading intervention called Reading First which was intended to significantly increase student reading achievement. Districts receiving funding had to use funding in three specific ways. First, they must use materials and curriculum that focused on the Fab Five. Secondly, they must provide professional development and coaching for teachers in learning how to implement the Fab Five in classrooms, especially with struggling readers. Lastly, they had to diagnose and prevent student reading difficulties by screening students, providing interventions for struggling readers, and monitoring student progress through assessments. With this major intervention in place, it looked as though student reading achievement was set to improve. Sadly, this was not the case.

An impact study of the Reading First program (Gamse, Jacob, Horst, Boulay, & Unlu, 2009) showed that although there was a significant impact on the amount of instructional time spent teaching the Fab Five in grades 1 and 2, there was no significant impact on student reading comprehension in grades 1-3. In fact, students who received instruction from Reading First schools scored in the 44th (1st grade), 39th (2nd grade), and 39th (3rd grade) percentiles on the end of the year Stanford Achievement Test. Upon further examination, there may be reasons why Reading First did not help students improve comprehension.

Some researchers such as Allington (2013), argue that an over-reliance on instruction in phonics and decoding beyond first grade could be a contributing factor. A significant instructional shift in Reading First is to have students decode nonsense words to demonstrate how strong their decoding ability is. A consequence of doing this is that students do not develop important comprehension and self-regulating strategies when reading authentic texts (Pressley, 2002; Walmsley, 1978).
Additionally, researchers such as Pearson, Palincsar, Biancarosa, & Berman (2020) voiced concern that the impact study did not investigate the quality of comprehension instruction within Reading First. Because of this, they hypothesized two issues could have impacted comprehension instruction. First, the initiative addressed comprehension through the use of specific strategies (e.g., visualizing, summarizing, predicting, questioning, rereading, thinking-aloud, and determining the main idea and details). However, since the quality of implementation of the strategies was not tracked, they argue that teachers could have taught the strategies as an end in themselves and not as a vehicle to help students become strategic readers, which would improve their comprehension. Secondly, Reading First placed an emphasis on fluency instruction, noting that if students could decode and read fluently, more cognitive space would be available for comprehension. A major instructional shift in assessing student fluency was through teachers’ use of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment. Pearson et al. (2020) argued that the use of this assessment shifted the focus from reading comprehension to building speed in reading. Other scholars support this assertion. According to Pilonieta (2012), the push for students to perform on standardized assessment measures has resulted in an overemphasis on reading fluency, resulting in teachers being misled in believing that the goal of reading fluency is to raise reading rates as high as possible.

Although Reading First is no longer being implemented, American classrooms are still implementing the Fab Five and instructional practices from Reading First. What is concerning is that it has been over ten years since the impact study has shown there are problems with how comprehension is addressed, the problems have not been addressed, and according to NAEP test results, only one third of 4th, 8th, and 12th grade students can read at proficient levels (National Center for Education Statistics, 2019). What is even more troubling is that these instructional
practices emphasize reading instruction in the early elementary years and do nothing to address the new demands students will meet in the later years of school. One such demand is how language is used in text. As students enter intermediate school, they begin to read more complex texts across various subject areas. These texts also contain language that is much more sophisticated and difficult to comprehend as compared to their everyday vernaculars. The Fab Five addresses language through the vocabulary component. Yet, the language used to construct complex text goes beyond vocabulary. Therefore, additional approaches are needed to help teachers make sense of the language that is used in complex text.

There is already strong support for using a language based approach in the teaching of reading. It is well recognized that several linguists have called for language to be foregrounded in the teaching of reading (Fang, 2004; Halliday & Matthiesen, 2014; Halliday, 2007; Hasan, 2011; Christie, 2012; Schleppegrell, 2004; Christie, 2005; Derewianka & Jones, 2018). In fact, Gee (1999) argues that language based approaches should be included in reading instruction so students can read, comprehend, and write texts for authentic purposes. He asserted, 

If we do not begin to transform debates about reading into debates about language, literacy and learning (which, of course, greatly broadens the relevant research base), then, I predict, we will soon face another and new “crisis”: elementary, middle school, and high school classrooms will be filled with children who have successfully passed basic reading texts by the third grade and yet cannot use language (oral or written) to learn, to master content, to work in the new economy, or to think critically about social and political affairs. (pg. 358)

Halliday (1993) also stressed the importance of including language as part of literacy instruction. He maintained that language “is the essential condition of knowing, the process by which experience becomes knowledge” (pg. 94). This is to say, that language is the medium in which school knowledge is conveyed. When students learn in school they are simultaneously “learning language”, “learning through language”, and “learning about language” (Halliday, 1993, pg.
Embracing approaches grounded in language may be the key to helping students to better comprehend text. However, teachers will need explicit instruction and support to learn these new approaches. Still, much more will need to be done than to tell teachers to include more language instruction in reading lessons as that does little to help them understand more about language and how to implement language instruction authentically in their reading lessons. A language based approach to teaching reading should emphasize how language is used across different types of text to create certain types of meaning. Fortunately, there is now a specific language based approach that helps students learn about language at the same time they learn content. This approach is informed by systemic functional linguistics, described below.

**Systemic Functional Linguistics**

Systemic functional linguistics (SFL), or functional grammar, is a theory of language developed by linguist Michael Halliday. SFL places a central focus on how language is structured for use (Eggins, 2004). There are three major principals in SFL theory. First, language is a creative resource for making meaning. Second, language can be seen as a grammatical system of choices used for making meaning. Lastly, people make meaning based on the context of the social situation they find themselves in, along with the choices they make from the grammatical system (Eggins, 2004; Halliday, 1985a). There are two main concepts within SFL that are essential to understand. These concepts are genre and register. Teachers must have an understanding of genre and register so
that they can teach these concepts to students. Students will be expected to understand these concepts, so they are successful in both reading and writing tasks in school.

**Genre**

From an SFL perspective, genres refer to text types in which language is used to serve a social purpose within a given culture (Martin & Rose, 2008). Table 2-1 (Derewianka, 1990) shows the common genres that students see and are expected to master throughout the K-12 school years (see p. 46). The first column explains the social purpose of each genre, the second column gives the different types or examples within each genre, and the third column gives the stages for how each genre is organized. Each genre has a basic structure (with stages) that makes it the type of genre it is. Understanding this basic structure is key to mastering the genre and becoming creative with it. The fourth column in the figure shows some of the language features that are also common to each genre. The language features in the column are not exhaustive but is meant to give the reader an idea of which language features are common in each genre. Just like the genre stages, the language features shown in the fourth column are not set in stone and are also subject to creativity and variation. It is the variation of language features across genres that creates different registers.

**Register**

Register refers to the variety of language that is used according to context (Halliday & Hassan, 1985; Thompson, 2014). People will vary their language through their vocabulary and grammar depending on three contextual variables. The first variable is the content of what people are talking about (e.g., a football game, the upcoming math test). The second variable is the power relationship between the people involved in the interaction (e.g., doctor-patient, teacher-student). The last variable is the role language plays in an interaction (e.g., channel of communication). Understanding the register variables for different texts is important for teachers
to know for two reasons. First, recognizing register variables in texts can help teachers explicitly teach the language features and the grammatical patterns found in different types of texts, which can improve student comprehension. Secondly, when students are expected to write their own texts in a particular genre, teachers can explicitly teach those same grammar patterns that are consistently found in each genre within a particular context. This will help students become more successful readers and writers in each genre (Fang & Schleppegrell, 2008).

**Genre and Register in Reading Instruction**

An example of a text that can be used to provide instruction on the concepts of genre and register can be found in Table 2-2 (see p. 47). The text in this table is a report genre on different types of clouds and is consistent with what a typical fourth grader might produce. A teacher could use this text to show students what a good piece of student writing might look like. The teacher can help students learn more about genre by discussing the social purpose of a report and then looking at the different stages of this report. The teacher and students can analyze the text by discussing each stage and what is contained in each stage. For example, the teacher and students can discuss how the opening statement shows readers that the topic will be about different types of clouds, that there are general facts about clouds, and, as the last sentence points out, clouds look different because there are different types of clouds. The teacher and students can proceed through the different stages, discussing how each paragraph introduces and gives facts about each type of cloud. By discussing the different stages, the teacher is helping students to learn more about how the purpose of a report genre is accomplished.

The teacher can also give students explicit instruction about register by discussing how language choices instantiate the different stages in the text. This can be done by drawing students’ attention to grammatical features such as general nouns (clouds, fog), technical vocabulary (water vapor, cirrus, stratus, and cumulus clouds), action verbs (collect, float) that are
used in timeless present tense (They collect together in the sky, They float low in the sky at about 3,000 feet), and being verbs that are used to define and describe each cloud (Cumulus clouds have a flat bottom and a round top, They are white and puffy and can look like a head of cauliflower or a cotton ball).

The above examples are just a few ideas for what can be taught in this text. It also shows how a teacher might approach instruction with their students as they analyze the grammatical patterns in texts students read throughout the day such as their science or social studies books. Understanding the grammatical patterns in texts can also help students know how to use these same patterns flexibly when writing across different genres. Studies (e.g., Achugar & Carpenter, 2012; Harman, 2013; Moore & Schleppegrell, 2014; Symons et al., 2017) have found that using SFL in classrooms can support student reading comprehension, improving both reading and writing tasks in school.

**Empirical Research in SFL**

Currently in the United States, there are at least three major universities that actively study how SFL can be used in classroom contexts. While there are other researchers studying SFL in educational contexts, these three universities have produced a great deal of literature, which helped shape this study. In this section, I identify the universities and senior SFL researchers and then describe several studies from each program, beginning with studies in elementary schools and moving to secondary school studies. I then review several studies conducted independently that specifically studied how undergraduate PSTs learn SFL in the context of a university course. Finally, I will establish the need for this study.

**University of Michigan – Mary Schleppegrell**

Dr. Schleppegrell is an SFL researcher currently working at the University of Michigan. Her team conducted several studies through a large, grant funded program called the Language
and Meaning Project. This project examined how meaning is uncovered in texts through a functional focus on language. These studies, conducted in elementary classrooms, focused both on the professional development of in-service teachers as well as how a focus on language could help improve student reading comprehension. I have highlighted several studies in this section.

Palincsar and Schleppegrell (2014) worked with elementary teachers in grades two through five, many of whom are English Language Learners (ELLs). The focus of this study was to help teachers to understand how language is used to express likelihood in science. This is an important skill in teaching students to read critically as students need to understand that authors of science texts need to make careful choices in their language to modulate how strong a claim they make or the certainty of the evidence they provide.

Another study was in the area of English Language Arts (ELA) and dealt with character analysis (Moore & Schleppegrell, 2014). In this study, both teachers and students learned about indirect characterization, or how authors develop characters in implicit ways. Specifically, they learned that characters are developed through their attitudes, or what they do, say, think, and feel.

One way teachers and students learned how authors create different types of characters is by adjusting the force of a character’s attitude in a negative way (e.g. I DISLIKE soccer. I DETEST soccer.) or in a positive way (I LIKE chocolate. I ADORE chocolate.). Teachers and students also learned about how authors can show how a character feels through showing or telling. This is done through verb choice. Showing teachers how to explicitly use these language features to develop characters helped students to better comprehend narrative types of texts.

The final study I would like to highlight from this group also dealt with science. A common misconception students hold is the belief that science texts are composed of immutable facts. O’Hallaron, Palincsar and Schleppegrell (2015) made teachers aware that these texts
actually do contain author attitude but because of how these types of texts are composed, can be
difficult to detect. The professional development held in this study helped teachers learn the
language features expressed in modal verbs and adverbs that exhibit the stance an author takes in
a text. Having teachers learn about the language features involved with authorial stance can help
students improve their reading comprehension by learning to distinguish between fact and
opinion. By examining authorial stance, students could better determine which statements in the
text were facts, and what word choices signaled the author’s opinion.

**Boston College - Maria Brisk**

Dr. Brisk is another SFL researcher that studies how SFL can be used to teach writing at
the elementary level. Another area she focuses on is how to implement genre-based pedagogies
into the school curriculum. In this section, I would like to highlight three studies. Although Dr.
Brisk and her team focus on writing, her work on genre and register is important because of the
relationship between reading and writing. If students understand different genre stages and the
language features associated with different genres, they will be able to better comprehend texts
because they will explicitly know the language resources and moves the author is making. Then,
they will be able to use their knowledge of genre and language features in the text they write.

Brisk, Hodgson-Drysdale, and O’Connor (2011) worked with teachers on developing
their knowledge about report writing. Teachers participated in professional development, and
some were observed and coached throughout the school year. Teachers learned about the
concepts of genre and register and analyzed a variety of texts to help them better understand
these concepts. They also learned about the genres that are appropriate for elementary grades,
The study was conducted at an elementary school and students from pre-kindergarten through
fifth grade participated in report writing. The study found that all students were able to produce
reports with teacher scaffolding. Most students understood the purpose of the genre. There were,
however, still challenges with organizing the text in a logical order, audience awareness and the
language features associated with audience awareness such as using first person pronouns (I, we)
instead of third person, expanding noun phrases to provide clear descriptions, and lack of using
synonyms for certain nouns so as to avoid the writing sounding stilted.

Brisk (2012) continued her work on writing at the elementary level by conducting a study
on how students develop writing across genres. This study examined students’ understanding of
the purpose of each genre, and their awareness of audience by analyzing how they used
pronouns, as well as using first, second, or third person. Teachers were also observed teaching
writing lessons and received feedback and coaching. This study found that students did not fully
understand the purpose of each genre. The genre also dictates how the author positions
themselves with their audience. It was found that because students did not fully understand the
genre’s purpose, they did not choose the correct grammatical person (first, second, third), or
voice within their writing. Finally, it was found that there was little explicit instruction by
teachers regarding audience or voice. This suggests that teachers themselves, did not fully
understand these concepts.

Finally, Brisk, Tian, & Ballard (2021) conducted a study that followed an elementary
school teacher as he participated in the professional development opportunities described
above. In fact, he participated in the program for over ten years. This team analyzed writing
from this teacher’s students over the course of four years to examine the impact the
professional development had on how he approached the teaching of autobiography writing. It
was found that three factors helped to make positive instructional shifts for this teacher
possible: learning SFL concepts, learning instructional practices guided by a teaching and
learning approach, and effective professional development in writing throughout his ten years
in the program. Additionally, it was found that with the teacher’s growth in knowledge, students’ writing also improved. One such example was how the students’ writing shifted from a listing of random chronological events to writing events that reflected both their identities and how their identities evolved throughout their lives. This study shows that helping to develop a teacher’s knowledge can lead to positive instructional shifts that can lead to better student academic performance.

These elementary studies have shown the positive impacts SFL can have on both teachers and students and have helped to inform this study. In the next section, I will discuss several studies done in SFL at the secondary level.

**University of California Davis – Mary Schleppegrell**

Before working at the University of Michigan, Dr. Schleppegrell led a team at the University of California at Davis. Her team did a great deal of work in the area of history to support California teachers in helping their students to make meaning from the historical texts they were required to read. The four studies I would like to focus on were conducted within a project called the California history project (Schleppegrell & Achugar, 2003; Schleppegrell et al., 2004; Schleppegrell & de Oliviera, 2006; Schleppegrell et al., 2008). These studies offered professional development to in-service teachers during the summer. These institutes instructed teachers on grammar features that construct history texts. Such features included how different types of verbs construct the author’s point of view, how connectors organize texts, how causality is realized in verb constructions, how nominalizations (verbs or adjectives turned into nouns to create entities) are used to create abstraction, how reason is constructed within the clause, and how language is used to foreground and background information as well as to elide the agency of participants. The information and SFL tools learned in the institutes helped teachers to
thoughtfully plan lessons with a focus on both language and content and helped their diverse set of students with reading comprehension of historical texts.

**University of Massachusetts Amherst – Meg Gebhard**

Meg Gebhard is an SFL researcher at the University of Massachusetts Amherst. Her team at the university has developed a university-school partnership called ACCELA (Access through Critical Content and English Language Acquisition) which is an organization designed to support urban teachers in using SFL to improve students’ literacy outcomes. Several studies at the secondary level have been found from this group that I would like to highlight.

In the first study, Accurso, Gebhard and Purington (2017) focused on professional development with both pre-service and in-service teachers at the secondary level seeking content area licensure. The semester-long study was part of a course required by the state. The study focused on using SFL tools to identify and analyze the language in math texts as well as teaching participants to develop curricular units that addressed both content and language standards. The study found that participants were better able to provide explicit feedback to students for steps that should be taken to improve their work to better meet the purpose and genre requirements of assignments by the conclusion of the study.

Gebhard and Graham (2018) also conducted professional development that helped teachers guide their students in recognizing the different genres of several science texts about a local bat population suffering from White Nose syndrome, comparing each genre with the author’s register choices. With the teacher’s guidance, students were able to deconstruct these texts, focusing on the vocabulary and grammar choices of the authors so they could better comprehend them. Using this same knowledge, the teacher helped guide students in constructing their own texts written to their US senator petitioning that he help the local bat population. Upon
receiving a reply from the senator, the students critically examined and deconstructed the letter, noting problems in both the structure and register choices that were used.

Finally, Accurso, Muzeta, and Perez Battles (2019) conducted a study where they used SFL to help a middle school PST plan two units where students would be able to make meaning across texts and artwork. The study also focused on empowering marginalized voices of students as the school in which the PST worked was both, ethnically, demographically, and linguistically diverse. Both the students and PST in this study learned to use metalanguage, or a language for talking about language, such as ambience, color, attitude, proximity, orientation, involvement, power, social distance, size, and focalization to discuss the different types of meaning artists make, compare and contrast different author’s meaning choices with the linguistic choices of authors using texts on the same topic, highlight works of minority artists, and have students produce new works and knowledge using concepts learned from the unit. This study was an important addition to the literature as the concept of text has expanded to include visual sources and helps better prepare PSTs to plan for instruction that meets both language and content standards.

**University Courses on SFL**

Finally, there are three studies in which PSTs learned SFL during a university course. These studies helped me to consider how I would shape my own study. They were done independently and were not part of any of the groups listed above.

A study, conducted by Fang, Sun, Shiu, and Trutschel (2014), focused on how in-service teachers participating in a master’s level content area literacy course learned an SFL approach called Functional Language Analysis (FLA). FLA (Table 2-3) (Fang & Schleppegrell, 2008 p. 110) is a way of analyzing language patterns in a text to unlock meaning (see p. 47). The study examined participants’ attitudes towards the FLA approach in a 10-week online class. Several
key themes emerged from the participants’ survey data: FLA is novel, interesting, and challenging; it is enlightening and potentially useful and usable in the classroom; and enacting FLA requires considerable support for teachers.

Swierzbinski and Reimer (2019) conducted a study that examined the effects of a semester-long grammar pedagogy course on their students’ beliefs about teaching grammar. Their 40 participants were undergraduate PSTs and in-service teachers working towards an English as a Second Language (ESL), or Teaching English as a Foreign Language (TEFL) teaching license. A qualitative study was done on seven of the participants pre and post course concept maps. It was found that although PSTs knowledge of grammar grew over the course of the semester, only two of the seven exhibited a shift in their beliefs about teaching functional grammar.

Finally, Siffrinn and Lew (2018) developed a class for their elementary PSTs that would better prepare them to teach disciplinary literacy. PSTs in this class learned the SFL concepts of genre and register and how language features varied across disciplines. Classroom activities helped PSTs better understand genre stages, language choices, and how texts are put together in cohesive ways. PSTs learned to plan instruction for both lessons and curricular units that would address both content and literacy standards as well as creating content and genre specific rubrics to assess the writing tasks within the units they planned.

My Study

Many of the SFL-focused studies in this literature review were conducted with in-service teachers and teachers serving English language learners. Thinking back to my conceptual framework, I understand that many of the teachers in these studies had several years of teaching experience and went through a considerable amount of professional development that they could draw from before learning SFL pedagogy. This is what makes my study different. My PSTs have
had limited experience working with students; thus, they have both less knowledge for practice
and knowledge in practice.

Moreover, the teachers in most of the studies reviewed above focused on learning SFL in
either preservice coursework or professional development workshops. In my study, however,
SFL strategies are only a part of a reading methods course, where PSTs were also expected to
learn more traditional concepts, approaches and strategies for teaching reading in grades 3 to 5.
This situation could complicate PSTs’ efforts to learn and enact SFL strategies. It is thus
important to investigate whether/how PSTs make sense of and take up SFL strategies in the
course. Specifically, I sought to address the following three research questions in this study:

1. What understanding about language and SFL-informed strategies do PSTs develop during
   the course?

2. What are the PSTs’ perceptions of the relevance and usefulness of the SFL-informed
   approach and strategies?

3. What factors promote or inhibit the PSTs’ understanding and use of these language-based
   strategies for the teaching of reading?

**Summary**

Chapter 2 reviewed and critiqued the literature that informs this study. I began the by
reiterating why it is important to know how to read well in today’s society. I then provided an
overview of the conceptual framework that undergirds this study. Next, I discussed how reading
is conceptualized describing several models and showed how current approaches are influenced
by interactive models. I also described weaknesses of current approaches, demonstrating why
teachers need additional approaches that are grounded in language. Finally, I described SFL, a
language based approach to teaching reading, and reviewed some of the relevant studies that
have informed the purpose and design of this study. Chapter 3 will provide details regarding the
research design that is used in this study.
Table 2-1. Common Types of School Genres (Derewianka, 1990)

<table>
<thead>
<tr>
<th>Genre</th>
<th>Purpose</th>
<th>Types/Examples</th>
<th>Organization (Stages)</th>
<th>Language Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recounts</td>
<td>To tell what happened.</td>
<td>• Personal (anecdote)</td>
<td>• Orientation</td>
<td>• Specific participants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Factual (historical recount)</td>
<td>• Series of events</td>
<td>• Use of simple past tense</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Imaginative (how I saved the world...)</td>
<td>• Personal comment</td>
<td>• Use of action verbs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Time order words (last night, then)</td>
</tr>
<tr>
<td></td>
<td>Instructions</td>
<td>• Recipes</td>
<td>• Goal</td>
<td>• Generalized nouns (the yarn, the flour)</td>
</tr>
<tr>
<td></td>
<td>To tell someone how to do or make something.</td>
<td>• How to knit a blanket</td>
<td>• Materials</td>
<td>• Reader is referred to as you</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Science experiments</td>
<td>• Procedure</td>
<td>• Time order words (first, next)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• How to assemble a bookcase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narratives</td>
<td>To entertain through stories.</td>
<td>• Fairy Tales</td>
<td>• Orientation</td>
<td>• Specific participants</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mysteries</td>
<td>• Problem</td>
<td>• Uses doing, saying, and sensing verbs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fables/Myths</td>
<td>• Solution</td>
<td>• Normally told using past tense</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tall Tales</td>
<td></td>
<td>• Often includes dialogue</td>
</tr>
<tr>
<td></td>
<td>Reports</td>
<td>Organize and report facts on a topic.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>To explain how something works or to explain a</td>
<td>• Classification (types of ….)</td>
<td>• Opening statement/opening classification</td>
<td></td>
</tr>
<tr>
<td></td>
<td>phenomenon</td>
<td>• Components (what are the parts of a</td>
<td>• Series of facts about the topic grouped by type,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TV)</td>
<td>components, or aspects</td>
<td>• Some use of action verbs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reporting the aspects of a topic</td>
<td>• Paragraphing helps to organize the facts</td>
<td>• Use of being verbs (is, are, has, have)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(size, function, behavior, system)</td>
<td>• Diagrams, photos, and illustrations can accompany text</td>
<td>• Told in timeless present tense (grow, swim)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Use of technical vocabulary</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Language used to define, compare, contrast and classify</td>
</tr>
<tr>
<td></td>
<td>Explanations</td>
<td>To explain how</td>
<td>• Statement of the phenomenon</td>
<td>• Generalized, non-human nouns (volcanoes, hurricanes)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To explain why</td>
<td>• Sequenced explanation of how or why something happens</td>
<td>• Time order words (first, then, after that, finally)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Cause-effect relationships (if/then, so, as a consequence)</td>
</tr>
<tr>
<td></td>
<td>Arguments</td>
<td>Persuasive texts</td>
<td>• Position statement</td>
<td>• Generalized participants</td>
</tr>
<tr>
<td></td>
<td>To take a position and provide reasons to</td>
<td>Discussions</td>
<td>• Argument (reasons/evidence)</td>
<td>• Variety of Verb Types</td>
</tr>
<tr>
<td></td>
<td>support</td>
<td>Challenging another’s argument</td>
<td>• Summing up the position statement</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Mainly timeless present tense</td>
</tr>
</tbody>
</table>
Clouds are tiny drops of water that form from water vapor. They collect together in the sky. Sometimes they can be fat and white, other times they are dark black and look dangerous. Clouds can all look different. This is because there are several different kinds of clouds.

The first kind of clouds are cirrus clouds. Cirrus clouds are the most common type of cloud. They are made of ice and are thin and wispy. They can also be called mare’s tails. Cirrus clouds are the highest type of cloud and can reach as high as 18,000 feet high. Cirrus clouds usually mean the weather will be nice.

The second kind of clouds are cumulus clouds. Cumulus clouds have a flat bottom and a round top. They are white and puffy and can look like a head of cauliflower or a cotton ball. They float low in the sky at about 3,000 feet. Cumulus clouds are also called fair weather clouds.

The last kind of clouds are stratus clouds. They are the lowest type of cloud. They can be low on the ground. These are the clouds that make up fog. They are gray and flat and cover the sky. Sometimes a light drizzle will fall from these clouds.

As you can see, there are different kinds of clouds that go along with different types of weather.

How is this text organized?
- Analyze patterns of Thematic progression
- Analyze process types
- Analyze cohesive devices

What is this text about? Who does what to whom, how, when, and where?
- Analyze clause participants and attributes, processes, and circumstances
- Analyze process types and participant roles
- Analyze word choice
- Analyze ellipsis
- Analyze conjunction
- Analyze nominalization

What is the author’s perspective, and how is that perspective infused into the text?
- Analyze lexical and referential chains

What information is implicit or missing from this text?

What are the key concepts or characters developed in this text?

How does the author of this text interact with the reader? How do the characters in this text interact with each other?
- Analyze speech functions and mood
- Analyze modality
CHAPTER 3
RESEARCH METHODOLOGY AND METHODS

The purpose of this dissertation is to examine how a cohort of American pre-service teachers (PSTs) made sense of a language-based pedagogy based on systemic functional linguistics (SFL) that was introduced during a required intermediate reading methods course. Specifically, I sought to answer the following three research questions: To better meet the needs of their students, PSTs must gain essential content knowledge, or knowledge for practice, including how language is employed across different types of text. In this study, I investigated how a group of PSTs learned to teach reading in the intermediate grades by using strategies grounded in SFL. The overarching research questions for this study are,

1. What understanding about language and SFL-informed strategies do PSTs develop during the course?
2. What are the PSTs’ perceptions of the relevance and usefulness of the SFL-informed approach and strategies?
3. What factors promote or inhibit their understanding and use of these language-based strategies for the teaching of reading?

The first question was designed to tap into how PSTs were gaining content knowledge by making sense of these strategies. The second question was designed to better understand if PSTs thought the strategies would be useful to them when teaching reading. Data from the last question helped me to determine what factors, both within and outside of the course, supported or inhibited PSTs sense making. Taken together, the research questions contributed to a reasonably comprehensive understanding of how this cohort of PSTs developed knowledge of SFL strategies as part of the teacher knowledge they will need upon entering the field.

Research Design

For this study, I proposed the use of a qualitative case study. I specifically chose qualitative methodology because I found this methodology was the best fit for helping me
answer my research questions. Qualitative methods provide a way for researchers to examine and understand the inner experiences of participants and how they assign meaning to these experiences while being nested within the context of the problems or questions being addressed (Corbin & Strauss, 2008; Crotty, 1998). Each of my PSTs learned differently, and qualitative methods enabled me to investigate how individual PSTs made sense of what I presented in the course.

Qualitative methods also offered me a means of documenting how my PSTs were acquiring the SFL strategies within the natural setting of a semester-long reading methods course, capturing what Miles, Huberman, and Saldaña called the participants’ “real life” (2014, p. 7). In the same manner, examination of phenomena requires detailed investigations over a period of time (Grbich, 2013). The research questions required an in-depth exploration of participants—their actions, collaborations, responses, thoughts, and questions—as they participated in my reading methods course in which SFL-informed reading strategies were embedded within course topics. I gathered data over the course of the semester to fully answer my three research questions.

A systematic analysis of how PSTs make sense of their learning experiences was important for several reasons. First, the findings from this study can help those developing new content in teacher education programs to better design curriculum that meet the needs of PSTs as they develop expand their pedagogical tools. Investigating both the successes and struggles of PSTs throughout the course can provide me with critical insights regarding how PSTs learn, embrace, and enact new pedagogical tools that enhance their literacy instruction.
Epistemology

Assumptions of Qualitative Research

There are many different approaches to qualitative research, all of them sharing characteristics such as the researcher coming into contact with participants in natural settings; gaining a holistic understanding of the social context; capturing data based on participants perceptions and experiences; determining and understand how meanings are formed through and in culture; analyzing data with words; and describing and explaining (Corbin & Strauss, 2008; Miles, Huberman, & Saldaña, 2020). Most importantly, all qualitative studies share assumptions that should be made clear to the reader.

First, reality is seen as multiple (Creswell & Poth, 2018) where both external and internal worlds are both created and recreated through interaction (Blumer, 1969). Therefore, multiple perspectives are seen as valid, and both thought and discourse are shaped and reshaped by interaction with others. The universe is seen as fluid with events being the result of multiple factors interacting in complex and unanticipated ways (Corbin & Strauss, 2008). Thus, the methodology attempting to understand and explain certain phenomena will also need to be complex.

The next assumption concerns the role of the researcher. In qualitative research, the researcher is a central figure in the data collection and analysis (Lichtman, 2013), placing themselves in the field and collecting evidence with participants (Creswell & Poth, 2018). According to Lichtman (2013), “all information is filtered through the researcher’s eyes and ears and is influenced by his or her experience, knowledge, skill, and background (p. 21). Because of this, the researcher must acknowledge that the research being conducted is value-laden (Denzin & Lincoln, 2013) and must discuss their own positionality, which includes their background,
experiences in relation to the study, how both may influence their interpretation of data in the study, and what they hope to gain from the study (Creswell & Poth, 2018).

Finally, although many believe qualitative research solely uses inductive reasoning in the analysis process, both inductive and deductive reasoning can be used in the analysis phase. Patton (1990) explains how both types of logic are utilized in qualitative studies by stating:

> The extent to which a qualitative approach is inductive or deductive varies along a continuum. As evaluation fieldwork begins, the evaluator may be open to whatever emerges from the data, a discovery, or inductive approach. Then, as the inquiry reveals patterns and major dimensions of interest, the evaluator will begin to focus on verifying elucidating what appears to be emerging – a more deductively oriented approach to data collection and analysis. (p. 274)

It is these assumptions that help to drive the design and analysis of qualitative research studies (Creswell & Poth, 2018). I purposely chose a qualitative design with the understanding that each PST comes with their own experiences, thoughts, and beliefs, and as a result, affects how they make sense of new learning. It was my hope that this diversity would elicit varied responses to the strategies that were presented to them in the course. Besides this, my own knowledge and experience as a teacher was something that I affected how I interpreted my data during the analysis process. I will discuss this in more detail later.

**Social Constructivism**

This study was also shaped by social constructivism. According to Amineh & Asl (2015), social constructivism is “a synthesis of multiple theories diffused in to one form. It is the assimilation of both behaviorist and cognitive ideals” (p. 9). Constructivism foregrounds both culture and context in the learning process. In fact, constructivism is based on three central assumptions: reality, knowledge, and learning.

First, constructivism holds the belief that reality is constructed through human activity. Reality does not wait to be discovered but is constructed by people as they interpret the situations
they experience daily (Crotty, 1998). Another assumption of constructivism is that knowledge is constructed both socially and culturally through human interaction (Ernest, 1999; Gredler, 1997; Prawat & Floden, 1994). Finally, constructivism views learning as a social process. Learning is not a passive activity within an individual, nor is it a set of behaviors that are developed passively by a set of outside forces (McMahon, 1997). Taking a constructivist stance in the learning process has direct implications for educators according to Hein (1996). First, the focus should be on the learner’s thinking during the learning process, and secondly, knowledge does not exist outside of the meaning making that is constructed by the learner, or community of learners.

Taking these assumptions into account, language plays an important role in the learning process under a social constructivist paradigm. Language is the precursor to thinking and knowledge generation (Powell & Kalina, 2009) and human consciousness is the outcropping of thought and speech (Vygotsky, 1978). The key to knowledge generation in a classroom is through language (Foucault, 1971). This means that students should be provided authentic opportunities to use language in the classroom, whether it be in written or spoken form. In fact, Powell & Kalina (2009) argue “that students should use language as much as they use oxygen” (p. 245).

Learning is much more than using language though. For understanding to occur, individuals must organize and transform their experiences into a “comprehensible, explainable form, giving it form and substance” (Lincoln & Guba, 2013, p.45). Therefore, when an individual constructs meaning, learning occurs. Under a constructivist paradigm, knowledge is the product of a person’s meaning making, resulting in a construct or construction. The more advanced one’s knowledge becomes, the more informed and sophisticated the reconstructions
become, oftentimes resulting in the learner developing new concepts and principles based on their life experiences (Beck & Kosnik, 2006; Lincoln & Guba, 2013). As constructions are shared within larger social and cultural groups, they are continually reconstructed until a general consensus is reached (Ernest, 1998; Gredler, 1997; Kim, 2010; Lincoln & Guba, 2013; Prawat & Floden, 1994).

Constructivist principles were germane to the efforts of uncovering the answers to this study’s research questions. A constructivist stance claims that meaning is constructed through language and that language is the antecedent of thought and knowledge construction. Therefore, meaning making is a process. To understand more about the learning process my PSTs engaged in, the study was specifically designed to include both social interaction as well as time for individual reflection using this paradigm. PSTs engaged in discourse and reflective literacy assignments to make meaning which connected with what Vygotsky (1978) describes as the interpsychological plane (between others) and the intrapsychological plane (the individual). Different forms of data collection were planned to capture PSTs meaning making from both vantage points. Collaborative work encouraged my PSTs to share their experiences and ideas, give input, and discuss and reflect on their colleagues’ contributions. Learning responses offered my PSTs time to reflect on their reading, class lectures and group activities. This reflection allowed PSTs to restructure and transform their experiences into a more comprehensible understanding of their learning.

**Case Study Design**

A case study is designed to answer “how” and “why” research questions, although “what” questions can also be included if the study is more exploratory in nature (Yin, 2018, pp. 9-10). Case studies also examine “how a phenomenon is influenced by the context within which it is situated” (Baxter & Jack, 2008, p. 556).
My research questions focused on PSTs’ understanding about language, perceptions about approach and strategies, and what facilitated or inhibited the development of understanding, so case study methodology was a good fit for probing into their sense making, perceptions, and knowledge construction.

A case study allows for “an in-depth focus on a single issue, or “case” while retaining a holistic real-world perspective” (Yin, 2018, p. 5). They must also be bounded, or to borrow from Thomas (2015), defined “by the edges you put around the case” (p. 21). This case study was bounded by time, place, and participants. The specifics of how this case study is bounded will be explained in detail later.

For this study, I chose to use a single, instrumental, embedded, case study methodology. A single embedded case study involves units of analysis at more than one level which allows the researcher to look at sub-units situated within the case (Baxter & Jack, 2008; Yin, 2018). For this case study, using an embedded design allowed me to analyze each individual PST’s data (first level). After doing this for each of the five PSTs chosen for this study, I was then able to look for patterns across the five PSTs (second level). I will explain the process of analysis in more detail later.

Case study methodology also seeks to understand the important contextual conditions involved in a real-world case (Yin, 2018) which can make the boundaries between phenomenon and context blurred. The context of the study was important to document because there are contextual factors that undoubtedly affected how my PSTs understood the strategies. I will discuss these factors more specifically later. As I went through the data analysis process, I reflected on what factors either helped or hindered what my PSTs were striving to understand.
Additionally, I specifically chose case study methodology because it afforded me with opportunities for insight, discovery, and interpretation (Merriam, 1998). No two PSTs are the same, and how they develop their knowledge for practice depends on factors such as life experiences, their experiences as students, the content knowledge learned in textbooks, articles, and lectures, and internship experiences. These factors yielded different interpretations and understandings, which made the case study design the most appropriate method to answer this study’s research questions. Furthermore, Yin (2018) has explained “the case study’s unique strength is its ability to deal with a full variety of evidence” (p. 12). Data were collected in various forms such as classroom work samples, exit tickets, a summative reflection, and semi-structured interviews. The various forms of data helped me to gain important insights into their understandings, interpretations, and what factors served as facilitators or obstacles to their understanding.

I knew that in selecting to use qualitative case methodology, specifically, a case study, that this study would not be considered generalizable. Yet, Gerring (2004) argues that “a case study is best defined as an intensive study of a single unit with an aim to generalize across a larger set of units” (p. 341). Teaching SFL-informed reading strategies is a relatively new approach used with PSTs in the United States. Therefore, this study will add to the small, yet growing literature base by providing crucial insights into how American PSTs make sense of these strategies, whether they find them to be useful, and what they feel are factors that promote or hinder their understanding of these strategies. As more studies emerge investigating SFL strategies taught to PSTs, this study can be part of the literature where similar findings can be seen across studies.
Context of the Study

In this section, I will discuss the context as it pertains to the program, setting, and participant selection.

Program Overview

The university program that the participants in this study were enrolled in was a five-year teacher preparation program. Students in the program graduate with a bachelor’s degree in elementary education upon the completion of their fourth year. Then they complete a fifth year of coursework while student teaching, ultimately graduating with a master’s degree. At the time of this study, participants were first-semester seniors. All students had previously taken literacy courses such as children’s literature and the elementary reading methods course for grades K-2. During the semester in which this study took place, participants took a language arts methods class concurrently with this reading methods course that focused on teaching reading in grades 3-5. The course modules in this reading methods course were originally created to meet the state’s reading competencies for teacher licensure. Because I was operating within the parameters of the established curriculum, I introduced SFL strategies that I felt best fit the weekly topics.

Research Setting

The course that was the focus of this study was an elementary reading methods course offered by a large, publicly funded, university in the southeastern United States. This 3-credit hour course was a requirement for students to graduate with their bachelor’s degree in elementary education and was the second in a series of two foundational reading courses that PSTs received. The first foundational class, which participants took the semester prior to this class, was a primary reading (K-2) methods class that focused on the teaching of reading using the five components of literacy (phonological/phonemic awareness, phonics, fluency,
vocabulary, and comprehension) or the Fab Five. Most of the required reading for the K-2 class came from *Teaching Reading Sourcebook* by Honig, Diamond, and Gutlohn (2008) and *Words Their Way* by Bear, Invernizzi, Templeton, and Johnson (2020). During this primary reading course, students also learned reading recovery pedagogy and were supposed to complete daily tutoring with a student in their practicum placements utilizing materials provided by the program. Because of the coronavirus pandemic, however, the previous semester’s face-to-face field placements for the spring semester of 2020 were discontinued. As a result, the reading recovery tutoring was moved to the fall semester, when PSTs took the second reading methods course, which focused on teaching reading in intermediate grades (third through fifth).

The semester in which this study took place (Fall, 2020) was far from ordinary. Due to the coronavirus global pandemic and the need for our class to socially distance ourselves, each class session took place synchronously over Zoom. We met together weekly for a three-hour period. Students were able to access all assignments and class activities electronically on our Canvas class shell. All students were required to keep their cameras on during class sessions to encourage active participation. Additionally, class sessions were recorded on Zoom and could be accessed by students if they needed to refer back to a class lecture. PSTs were able to collaborate in small groups through break-out rooms on Zoom and could work collaboratively in group activities either through Canvas or Google Docs.

The intermediate reading course focused on comprehension and the factors that can contribute or impede comprehension in content areas, such as text structure, genre, and higher order thinking. Other important concepts covered in this class were fluency, structural analysis and word identification, vocabulary instruction, content area literacy instruction, creating thematic units, using assessments such as running records, and using best practices. Best
practices are research based practices that are shown to promote high rates of reading achievement (Gambrell et al., 2011). Such practices include teaching reading for authentic purposes, creating a classroom culture that promotes literacy motivation, allowing time for independent reading, and differentiating instruction based on a variety of assessments. This intermediate reading course utilized the same textbooks from the previous semester but also included *Comprehension First* by Cornett (2017) and several other supplemental articles.

**Participant Selection**

Participant selection was primarily based on interest (Strauss & Corbin, 1998) due to students’ increased workload with tutoring and the use of an online format because of COVID-19. I designed the study so that SFL strategies would be an embedded part of the course. Therefore, during the semester, I treated every student in the two sections of the course as a potential participant (n= 22, n =24). At the beginning of the semester, as we reviewed the syllabus, I explained to my students that we would be learning SFL strategies as part of the study, that these strategies would help prepare them to teach reading for intermediate grades, and more information would be coming at the end of the semester.

Assignments related to the study that were given throughout the semester were used as extra credit. My reasoning behind this was to motivate PSTs to try the strategies with an open mind and not view them as one more thing added to an already full semester and schedule. I also used students’ artifacts to theoretically sample who I might choose to interview after the conclusion of the semester. According to Cleary et al. (2014), “Theoretical sampling involves strategically selecting participants whose views and experiences add meaning to, illuminate, and in some cases, explain the phenomenon under study” (p. 947). Purposeful and theoretical sampling are similar in that they both use criteria to select participants who will bring about information rich cases in which the researcher can learn a great deal about the central issues in
relation to the research (Patton, 1990). In purposeful sampling, however, the researcher selects participants according to the aims of the study, while theoretical sampling “is rooted in data collected, the questions that data have given rise to, and the dimensions and contexts that the researcher has pursued to gain a fuller understanding of the process under study” (Conlon et al., 2020, p. 955). My intention was to find participants who exhibited a wide range of understanding of the SFL strategies as well as those possessing different dispositions toward the strategies. To do this, I created an electronic folder on my computer for each class, and within each class folder, I created a folder for each student. All data was password protected. As the semester progressed, I would download student work in their respective folders.

I did not seek participants for the study until the last day of class. At the conclusion of the session, I shared the consent letter with the class. I explained that most of the work had already been completed as part of the course, and I was seeking willing participants to conduct interviews so I could better understand what they took away from each strategy and what factors they felt influenced and hindered their understanding. I had created an assignment in Canvas, where students could download the consent letter, and they were given one week to consider whether they wanted to participate in the study. Interested students signed and uploaded the consent letter to Canvas.

At the conclusion of the semester, I collected the consent forms. Eight students from both sections of the class expressed interest. I went back to the data I had collected during the semester to determine who I might choose to interview. I reviewed what students wrote about their understanding of each strategy by reading their exit tickets as well as their overall thoughts about the strategies included in their summative reflections. As I reviewed each artifact, I took detailed notes. The five participants I chose represented various levels of understanding and
feelings toward the strategies. I believed these five participants would help reveal the most complete understanding of the case.

Participants

Many of the participants share common characteristics. They are all Caucasian females in their early twenties. Below is a synopsis of each participant that illustrates how many of their early literacy experiences were similar, but also highlights the unique schooling experiences, particularly in grammar, that they each had as students. All names are, of course, pseudonyms.

Lily, a confident young woman who isn’t afraid of sharing her opinion, has wanted to be a teacher since she could first remember. She distinctly remembers a sign hanging in her Pre-K classroom saying, “When I grow up, I want to be. . . ,” which she says she would always proudly complete with “a teacher”. Her first memories include her parents taking her to the bookstore and reading to her. She fondly recalls the private school she went to, and how, ironically, she was labeled an at-risk reader in the first grade. Despite this, Lily never embraced that label and credits her reading intervention teacher as the one to introduce her to *The Magic Tree House* books, which ignited her love for reading. Lily has a strong identity as a reader, saying that reading and spelling were never a problem for her since she has always been an avid reader. Lily’s memories of grammar instruction as a student are vague, only remembering learning a few skills such as synonyms and homophones in elementary school, and something that sounded like sentence diagramming in middle school.

Harriet, an outgoing and enthusiastic student, explained how both her grandmother and mother were teachers. Part of the reason Harriet became a teacher is because she saw how her mother made relationships with her students and how she made a difference in her student’s lives. Much like Lily, Harriet’s parents encouraged her literacy development from a young age. Harriet shared with me that her nursery contained a huge Dr. Seuss mural that contained a sign
with her name on it and the room was filled with Dr. Seuss books, which she recalls loving. A competitive girl, Harriet shared with me that she can’t remember a time when she couldn’t read. While in second grade, Harriet remembers her older sister reading *Harry Potter* books, so she challenged herself to read them as well. Harriet said, “I wanted to be the kid in school with the most AR (Accelerated Reader) points.” In terms of grammar instruction she recalls having to do Daily Oral Language, which she said, “everyone dreaded doing” and in middle school learning about the parts of speech, how to deconstruct sentences, and learning about referring words similarly to what we covered in strategy three in this study.

Mary, a quiet, yet thoughtful student, never had family members who were teachers but remembers teaching Spanish to elementary school students in high school. She also told me that she worked with a fifth-grade Sunday school class at her church, and as a child always loved playing school, where she was the teacher. Mary remembers always loving to read. As a young child, her parents always had books in the house and read to her frequently. An avid reader of fantasy and adventure genres, she remembers Sustained Silent Reading being one of her favorite times during the school day. Mary remembers her grammar instruction in elementary school consisting of many worksheets, including, “fix the sentence” and cloze types of activities, with grammar instruction ending by the sixth grade.

Olivia never had younger siblings and envied her friends that did because she’s always loved working with younger children. In her interview, Olivia shared that she’s always loved school, so combining her love of working with younger students in a school setting made becoming a teacher an obvious choice. She reported that she has remembered every name of each teacher that had a positive impact on her, and declared, “I think I just want to be that for
someone else.” In fact, Olivia also recalls how her preschool teacher, Miss Linda, helped her with her own literacy development, saying,

I’m left handed, so when I started to learn how to write with the pre reading and writing processes, I wrote everything mirrored (backwards). I think when I started to learn how to read I was having trouble with that because of my left hand. I don’t understand why, but we have samples of my writing where everything is backwards. I know she helped me with that and I think that led into reading skills.

One of the reasons I selected Olivia for this study is because of her proclivity for language. Having a voracious appetite for Scrabble© and other word games, she frequently plays with her father. In terms of grammar instruction, she remembers that in elementary school, she learned the parts of speech, and the patterns of how they fit into sentences. She also recalls a shift in grammar instruction in sixth grade where the focus was on grammar and syntax, but she also said that instruction was very rushed, and was composed of “bell work” types of activities lasting about ten minutes.

I don’t think the instruction was direct at all. I think that it was a part that they tried to incorporate but they didn’t think of it as important and you could tell that they didn’t value it because there was not time to put into it whatsoever. If it was emphasized, I would have much better grammar skills.

My final participant was Ann. Although her mother is a teacher, she never considered the profession when she was younger. Originally going to school to become a physical therapist (PT), she soon found out, she didn’t like it. She didn’t know what she might do as an alternative to PT but knew she liked working with kids. Ann explained that through prayer she arrived at the decision to pursue teaching. Surprisingly, her mother was worried about her decision, because she knew how stressful the profession is, although time and Ann’s enthusiasm for what she is learning have helped things fall into place and her mother now sees that teaching is a good fit for her.
Ann has a strong identity as a reader, sharing that she has always loved to read. In elementary school, she remembers working through the Science Research Associates (SRA) reading program, which consists of a colored leveling system, and as an adult pursues reading in her spare time. Ann has very fond memories of learning to read in school. A family friend provided day care for her and taught her to read at an early age. Her first-grade teacher, Miss Abbot, utilized many centers, which Ann said really helped her to fall in love with reading. She vaguely recalls grammar instruction in elementary school, remembering the series of posters with grammar rules hanging on the walls. Yet, she says that she still does not understand why things are the way they are with language and does not remember learning any grammatical types of vocabulary such as noun phrase, or independent clause.

Each participant came to me with varied life experiences, both in and out of school that have influenced what they believe about literacy instruction, in addition to how they learned grammar and language and better illuminates the knowledge they had before even enrolling in this reading methods course. Each of my PSTs seemed to be called to the teaching field through family or through personal experience working with students. They all love reading and have strong identities as readers. Despite these similarities, their experiences with grammar instruction and language were very different. For example, some of them only have vague recollections of being taught grammar in school, some dreaded learning grammar, and some, such as Olivia are fascinated with language. It was these differences that intrigued me about how whether their different attitudes towards grammar might affect their understanding.

**Instructional Design**

Because of the COVID-19 pandemic, the usual fifteen week semester was cut to thirteen weeks. I knew my PSTs would experience increased stress during the semester because of the shorter class length, increased tutoring responsibilities, and having all their classes on Zoom. I
also knew the SFL strategies would be brand new content for my PSTs. Therefore, I made the decision to not teach a strategy each week. It was my desire for my PSTs to see that SFL strategies were a way to authentically and organically teach grammar within the context of reading instruction and not seen as just something to be implemented if they had time. Consequently, I specifically included six SFL strategies to teach my PSTs throughout the course (Table 3-1). Most SFL strategies meshed well with the already established weekly topics. The content of the course could not be altered much because the PSTs needed to meet the educational competencies required by the state for licensing purposes. Below is a description of the process I followed in each lesson when teaching and SFL strategy.

**Elements of Effective Instruction**

Using a social constructivist framework for this study meant the learning environment of our class needed to be active and provide opportunities for my PSTs to use language with their peers. To increase the prospect of student success in learning the strategies, I implemented the gradual release of responsibility framework (Pearson & Gallagher, 1983).

There has been a great deal of research on the gradual release of responsibility model (Clark & Graves, 2005; Duke & Pearson, 2002; Gersten & Carnine, 1986; Pearson & Gallagher, 1983). Using this framework as part of my pedagogy allowed me to scaffold learning experiences for my PSTs. Wood, Bruner, and Ross (1976) define scaffolding as a “process that enables a child or a novice to solve a problem, carry out a task, or achieve a goal that would be beyond their unassisted efforts” (p. 90). The types of scaffolding I had planned for as I taught using the gradual release model included modeling, guided practice, a PowerPoint presentation for each strategy for my PSTs to reference, activity worksheets and tables to practice each strategy, and group work. My intention with implementing scaffolding in lessons was to have it
serve as the vehicle that would help my PSTs further their understanding of SFL strategies through the Zone of Proximal Development (Vygotsky, 1978).

The Zone of Proximal Development (ZPD) is the seminal learning theory developed by renowned linguist Lev Vygotsky. Simply put, a learner’s ZPD is the distance between an individual’s independent learning level and what they can potentially accomplish with guidance from a more capable peer or adult. Scaffolding is an effective part of instructional pedagogy as it allows the teacher to give instruction on an entire concept while allowing students the space to understand the different parts of the task, all the while offering the appropriate amount of challenge for students (Clark & Graves, 2005). Because there are slight differences in models depending on the researcher, I feel compelled to state that I used the model as described in Pearson and Gallagher (1983) with one slight modification. The model itself consists of five components which I used during instruction: (a) an explicit description of the concept or strategy and how it should be used, (b) teacher modeling of the concept or strategy, (c) collaborative use of the strategy or concept, (d) guiding practice of the strategy or concept with gradual release of the strategy to the student, and (e) independent practice of the strategy. The modification I made to this framework was that I did not include the independent practice portion. Instead, my PSTs worked together in small groups. I felt that with the limited amount of time we had to learn each strategy, that group work would be the best vehicle used to aid in their understanding.

**Overview of Each Session**

Here I outline each strategy and the steps I took to teach it. Table 3-2 shows each strategy and a brief summary of each strategy. Before teaching the strategies I provided background on SFL theory such as how people make three different types of meaning simultaneously when communicating and the metalanguage of participants, processes, and circumstances. I anticipated that this background would help them to better understand each strategy.
Strategy One – Using Verbs to Make Inferences

In strategy one, participants learned about the four different process (verb) types, BEING, SENSING, DOING, and SAYING. I taught PSTs how authors use these verbs to show or tell a character’s feelings. Take for example, the following two sentences:

- Mark WAS angry.
- Mark THREW the door open, FLUNG his backpack on the floor, and STOMPED upstairs.

The first sentence is straightforward, telling the character’s feelings through the use of the being verb WAS. The second sentence, however, shows the character’s feelings through the use of the action verbs THREW, FLUNG, and STOMPED. Since the second implies what the character feels, an inference must be made. This is not always obvious for students and must be explicitly taught by teachers.

I started the lesson with a PowerPoint presentation to give my PSTs the necessary background knowledge. I then worked through the strategy using the gradual release of responsibility model. I began by modeling, using a text excerpt from the popular young adult chapter book *The Liberation of Gabriel King* by K. L. Going, and I used a table in which different types of information are presented (Figure 3-1). I modeled my thinking about which verb types outright told the character’s feelings (directly) and which verbs showed their feelings (indirectly). For verb types that showed the character’s feelings, I then modeled how I would make an inference about the character’s feelings.

As I went through the text, I gradually solicited help from PSTs to help me complete the table. Then, groups of PSTs downloaded a new text excerpt from our Canvas course shell and practiced the strategy by completing the table together using a Google Doc. After finishing the work, the groups completed an exit ticket on the Google Doc that asked them what they learned,
what their thoughts and feelings were regarding the strategy, and if anything was easy or difficult for them during the process of learning about this strategy.

**Strategy Two – Using Appraisal Resources to Create Dynamic Characters**

In strategy two, we dove deeper into comprehension instruction and how authors create dynamic characters by using language that can influence how each character is interpreted by the reader. This strategy is important to learn for two reasons. First, it addresses a skill that is commonly taught in intermediate classrooms: character traits. Learning about character traits addresses state standards about key ideas and details in the text. Secondly, the skill addresses the author’s craft and structure standards about what resources authors use to create characters.

We started the lesson with another PowerPoint I had created that implemented the work from Derewianka’s (2015) chapter on expressing attitudes and feelings, evaluating the quality of
things, and judging human behavior. Then, I modeled using the strategy by finding key words and phrases in a text that helped me analyze a particular character. As I modeled, I looked for different parts of speech that would tell me about different aspect of the character. For example, in the popular book *James and the Giant Peach*, Dahl uses the following to build up the character of Aunt Sponge:

As I modeled I looked for nouns, verbs, adjectives, and adverbs to describe what the characters look like, words that show the author’s judgement of the character, words that describe a character’s actions, and words that captured a character’s thoughts and what they say. For example, in the popular book *James and the Giant Peach*, Dahl uses the following to build up the character of Aunt Sponge:

Aunt Sponge was enormously fat and very short. She had small piggy eyes, a sunken mouth and one of those white flabby faces that looked exactly as thought it had been boiled. She was like a great white soggy overboiled cabbage. Every now and again she screamed at James to chop faster and faster. (Dahl, 1961, pp. 5-6)

The phrases ENORMOUSLY FAT AND VERY SHORT, SMALL PIGGY EYES, A SUNKEN MOUTH, and LIKE A GREAT WHITE SOGGY OVERBOILED CABBAGE consists of nouns and adjectives that show me Aunt Sponge’s qualities. Additionally, if we look a bit further into the text, more is revealed about Aunt Sponge through what she says:

Great tears began oozing out of James’s eyes and rolling down his cheeks. He stopped working and leaned against the chopping block, overwhelmed by his own unhappiness.

“What’s the matter with you?” Aunt Spiker screeched, glaring at him over the top of her spectacles.

James began to cry.

“Stop that immediately and get on with your work, you nasty little beast!” Aunt Sponge ordered.
“Oh Auntie Sponge!” James cried out. “And Auntie Spiker! Couldn’t we all – please – just for once – go down to the seaside on the bus? It isn’t very far – and I feel so hot and awful and lonely…”

“Why, you lazy good-for-nothing brute!” Aunt Spiker shouted.

“Beat him!” cried Aunt Sponge.

Much is implied about what kind of character Aunt Sponge is through what she says. She screeches at James and gives him orders. She also cries that he should be beaten. It can be inferred from what Aunt Sponge says that she is a nasty person.

After modeling how to analyze the language in text like in the examples above, my PSTs and I continued to analyze language about Aunt Sponge in the text excerpt, recording the examples in our table (Figure 3-2).

<table>
<thead>
<tr>
<th>Words and Phrases to Describe What She Looks Like</th>
<th>Parts of Speech Used</th>
<th>Author's Words that Express the Quality of a Character (Author's Judgement)</th>
<th>Part of Speech Used</th>
<th>Words and Phrases that Describe Her Actions</th>
<th>Part of Speech Used</th>
<th>Words and Phrases That Describe Her Thoughts and What She Says</th>
<th>Part of Speech Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>was enormously fat and very short</td>
<td>Adjectives</td>
<td>these two ghastly bags</td>
<td>Adjectives and nouns</td>
<td>sipping their drinks</td>
<td>Verb</td>
<td>&quot;Beat him!&quot; cried Aunt Sponge</td>
<td>Verb</td>
</tr>
<tr>
<td>small piggy eyes,</td>
<td>Adjectives nouns</td>
<td>gazing at her own hideous face</td>
<td>Adjectives and nouns</td>
<td>screaming at James</td>
<td>Verb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a tucked mouth</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>white flabby faces</td>
<td>Adjectives and nouns</td>
<td></td>
<td></td>
<td>talked about themselves</td>
<td>Verb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>great white overboiled cabbage</td>
<td>Adjectives and nouns</td>
<td></td>
<td></td>
<td>saying how beautiful she thought she was.</td>
<td>Verb</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3-2. Modeling and Guided Practice of Strategy Two

Then, each group was assigned their own text excerpt and worked together. Every PST had access to the activity on their own computer through a Google Doc. Group leaders were able to share their screen with their groups in a breakout room and groups worked to find key words
and phrases, assign character traits to their character, and tell me what they thought about each character, using character traits to describe their assigned character. After completing the activity, groups filled out an exit ticket, explaining what they learned, how they felt about the strategy, and anything that was either easy or difficult to grasp in the learning process.

**Strategy Three – Referring Words and Cohesive Texts**

In this class session, I introduced the PSTs to some of the different devices authors use to stitch texts together, making them both cohesive and coherent. Specifically, this lesson focused on how nouns in a text can be referred to using pronouns, including demonstratives (e.g., this, that, and those), and a synonym for the original noun it refers to. During the PowerPoint presentation, I explained that student comprehension problems can arise because students have a difficult time connecting different pronouns to different participants (nouns). Additionally, comprehension problems arise because students do not understand that the original noun can be replaced with a synonym that has determiners preceding it. Indeed, students may think the author is discussing two separate nouns. This strategy explicitly showed PSTs how to teach these language features to students to help improve reading comprehension. Because we had already learned two strategies that utilized narrative text, I chose informational texts for this strategy because these types of texts are quite prevalent in the intermediate grades.

The group activity included a text in either social studies or science and an annotation guide. Because groups would be working on Zoom and the shapes tools couldn’t be accessed on Google Docs, I took a screenshot of each page in the text, copying it into a Word document so PSTs would be able to use the shapes tools to annotate the text. Since we could not meet face to face, the annotation guide served as a guide for what I would usually say orally to a class of students during a close reading of the text. Using the example from the text *Jazz, Jazz, Jazz*
(Figure 3-3) by Sharon Franklin (2005), I would read the tasks on the annotation guide while I modeled. One such task stated:

Turn to pages 4-5. Underline 125th Street. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to 125th Street.

Figure 3-3. The Text I Modeled for Strategy Three

Figure 3-3 shows my modeling, underlining 125th Street, then drawing arrows from words that referred back to 125th Street, such as THE STREET, ROUND THE CORNER, (round the corner from where? - 125th Street), THIS IS HARLEM (where is Harlem located near - 125th Street), and THIS NEIGHBORHOOD (Where is this neighborhood - in Harlem. Where is Harlem located near - 125th Street). After modeling and completing some guided practice, I divided my PSTs into groups.
where they completed the activity using a new text. Finally, they completed their exit ticket regarding their feelings about the strategy, what they learned, and if they found anything to be easy, difficult, or surprising about the strategy.

**Strategy Four – Phrasal Chunking, Fluency, and Comprehension**

In strategy four, I showed PSTs how to break down text into meaningful chunks to teach fluency and comprehension. There is a strong focus on reading fluency in American classrooms, with fluency standards documented in many states. I chose to show this strategy to my PSTs so they would be able to explicitly teach phrasal chunking and improve their students’ reading fluency.

For instance, Figure 3-4 shows how a text might be chunked for a disfluent reader.

![Figure 3-4. Chunking the Text to Help Disfluent Readers](image)

As the figure shows, chunking also helps students improve comprehension because each chunk answers a WH- question. For example, the question ‘Where were wolves being wiped out
from?’, could be recovered by reading the second chunk in the figure. Likewise, the question, ‘Why did wolves eat animals that were weaker than themselves?’, could be found by reading the last chunk of graphic 3-4. By chunking the text this way, students can easily see how chunks fit together to make meaning.

Similarly, students can be great decoders put poor comprehenders. Figure 3-5 shows how a text might be chunked to help a student like this. As the figure shows, the text can be broken down into larger phrases and clauses, which can help students read fluently. At the same time, chunking the text also shows these poor comprehenders how larger phrases and clauses can be broken down to answer WH questions, thus helping the student to better comprehend the text.

Finally, I wanted PSTs to see the strong connection between fluency and comprehension. Fluency is more than just reading quickly; the reader must first comprehend each portion of text (phrase, clause, sentence) then make connections between the different portions to understand
the text’s meaning as a whole. For example, Figure 3-6 comes from the Reading Street © fifth-grade, small group reader *The Golden Journey* by Rena Korb and shows how clauses and sentences connect to each other across the text. The prepositional phrase in the second paragraph, **Since Pa’s big announcement**, connects back to the first two sentences in the first paragraph, **Pa came home with news today, He said we are going to move to California.** The main clause **Ma shed more tears** connects with the dependent clause **as she gathered her pewter bowls and plates to sell,** showing that the two events are happening simultaneously. Finally, the main clause **Susannah jointed in shedding tears** connects back to the clause **Ma shed more than a few tears** to show that both Susannah and Ma were crying. This example shows how students must first learn to read and understand smaller clauses and sentences fluently, then be able to understand how these smaller pieces fit together to make meaning.

January 16, 1849: Pa came home with news today. He said we are going to move to California. He said gold was everywhere, even in the streets! Ten-year-old boys like me can dig for gold. I think it sounds like a grand adventure, but Ma and Susannah looked a little scared. This means we are probably leaving Macon, Missouri forever.

Since Pa’s big announcement, the whole family has been hard at work. Ma and Pa sold the farm, and nearly all our possessions. Ma shed more than a few tears as she gathered her pewter bowls and plates to sell. They wouldn’t fit in the wagon. Susannah joined in shedding tears as she had to decide which of her dolls to leave behind.

‘as’ signals how these two actions happen simultaneously

**Figure 3-6. An Example of How Chunks of Text Are Connected**

After my PowerPoint presentation, I shared a set of fictitious student data. Using a small group reader, I modeled how I would help the student break up the text into meaningful chunks. After modeling several sentences, I asked PSTs to help me chunk the text. Next, I modeled the
second step in the strategy by connecting each chunk to a WH questions. Once PSTs had seen me do a few, they helped me to ask questions. Finally, I modeled how I analyzed my students answers to questions. I showed PSTs how different chunks related to each other like the examples in Figure 3-6. After I had analyzed a few questions. I asked PSTs to help me analyze answers. After modeling and guided practice, students divided into groups to work together on the different steps using a new set of fictitious student data. Finally, groups completed an exit ticket about their learning and feelings toward that day’s strategy.

**Strategy Five – Nominalizations in Informational Texts**

The focus of strategy five was to teach PSTs how authors create science registers that are simultaneously dense, technical, and abstract through the use of nominalizations. Nominalizations are verbs or adjectives that are transformed into the form of a noun so authors can turn processes into entities and in so doing buries agency and at the same time facilitates discursive flow. According to Fang (2010), “Nominalizations are often used to synthesize a chunk of prior text in order to create new technical terms or virtual entities for further discussion and to facilitate the flow of information presentation” (p. 68). Through nominalization, agency is sometimes elided to give prominence to ideas/concepts. This is the background information I included in the PowerPoint at the beginning of the lesson. This poses comprehension problems for students because the agents, or those responsible for enacting the events in the text, disappear. Hence, the need for the strategy.

One way to help students untangle the language features found in dense science text is to conduct a close reading of the text, translating abstract language like nominalization back into more understandable, spoken language, and then thinking about who might be exhibiting agency within the text. This was the activity I chose to focus on with my PSTs.
After completing the PowerPoint presentation, I displayed a text excerpt about food security from a middle school science textbook (Miller & Spoolman, 2009). The text was placed into a larger table which consisted of four columns. The first column contained the text, the second column contained space to paraphrase or translate the text, the third column asked to identify a verb or adjective that expressed a process or a quality from the paraphrased text, and the fourth column asked if an actor or carrier could be added to the paraphrase. Figure 3-7 shows how I modeled finding the nominalization for the term “food security”. As I read the text, I highlighted the term “food security.” I then thought aloud about how I could translate the term into a form more consistent with spoken speech. My translation can be seen in the second column. I then proceeded to column three, where I needed to identify if there was a verb or adjective in my paraphrase. I was able to identify the verbs “find and pay.” This told me that the term FOOD SECURITY was a nominalization. Finally, column four asked if I could add an actor for the two verbs. I determined I could say PEOPLE enjoyed being able to find and pay for food. I then added this change from my original paraphrase in column two.

<table>
<thead>
<tr>
<th>Text Excerpt</th>
<th>Paraphrase/ Translation</th>
<th>Is There a Verb or Adjective?</th>
<th>Can you add a actor of the action? (Or carrier of the attribute?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In a country that enjoys food security, all or most of the people in the country have daily access to enough nutritious food to live active and healthy lives. Today, we produce more than enough food to meet the basic nutritional needs of every person on the earth.</td>
<td>In a country that enjoys being able to find and pay for food.</td>
<td>find and pay</td>
<td>In a country where people enjoy being able to find and pay for food.</td>
</tr>
</tbody>
</table>

Figure 3-7. The Activity I Modeled for Strategy Five

**Strategy Six – Long Noun Phrases in Informational Texts**

Strategy 6 built on the PST’s understanding of text density by addressing long noun phrases. For this session, the PowerPoint addressed the concept of density and the understanding
that authors exploit the use of long noun phrases to expand information at the clause level. This allows authors to be precise and compact in their use of language.

One way to help students become adept at recognizing noun phrases and noting how information is packed into them is to have them engage in a noun deconstruction activity (Fang 2008; Unsworth, 2005). Strategy six can help students break down and better understand clauses in expository text by learning to identify and deconstruct long noun phrases within the text.

After providing instruction using the PowerPoint and noun scheme (Table 3-3) found in Fang, Gresser, and Cao (2021), I told PSTs that authors often capitalize on noun phrases because they can be expanded upon almost indefinitely, which helps them to achieve informativity. However, this way of expanding information can be more challenging for students to process. Consequently, this strategy can help students dissect text so they can better comprehend.

During the presentation, we examined the different constituents that can serve as both pre- and post-modifiers for the head noun, or the main noun in the noun phrase. After learning about these different components, I modeled how to read and deconstruct a short text written by a middle school student about alligators using a table (Figure 3-8).

Crocodiles are one of the most interesting animals. They have lived for millions of years, even since the time of dinosaurs. These wondrous creatures can grow to be huge. It does take something for them to grow to be big through. As babies they are hatched out of a tiny egg.

- **Head noun**
- **Pre-modifiers**
- **Post-modifiers**

Figure 3-8. Deconstructing the Text
I then showed PSTs how to classify the different parts of a noun phrase into a table (Figure 3-9). This table showed point values for different constituents, meaning some pre- and post-modifiers were worth more points than others. Once I had modeled the deconstruction and classifying of my own text and involving PSTs in helping me to deconstruct and analyze my text (Figure 3-8, Figure 3-9) through guided practice, PSTs then broke into groups to deconstruct a similar text on alligators, using the noun scheme (Table 3-3) to refer to. Once PSTs had time to work on deconstructing their text, they then completed their exit ticket, just as they did for the other strategies, regarding what they learned, how they felt about the strategy, and what they felt they did well and what they struggled with.

**Data Collection**

An inherent quality of qualitative research is the collection of data in the form of words (Miles et al., 2020) with the researcher being the primary instrument of data collection and analysis (Lichtman, 2013). In this study, data collected included group activities, exit tickets, a summative reflection, and one semi-structured interview for each PST. The analysis of various forms of data allowed me to better understand the participants’ thoughts and perspectives as I sought to answer my research questions.
Student Work

Upon graduation, my PSTs will be required to work closely with their colleagues. In many schools today, teachers participate in Professional Learning Communities (PLCs), which can be defined as professional educators working purposefully and collectively to interrogate and reflect on their practice to improve both student achievement and teacher learning (Huffman, 2011; Stoll et al., 2006). To better prepare my PSTs to work in PLCs and examine their own learning, PSTs worked along with me during the guided practice portions of each activity, then worked in small groups to complete the modified independent practice portion of the strategy. Just as teachers assess student work, I assessed each group’s work for correctness. Each of the pieces of work allowed me to see how PSTs were making sense of each strategy. Because I designed and delivered the instruction, I was also able to infer from these data what factors helped or inhibited their understanding.

Exit Tickets

One critical form of data I planned for were exit tickets. Exit tickets are short responses that students complete after a lesson. Exit tickets are beneficial for teachers to use when asking students about their understanding of a concept, how their experiences outside class relate to the skill learned and help inform teachers next instructional steps, and whether they need to reteach a concept, restructure activities, offer students more practice, or move on to a new concept (Fowler et al., 2019; Marshall, 2018). Some researchers, such as Leigh (2012) believed that for college students, exit tickets represent rituals for thinking that can keep a thinking pulse in the classroom and “can invite students and by proxy, the teacher, to become active, critical listeners to discussion and, as a result, more reflective thinkers” (p. 189). It has been well established that reflection on learning experiences is critical for PSTs to construct meaning, build and extend their knowledge, and broaden their perspectives by challenging the status quo in education.
(Dewey, 1904, 1938; McGarr & Moody, 2010). In fact, several researchers argued that without reflection, PSTs will not change and for shifts to occur PSTs must be given authentic opportunities to reflect on their personal experiences, using this knowledge to develop professional knowledge (Fund, 2010; Moon, 1999). Therefore, when thinking about the design of this study, it was important for me to offer this time to reflect on the strategies while each of my PSTs developed their professional knowledge as a reading teacher. After groups completed each activity for the different strategies, they reflected and reported what they learned from the strategy, what their thoughts were about learning the strategy, and what they found to be easily understood as well as difficult to understand. These reflections allowed me to see the diverse level of understanding across groups as well as the variety of feelings and beliefs about each strategy.

**Summative Reflection**

During the last class session, participants completed a summative reflection regarding what they thought of the SFL strategies they learned about in the class. PSTs were given some open-ended questions such as: What stood out to you the most? What have you learned about teaching grammar and language in the context of teaching reading? What are your feelings about these strategies? How, if at all, do you see yourself using these strategies in the future? This summative reflection allowed me to see if PSTs favored certain strategies over others, if they found certain strategies to be easier or more difficult, if they thought they might use the strategies with their future classes, and if there were patterns across student responses. The summative reflections were another data source that also helped me to triangulate my data.

**Interviews**

At its heart, qualitative researchers participate in open-ended interviews to understand the lived experience of other people and the meaning they make of that experience (Seidman, 2013).
Semi-structured interviews allowed me the opportunity to address the complexity of my participants’ stories within the context of this study’s research questions (Galletta, 2013). Listening to others’ stories are a way of probing into how they make meaning. Seidman (2013) explained, “at the very heart of what it means to be human, is the ability of people to symbolize their experience through language” (p. 8). The way in which people use language and make meaning within the context of their culture is an integral part of this study’s conceptual framework; therefore, it was important to conduct interviews with participants to understand how each individual makes meaning of their lived experiences.

Brinkmann and Kvale (2015) used two contrasting metaphors for the interview – that of a miner or a traveler. In the miner metaphor, knowledge is buried, and the interviewer’s job is to uncover the participant’s inner knowledge, while the traveler metaphor sees the interviewer as one who takes a journey to a far off land and has a story to tell upon returning home. In this study, my goal was to be a traveler, “taking a journey to a distant country, wandering through the landscape and entering into conversations with the people he or she encounters” (p. 57). By evoking memories of participants’ own lived experiences, I can better understand how the context of their prior life experiences have shaped their interpretations of their own educational experiences and how they have made sense of what it means to teach reading.

These goals are best achieved when the researcher and participants have developed a rapport and the shared terminology of SFL terms. This is not to say that the interviews were informal because friendships had been established. To borrow from Seidman, “rapport implies getting along with each other, a harmony with, a conformity to, an affinity for one another” (2013, p. 98). At the conclusion of the semester, my participants were comfortable enough sitting
with me on a Zoom conference call discussing their experiences and of SFL nomenclature while still maintaining a somewhat formal, professional relationship.

Actions were taken in preparation for the interviews to effect positive communication between myself and my participants. Because of our need to practice social distancing due to the coronavirus pandemic, the interviews I conducted with my participants occurred over Zoom. My participants were in their home, and I was in my home study, free from distractions (Creswell & Poth, 2018). I was able to record our interview on Zoom, which was transcribed by Zoom. I then returned to each interview and cleaned up the transcript. This allowed me to become closer to my interview data. Additionally, during the interview I was respectful and nonjudgmental of my participants' responses during our interactions (Merriam, 1998).

Each participant participated in one semi-structured interview that lasted approximately 60 minutes. An interview protocol was established (Appendix B) and was divided into three sections designed to elicit responses about thoughts, feelings, and beliefs before, during, and after completing the course. I ended each interview by thanking my participants for their participation and indicated that I would follow up with them during a member checking meeting once an initial draft was completed. I also sent each of my participants a thank-you note after the interview.

Interviews served as a way for me to better understand how each PST made sense of the strategies, how they might understand how the strategies may fit into their daily teaching pedagogy, and what factors either aided or hindered their understanding. These data were crucial in helping me to answer my research questions: (a) What understanding about language and SFL-informed strategies do PSTs develop during the course? (b) What is the PSTs’ perception of the relevance and usefulness of the SFL-informed approach and strategies? and (c) What factors
promote or inhibit their understanding and use of these language-based strategies for the teaching of reading? Secondly, the interviews afforded me the chance to triangulate my data through a methodological practice called converging lines of inquiry. According to Yin (2018), this practice is a process of triangulation and corroboration based on different sources of information which, when practiced, leads to findings that are more accurate and convincing.

**Data Analysis**

Cresswell and Poth (2018) believe there are three phases involved in qualitative data analysis; preparing and organizing the data for analysis; reducing the data into themes through a process of coding and condensing codes; and representing the data using text, figures, and tables. According to Miles, Huberman & Saldaña (2020), when data is condensed from its original corpus it becomes stronger because this part of the analysis “sharpenes, sorts, focuses, discards, and organizes data in such a way that ‘final’ conclusions can be drawn and verified” (p. 8). In this section, I will explicitly show how I systematically analyzed my data. Because my corpus of data is so large, I will show the process of how I established open codes and then how I moved to axial codes, which eventually led to my findings. For the example I show, I used one source of data, from one PST, to answer my first research question: What understanding about language and SFL-informed strategies do PSTs develop during the course? I will then further explain the process I took to analyze the entire data set.

Figure 3-10 is an example from Lily’s data set. This shows the process of how I established codes for her student work for strategy six. I first looked at Lily’s work from this strategy. As I analyzed her work, I established open codes in the margins. Then, I moved my open codes to an Excel spreadsheet (Figure 3-10). This way, I was able to separate the codes for her understandings and misunderstandings on the spreadsheet. As can be seen from the figure, the open codes specifically show what Lily understood (e.g. can identify a head noun, can
identify adjectives in premodifiers) and what she misunderstood (e.g. identifies verbs as part of noun phrase, misclassifies complement clauses).

After establishing my open codes, I then moved to the next step in the process: establishing axial codes. Axial coding is the process of relating codes into larger categories, adding “depth and structure (Strauss & Corbin, 1998, p. 142). Based on my analysis of the open codes, I saw that Lily was able to identify many parts of speech. Thus, I was able to group all my open codes into one larger axial code: understanding of some parts of speech. Similarly, my open codes showed me the specific difficulty Lily had with understanding noun phrases (Figure 3-10). I was able to group these open codes into two larger axial codes: does not understand parts of noun phrases and does not understand text can have different types of nouns (e.g. simple nouns or noun phrases). I repeated this same process for Lily for the remaining five strategies. The result was a sheet that contained all the open and axial codes for her student work. Once I had my complete spread sheet, I created an analytical memo, which Miles, Huberman & Saldaña (2020) define as “a brief or extended narrative that documents the researcher’s reflections and thinking processes about the data” (p. 88). In my memo, I wrote down my thoughts about Lily’s understanding of the strategy based on the codes I had established for her student work. I was then able to move on to my other data sources.

In the next step of the process, I repeated my previous steps for Lily’s remaining data sources, her exit tickets for each strategy, a summative reflection, and one semi-structured interview. For each of these data sources, I wrote open codes in the margins of the document, transferring them into the Excel spreadsheet, which again were organized by her understandings and misunderstandings of each strategy. After establishing my open codes, I analyzed my data further and was able to establish axial codes. After working with each data source, I completed
an analytical memo for that data source. This helped me to further understand my data as I reflected on my analysis process, the codes I was establishing, and the patterns that began to emerge across the four data sources. By the end of this process, my Excel spreadsheet had 4 different sheets: one for each data source, that contained both open and axial codes that helped me to answer my first research question: What understanding about language and SFL-informed strategies do PSTs develop during the course?

In an effort to be thorough and make sure that I had data to answer each research question, I repeated the entire process described above to answer the remaining two research questions: What are PSTs’ perceptions of the relevance and usefulness of the SFL-informed strategies?, and What factors promote or inhibit their understanding and use of these strategies for reading instruction? What this means is that when I finished analyzing Lily’s data, she had three separate spreadsheets: each addressing one research question. Within each spreadsheet, there were four sheets containing both open and axial codes for each of the data sources. I then continued this same analysis process for the remaining four PSTs.

Because I knew this was an instrumental, embedded case study, I knew my analysis was not finished. After I had analyzed and coded all data sources for each PST for each of the three questions, I then made a new Excel spreadsheet so I could look for patterns across PSTs for each of the data sources for each research question. This means that for one spreadsheet there were four sheets: one for each data source. There were also three spreadsheets, with each spreadsheet containing data that helped me to answer each research question. I transferred each of my PSTs’ axial codes for each data source into columns on each sheet. For example, for the research question: What understanding about language and SFL-informed strategies do PSTs develop during the course?, I had a sheet for student work. On that sheet, I had a column for each of the
five PSTs’ understandings and a column for each of their misunderstandings. I copied each PSTs’ axial codes into their respective columns. Then, I was able to look at the axial codes across all five PSTs, looking for patterns. I repeated this process across the remaining three data sources. Once I had looked for patterns across PSTs that would address research question one, I repeated the process again for research questions two and three.

The final step in the process was to determine my findings. This step occurred after I had completed the step above. I went back to my spreadsheets and looked at the patterns of axial codes across my PSTs for each data source and for each research question. From these patterns I was able to arrive at my findings for each research question. I will discuss the findings that emerged from my data in Chapter 4.

![Figure 3-10. Coding Process for One Source of Data for Lily](image)

**Validation Strategies**

Because I played such a pivotal role in the research process, I needed to ensure that my findings were trustworthy. To strengthen the credibility of my findings I used five validation strategies recommended by qualitative researcher scholars. The key concern in qualitative
research is to understand the phenomenon under investigation through the eyes of participants (Merriam, 1998). However, the term ‘validity’ is a highly contested term, with some researchers preferring the terms ‘credibility’ (Glazer & Strauss, 1967; Lincoln & Guba, 1985), and ‘deep understanding’ (Wolcott, 1990). Regardless of the differences in terminology, I engaged in the following activities to ensure the accuracy and quality of this study.

**Building Relationships with Participants**

A critical component of qualitative research involves fieldwork where the researcher spends a great deal of time with participants so that they may observe participant’s behavior in their natural setting (Merriam, 1998). As the instructor for this reading methods course, I spent five months with my participants, in that time establishing trust with them and letting them know an integral part of my job was to support their learning. In addition to time spent with my participants in class, I was also available to them through office hours, zoom conferences, and email. The time spent together helped us to establish a positive relationship that in turn, helped my participants to feel more comfortable in giving me their candid, honest responses as to what they were thinking during our class meetings, summative reflections, and interviews.

**Thick Description**

Another component unique to qualitative research is the use of thick description. The aims of giving rich, detailed descriptions of participants, the setting and context of the class, and data collection and analysis procedures were twofold. The first aim was that I wanted to be as diligent and transparent in conducting respectable research as I could (Anfara, Brown, & Mangione, 2002). The second was that thick description allowed me to vividly highlight and describe my participants lived experiences in the context of our class which increased the likelihood that my PSTs’ experiences would have a strong impact on the reader (Miles, Huberman, & Saldaña, 2020). You will also see in Chapter 4 that I provide figures and tables...
that illustrate my findings and in Chapter 5 I provide examples that support the assertions I make about my findings. This thick description also helped to provide a window into how each of my PSTs were make sense of the strategies.

**Audit Trails**

Audit trails, or the description and documentation of the steps taken by the researcher during the data collection, analysis, and presentation phases are indispensable in ensuring that a qualitative study is systematic, rigorous, and credible (Wolf, 2003). Audit trails originated in the work of Lincoln and Guba (1985) and are used to help readers, or auditors of the study, ascertain that the findings are grounded in data, that inferences made from the data are logical, and that researcher bias has not influenced findings (Cutcliffe & McKenna, 2003). There are three parts to an audit trail. The first part entails how the researcher describes the different data that will be collected and the justifications for collecting the data. The second part of the audit trail entails how the researcher describes the process for condensing data and how codes, categories and themes are established. The last part of an audit trail entails how the researcher reconstructs the data in their findings of the study, using their interpretations and inferences. An audit trail is used so readers of a study can trace the findings of a study back to the original sources of data so they can determine for themselves if a study is credible.

I have explicitly stated what data sources I would analyze and how each data source could help me answer my research questions. I have also shown the systematic process in which I analyzed my data. In Chapter 4, I will share my findings, illustrating them with examples from the data. Then, in Chapter 5, I will explicitly cite examples from the data that support the inferences and interpretations I made as I discuss my findings. Being transparent with my readers throughout the research process adds another layer of validity as the reader determines the credibility of the study by becoming an external reviewer (Creswell & Miller, 2000).
**Data Triangulation**

Another vital component of ensuring validity in this study was through the use of triangulation of data across different sources. Carlson (2010) claims that a premise is established if researchers can substantiate their interpretations and conclusions across data sets, making it more likely that the study will be trustworthy. Later I provide examples from across participants and sources of data that support my findings and assertions and show that the findings are trustworthy.

**Member Checking**

The final aspect of ensuring validity in qualitative research is to participate in member checking. Giving my participants the opportunity to check and approve the interpretations I made of the data (Doyle, 2007; Merriam, 1998) helped me determine if “the data analysis is congruent with participants’ experiences” (Curtin & Fossey, 2007, p. 92). After I analyzed the data and wrote a draft of my findings and interpretations, I sent the draft to each participant asking them for feedback. Letting my PSTs read how I analyzed data and determined my findings allowed my PSTs to see that I was being transparent, and they also had the opportunity to verify the accuracy of the draft (Carlson, 2010).

**Role of the Researcher**

It is important for me to acknowledge the role I played in the research process by first discussing my experience in teaching reading and then explaining how those experiences have shaped my interpretations in this study. By doing this, I am able to sort through the biases and assumptions I may hold and how they affected my interpretations of the research. These reflections helped me to see which stance my writing took and how I positioned the study (Creswell & Poth, 2018).
I have been an educator for over twenty years. I have experience teaching across four states (Arizona, Kentucky, Tennessee, and Florida) teaching first, second, fourth, reading intervention, and pre-service teachers at the collegiate level. Additionally, I earned my reading endorsement and served for three years as a Common Core Coach through the Tennessee Department of Education, spending time helping Tennessee teachers improve their reading instruction during summer training seminars as well as serving as a mentor teacher with the National Education Association and the Better Lesson Project, creating lesson plans that met the Common Core State Standards (CCSS) for first grade teachers. I also earned my National Board Certification as an Early Childhood Generalist. Besides this, I served as a lead teacher, mentor, and coach for colleagues at the school level.

My time teaching fourth grade was an invaluable experience. My interest in SFL stems from problems of practice. I prided myself in continually striving to better my practice by educating myself in research-based practices. However, after countless hours of study and training, I still could not find a way for my students to transfer the grammar and language skills I taught them to authentic reading and writing situations. I have worked with diverse groups of students, some of them native speakers of English and some who arrived at my classroom door not knowing English at all. Regardless of the socio-economic status, English ability, race, culture, or reading ability, I viewed all students as capable of learning. I saw how some students struggled with academic language use. It wasn’t until I became a doctoral student that I learned there could be an alternative hypothesis for what causes the fourth-grade slump: how complex texts create unique comprehension challenges with their technical, dense, abstract, and metaphorical language; and how there are language-based tools that can help students address
these challenges. As I learned more about SFL theory and strategies, I found myself wishing that I had this knowledge as a classroom teacher.

Another experience that had a profound impact on my outlook as a teacher was the opportunities that I have had to work with both in-service and pre-service teachers. These experiences have helped me understand how critical it is in supporting teachers as they face federal accountability measures while striving to provide the best instruction for the diverse sets of students they encounter in their classrooms. I have encountered teachers who are both receptive and resistant to my instruction and feedback. I have learned from both groups of teachers. The teachers who have been receptive towards my guidance have taught me how important it is to be continually learning and sharing newly acquired knowledge with others. It has been gratifying to see other educators grow in their knowledge and skill sets because of the instruction and mentoring I’ve helped to provide for them. The teachers who have been resistant towards my instruction and support have helped me become a better listener and teacher who strives to see their perspective. These experiences have shaped my role as a researcher, and I must divulge these beliefs to my readers.

My subjectivity affected this study in several ways. Thinking back to my conceptual framework, I know that I have a great deal of knowledge for, in, and of practice. I have analyzed my teaching over my career to improve my practice. In fact, it was because I analyzed my teaching that I came to realize that although I was providing my students the best instruction I could, it still was not enough and some of my students continued to struggle in reading. As I continued to learn and grow as a doctoral student, I knew language played a key role in the teaching of reading. This is something I continued to tell my PSTs throughout the course.
Another way my subjectivity affected this study is that I knew my PSTs did not have the experience I did. I remained respectful of my PSTs thoughts and feelings throughout the study, but I knew that their ideas and opinions regarding how to best teach reading would change as a result of acquiring more knowledge for, in, and of practice. This affected the way I interpreted my data. I made inferences about the reasons behind their current beliefs. I also knew that what they believe currently, may change drastically in only a few short years of being in the classroom.

**Summary**

Chapter 3 provided a rationale for a qualitative investigation to examine and document the experiences of five PSTs as they learned to make sense of reading strategies grounded in SFL through their participation in a semester-long intermediate reading methods course. Additionally, I outlined the key aspects of this study’s research design, including the context of the study, participant selection, and data collection and analysis. I also described the validation strategies I used to help ensure my findings were trustworthy. Finally, I acknowledged and described my subjectivity, stating how my subjectivity affected this study. In Chapter 4, I will detail the findings from my analysis, providing thick descriptions with specific examples to answer the three research questions that guided the study.
<table>
<thead>
<tr>
<th>Session #</th>
<th>Topics</th>
<th>Established Activities</th>
<th>SFL Strategy Introduced</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>Discussion of Syllabus</td>
<td>Concept map – big picture of teaching reading</td>
<td></td>
<td>Authors both show and tell character’s feelings. When authors show characters feelings, readers need to make an inference. Analyzing types of verbs helps students make inferences which is central to comprehension.</td>
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<td></td>
<td>Activating Prior Knowledge</td>
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<td>The Reading Process</td>
<td>Show and Tell</td>
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<td></td>
<td>Defining</td>
<td>Likelihood Scale</td>
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<td></td>
<td>Comprehension</td>
<td>Murder Mystery</td>
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<td>Session 2</td>
<td>Close Reading</td>
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<td></td>
<td>Comprehension Strategy</td>
<td>Video of CS.</td>
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<td>In narrative texts, authors use attitudinal language to develop characters. Analyzing the attitudinal language effects how the reader sees or interprets each character. Readers can then develop ideas about the traits of each character.</td>
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<td></td>
<td>Instruction</td>
<td>Jigsaw of Strategies</td>
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<td>Model Strategy</td>
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<td></td>
<td></td>
<td>Go over lesson template</td>
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<tr>
<td>Session 3</td>
<td>Text Structure and Genre</td>
<td>Fluency and Text Demands</td>
<td></td>
<td>Authors use a variety of devices to organize a text so it is coherent and cohesive. Oftentimes, these devices lead to a breakdown in student comprehension. PSTs will learn about pronoun reference such as referring words and determiners as well as connectives so they can help students recognize and comprehend the texts they read.</td>
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<td></td>
<td>Characteristics</td>
<td>Genre Jigsaw</td>
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<td>Appropriate Questioning to Build</td>
<td>Webb’s DOK</td>
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<td></td>
<td>Comprehension</td>
<td>Leveling Questions</td>
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<td></td>
<td>The Role of Discussion</td>
<td>Lit Circle Videos</td>
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<td>Session 5</td>
<td>Test</td>
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<td></td>
<td>Test 1</td>
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<td>Session 6</td>
<td>Text Complexity</td>
<td>Miscue Analysis</td>
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<td></td>
<td>Matching Texts to Readers</td>
<td>Text Complexity</td>
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<td></td>
<td>Miscue Analysis</td>
<td>Triangle</td>
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<td>Established Activities</td>
<td>SFL Strategy Introduced</td>
<td>Rationale</td>
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<td>8</td>
<td>Structural Analysis for Word Identification</td>
<td>Learning Syllables</td>
<td>Fluency – Levels of Language</td>
<td>Learning about the different levels of language helps PSTs to explicitly teach phrasal chunking of texts in a meaningful way to help students build reading fluency.</td>
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<td>Morphemic Analysis for Meaning Construction</td>
<td>Learning Morphemes</td>
<td>Phrasal chunking</td>
<td></td>
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<td></td>
<td>Vocab Stories</td>
<td>Morphemes-Discuss Lesson Plan</td>
<td>Use of passive voice</td>
<td>Nominalizations are a key feature in science and history texts. PSTs can explicitly teach students how to create nominalizations to understand word meanings and that they are used to summarize information as well as create technical taxonomies, abstraction, and discursive flow.</td>
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<td>Vocabulary Independent Word Learning</td>
<td>Vocab Stories</td>
<td>Morphemes-Nominalizations (Science/History)</td>
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<td></td>
<td>Songs, Activities</td>
<td>Discuss Lesson Plan</td>
<td></td>
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<tr>
<td>10</td>
<td>Content Area Literacy/Disciplinary Literacy</td>
<td>Sticky Note/Chart Activity</td>
<td>How Social Studies and Science Texts are Constructed – Recognizing noun phrases, noun deconstruction and expansion. (noun trains)</td>
<td>Long noun phrases are typically used in science and history texts. PSTs will learn how authors use long noun phrases to densely package large amounts of information into clauses, thus helping to create its academic register.</td>
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<td>Text Sets</td>
<td>Text Sets and Topic Study Planning</td>
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<td>Assessment Test Reading and Preparation Motivation and Engagement</td>
<td>Go Over Tests as a Genre</td>
<td>Adapting UFLI (Reading Recovery) to small group instruction</td>
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<td></td>
<td>Assessment Video Go over Practice Questions – website</td>
<td>Reading Workshop and Guided Reading Workshop Video Generic Structure for Reading Block</td>
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### Table 3.1. Continued.

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<th>Established Activities</th>
<th>SFL Strategy Introduced</th>
<th>Rationale</th>
</tr>
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<td>Implementing Best Practice</td>
<td>Best Practices</td>
<td>Made a Concept</td>
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<td>The Literacy Environment</td>
<td>Basal Hunt</td>
<td>Map of Big Picture</td>
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<td>Media Literacy A Balanced</td>
<td>Balanced Literacy</td>
<td>What They’ve Learned</td>
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<td>Literacy Curriculum</td>
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<td>Summative Reflection</td>
<td>SFL strategies</td>
</tr>
</tbody>
</table>

#### Session 14
- **Final Exam**

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### Table 3.2. A Summary of Each Strategy

<table>
<thead>
<tr>
<th>Strategy Number</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy One – Using Verbs to Make Inferences</td>
<td>Participants will learn BEING, SENSING, DOING, and SAYING verbs and use these verb types to infer how characters are feeling.</td>
</tr>
<tr>
<td>Strategy Two – Using Appraisal Resources to Create Dynamic Characters</td>
<td>Participants will learn about judgment and affect and how authors use these resources to create different types of characters.</td>
</tr>
<tr>
<td>Strategy Three – Referring Words and Cohesive Texts</td>
<td>Participants will learn how authors use pronouns (e.g., he, they) and how they repackage the original noun using a demonstrative (e.g., this, these) to refer back to an original noun. Participants will learn that these resources create cohesive texts.</td>
</tr>
<tr>
<td>Strategy Four – Phrasal Chunking, Fluency, and Comprehension</td>
<td>Participants will learn how to meaningfully chunk a text effectively to aid students in building fluency. Participants will learn how each chunk is tied to meaning to help students build comprehension.</td>
</tr>
<tr>
<td>Strategy Five – Nominalizations in Informational Texts</td>
<td>Participants will learn how to break down complex science texts. Participants will learn what nominalizations are, what their functions are, and how they can be barriers to comprehension.</td>
</tr>
<tr>
<td>Strategy Six – Long Noun Phrases in Informational Texts</td>
<td>Participants will learn about how nouns are expanded by adding pre and post modifiers to the head. Participants will learn how to identify and break down long noun phrases in text to aid in comprehension.</td>
</tr>
<tr>
<td>Categories</td>
<td>Examples</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Article/Demonstrative</td>
<td>Article – <em>The/A</em></td>
</tr>
<tr>
<td></td>
<td>Demonstrative (<em>this, these, those</em>)</td>
</tr>
<tr>
<td>Possessive Pronoun</td>
<td><em>his/her/their</em></td>
</tr>
<tr>
<td>Numeral/Ordinal</td>
<td><em>four/fourth</em></td>
</tr>
<tr>
<td>Pronoun/Adjective</td>
<td><em>some/all</em></td>
</tr>
<tr>
<td>Adjective</td>
<td><em>big</em></td>
</tr>
<tr>
<td>Participle</td>
<td><em>(sizzling/stolen)</em> word formed from a verb but used as an adjective</td>
</tr>
<tr>
<td>Possessive Noun</td>
<td><em>people's idea</em></td>
</tr>
<tr>
<td>Noun</td>
<td><em>McDonald hamburger</em></td>
</tr>
<tr>
<td><strong>Head noun</strong></td>
<td><em>hamburger</em></td>
</tr>
<tr>
<td>Embedded/Relative Clause</td>
<td>the hamburgers <em>that I bought yesterday</em> <em>(relative pronouns = that, which, where, who, whose)</em></td>
</tr>
<tr>
<td>Prepositional Phrase</td>
<td>the hamburgers <em>with cheese</em></td>
</tr>
<tr>
<td>-ed/-ing clause</td>
<td>the hamburger <em>costing $5 each</em></td>
</tr>
<tr>
<td>Comparative Clause</td>
<td>a bigger hamburger <em>than most</em> <em>(key words = as, than, like, of, from, to, such)</em></td>
</tr>
<tr>
<td>Infinitive</td>
<td>the hamburger <em>to feed the hungry</em></td>
</tr>
<tr>
<td>Complement Clause</td>
<td>the fact <em>that alligators are not aggressive</em> <em>(key words = that, whether)</em></td>
</tr>
<tr>
<td>Appositive Clause</td>
<td>The hamburger, <em>the king of all fast food</em>, is cheap.</td>
</tr>
</tbody>
</table>
Qualitative methods are effective for gaining insight into the perspectives of participants in a study (Merriam, 1998). In this study, the use of case study methodology allowed me to gain a deep understanding of how a small group of pre-service teachers (PSTs) made sense of systemic functional linguistic (SFL) strategies taught to them in an intermediate reading methods course. The five PSTs were chosen based on interest and represented a range of understanding and feelings towards the strategies. The SFL strategies taught to the PSTs included,

- Strategy One – verbs and inferring
- Strategy Two – using appraisal resources to create dynamic characters
- Strategy Three – referring words and cohesive texts
- Strategy Four – phrasal chunking, fluency, and comprehension
- Strategy Five – nominalizations in informational texts
- Strategy Six – long noun phrases in informational texts

The purpose of Chapter 4 was to report the findings about PSTs’ understanding of the six strategies taught to them as well as what they felt influenced their understanding. The research questions answered in this study were,

1. What understanding about language and SFL-informed strategies do PSTs develop during the course?
2. What are the PSTs’ perceptions of the relevance and usefulness of the SFL-informed approach and strategies?
3. What factors promote or inhibit their understanding and use of these language-based strategies for the teaching of reading?

The first research question explored what the PSTs understood about each strategy. The second research question was designed to examine if PSTs thought the strategies could be both relevant and useful to them when teaching reading. The third research question
investigated what factors, both in and out of class, supported or hindered how they understood the strategies.

Chapter 4 contains three sections. The first section highlights what PSTs understood and misunderstood about the six strategies, as revealed through examples from the data. The second section details the PSTs’ perceptions of the strategies, explaining what they viewed as benefits of and concerns about using the strategies. The third section highlights the factors that helped to advance or detract from their understanding.

**PSTs Understandings and Misunderstandings**

Data showed that all five of the PSTs demonstrated some degree of understanding of each strategy. In this section, I will provide examples from each strategy that highlights what the PSTs understood and what confused them. The examples that come from my larger data set, helped me to answer my first research question, “What understanding about language and SFL-informed strategies do PSTs develop during the course?

**Strategy One**

To determine what sense my PSTs were making of strategy one (verbs and inferring), I began by analyzing the work that each of them completed. In this strategy, PSTs learned four verb types, **DOING**, **SAYING**, **BEING**, and **SENSING**, how they can be used to show or tell a character’s feelings, and how to make an inference about the character’s feelings based on the verb type. My analysis revealed that all five PSTs could identify the verb types in the text and use them to determine their character’s feelings. Figure 4-1 is a representative example of the PSTs as illustrated by Harriet.
### Inferring with Show and Tell Using Processes

<table>
<thead>
<tr>
<th>Text: Copy and paste the sentences from the text that show and tell the character’s feelings.</th>
<th>Show or Tell?</th>
<th>Process Type</th>
<th>Feelings What did you infer? (for showing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I stopped dead in my tracks</td>
<td>Show</td>
<td>Doing</td>
<td>He was scared to go with her into the basement.</td>
</tr>
<tr>
<td>“I’ll wait up here,” I said,</td>
<td>Tell</td>
<td>Doing</td>
<td>Gabriel would rather not go down the stairs.</td>
</tr>
<tr>
<td>Then we walked out of her room</td>
<td>Show</td>
<td>Doing</td>
<td>He was being cautious because he was scared to go into the basement.</td>
</tr>
<tr>
<td>we crept down the steps real slow</td>
<td>Show</td>
<td>Doing</td>
<td>He was being cautious because he was scared to go into the basement.</td>
</tr>
<tr>
<td>I listened just in case Terrance was down there</td>
<td>Tell</td>
<td>Sensing</td>
<td>Gabriel was hoping to not have a run in with Terrance, so he listened closely. You do not need to infer since this is a sensing verb.</td>
</tr>
<tr>
<td>My heart was beating super fast</td>
<td>Tell</td>
<td>Doing</td>
<td>Gabriel does not feel comfortable going into the basement.</td>
</tr>
</tbody>
</table>

Figure 4-1. Harriet’s Work for Strategy One

Harriet identified the verbs in each piece of text that carried meaning as to how the character was feeling (she identified each verb in bold print). Based on this identification, she was able to state whether the verb showed or told the character’s feelings, four out of five times. She misidentified the doing verb, \textit{wait}, by saying it told the character’s feelings although \textit{wait} also contributed to how he was feeling, showing he would rather wait upstairs than go down into the scary basement. Finally, she correctly made inferences all five times. The analysis shows she did not make an inference with the doing verb \textit{walked}, which is correct since the doing verb did not contribute to how the character was feeling. The analysis also shows that she identified \textit{listened} and \textit{beating} as telling verbs. These verbs should be classified as showing verbs, because they contribute to how the character was feeling.

Although she had a few missteps, the analysis highlights Harriet’s strong understanding of how the character was feeling. My thoughts were further confirmed through further analysis of her writing response about the character that can be seen below:
Writing Response: What are the claims you can make about the character? Use text evidence to support your answer.

Gabriel is scared to go down into the basement. The evidence is “we crept down the steps real slow,” “My heart was beating super-fast,” and “I stopped dead in my tracks.” These show what happens to someone’s body when they are scared and nervous, which is why our claim is that Gabriel is nervous.

As can be seen in Harriet’s written response, she focused on the verbs to support her assertion about how the character is feeling. She further explains that these verbs are things that physically happen to a person when they are nervous.

Although Harriet’s example showed that PSTs showed some understanding of using verbs to show or tell a character’s feelings, there was also evidence of misunderstanding. Olivia and Ann were in the same group and Figure 4-2 is an example of their work. As can be seen on the second line of the figure, both PSTs analyzed three verb phrases within that text excerpt. They do not differentiate what specific verb phrase they are analyzing in each of the columns within that row. Therefore, it makes it difficult to see which verb they are analyzing. They have marked telling and sensing in their respective columns, but I could not analyze if this was correct because they did not identify what verb phrase they were analyzing. Regardless, this example is evidence that they did not understand what “show” and “tell” meant, nor how to use the table to analyze each verb phrase.

<table>
<thead>
<tr>
<th>Text: Copy and paste the sentences from the text that show and tell the character’s feelings.</th>
<th>Show or Tell?</th>
<th>Process Type</th>
<th>Feelings What did you infer? (for showing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The old dirt road was worse than ever on gloomy days like this, and I was jumpy as a fly.</td>
<td>Telling</td>
<td>relational verb</td>
<td></td>
</tr>
<tr>
<td>I lay flat and shut my eyes, but still I felt it in my stomach as the eighteen-wheeler roared by with a gust of wind and water.</td>
<td>telling</td>
<td>sensing</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4-2. Ann and Olivia’s Word for Strategy One

Strategy Two

For strategy two (using appraisal resources to create characters) I intended to teach how authors use language to create engaging, dynamic characters in narrative texts. This strategy
addresses attitudinal language, and how an author’s language choices can help readers to become emotionally invested in the story, either by making readers want to cheer or throttle a particular character. The specific attitudinal language choices I taught were AFFECT, or how authors describe the character’s feelings, and JUDGEMENT, where authors judge character’s behavior. Figures 4-3 depicts a portion of the activity completed by Harriet, who had received a text excerpt from the popular children’s book, *James and the Giant Peach* by Roald Dahl. Harriet’s task was to evaluate the author’s language use for the character, Aunt Spiker.

Within the text excerpt, Harriet had to identify portions of language that would describe Aunt Spiker’s physical characteristics in addition to text that described her thoughts and what she said, thus showing the author’s appreciation of the character. Besides this, Harriet also had to find text that expressed the author’s judgement of the character along with text that would describe her actions, which would signal Aunt Spiker’s emotional state, or affect. Upon completing the language analysis, Harriet then had to complete a written character description of Aunt Spiker, assigning character traits to her and describing what kind of person she was. The following is the guiding question and Harriet’s response:

Based on your character portrait, write a description of Aunt Spiker. What character traits can you assign to her? What kind of person is she?

We think she is a mean, rude, and selfish person. According to the author, she has a very harsh personality and appearance that could be described as “ghastly.”

The exit ticket Harriet completed upon finishing the activity exhibits her understanding about how authors use language to develop both protagonists and antagonists in the text. She wrote, “We like that this strategy helps readers discern how characters are being described and what strategies the author is using to develop characters.” Olivia happened to complete the activity for the same character and seemed to echo this same understanding in her interview when she spoke
about the author’s language choices and how readers can focus on language to discern the traits of each character:

I saw it was a part to whole method where they're looking at the words and making meaning of the text. I think this is a good strategy to use when there's a lot of describing going on and it's essential to the meaning of the text. So, they're [the author] trying to use all these adjectives and words they’re putting into the text really creates the characterization so they're developing the characters and the story. So, I feel like this strategy would be important to use. If you're using narratives and drama, where there are a lot of characters to help them [students] understand what the author’s trying to say about the characters. If the students are just reading over it, they won't understand what the author’s trying to say about each character. Aunt Spiker for example, he [Roald Dahl] was obviously trying to make her sound really evil and mean in the text.

Both PSTs show understanding that the traits readers ascribe to characters do not occur by happenstance, but through the conscious decisions authors make about language when creating and developing characters throughout the narrative.

<table>
<thead>
<tr>
<th>Words and Phrases to Describe What She Looks Like</th>
<th>Part of Speech Used</th>
<th>Author’s Words that Express the Quality of a Character (Author’s Judgement)</th>
<th>Part of Speech Used</th>
<th>Words and Phrases that Describe Her Actions</th>
<th>Part of Speech Used</th>
<th>Words and Phrases That Describe Her Thoughts and What She Says</th>
<th>Part of Speech Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lean and tall and Sony</td>
<td>Adjective</td>
<td>Two ghastly hats</td>
<td>Adjective</td>
<td>Snapped</td>
<td>Verb</td>
<td>Screaming, voice</td>
<td>Verb</td>
</tr>
<tr>
<td>Steel-rimmed spectacles</td>
<td>Noun/Adjective</td>
<td>Adjective</td>
<td>Glared</td>
<td>Verb</td>
<td>I shall beat you...</td>
<td>Verb</td>
<td></td>
</tr>
<tr>
<td>Long wet narrow lips</td>
<td>Noun/Adjective</td>
<td>Adjective</td>
<td>Screaming</td>
<td>Verb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great white soggy overboiled cabbage</td>
<td>Noun/Adjective</td>
<td>Adjective</td>
<td>Shouted</td>
<td>Verb</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

We think she is a mean, rude, and selfish person. According to the author, she has a very harsh personality and appearance that could be described as “ghastly.”

Figure 4-3. Harriet’s Work on Author’s Attitudinal Language
There was also some misunderstanding with this strategy. Figure 4-4 is an example from Mary’s work. She received a text excerpt and analyzed the character James from *James and the Giant Peach*. In the first column of the figure, Mary identified the phrases **HE WAS SWEATING ALL OVER** and **GREAT TEARS FELL AND ROLLED OFF HIS CHEEK** as a way to describe what the character looks like, although these examples show what the character does. In the second column, she successfully classifies **POOR JAMES** as a quality, but she also misclassified part of the phrase (still slaving away at the chopping block) in the second row of the column. This phrase should be in the column that shows what James does. These misunderstandings show that Mary does not quite understand the language features that show what the characters do, say, think, and feel because she misclassifies them.

<table>
<thead>
<tr>
<th>Words and Phrases to Describe What He Looks Like</th>
<th>Part of Speech Used</th>
<th>Author’s Words that Express the Quality of a Character (Author’s Judgement)</th>
<th>Part of Speech Used</th>
<th>Words and Phrases that Describe His Actions</th>
<th>Part of Speech Used</th>
<th>Words and Phrases That Describe His Thoughts and What She Says</th>
<th>Part of Speech Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>He was sweating all over.</td>
<td>verb</td>
<td>Poor James</td>
<td>adjective</td>
<td>James looked back with frightened eyes</td>
<td>verb and adjective</td>
<td>Aunt Spiker shouted</td>
<td>verb</td>
</tr>
<tr>
<td>Great tears fell and rolled off his cheek.</td>
<td>verb</td>
<td>Poor James was still slaving away at the chopping block.</td>
<td>adjective</td>
<td>He ran off as fast as he could</td>
<td>verb and adverb</td>
<td>Aunt Spiker snapped</td>
<td>verb</td>
</tr>
<tr>
<td>far too heavy for a small boy to use.</td>
<td>Adjective/noun</td>
<td></td>
<td>he covered his face with his hands</td>
<td>verb</td>
<td>tried Aunt Sponge</td>
<td></td>
<td>verb</td>
</tr>
</tbody>
</table>

Figure 4-4. Mary’s Work for Strategy Two
Strategy Three

In strategy three (referring words and cohesive texts), I taught PSTs about the resources authors use to develop a cohesive text, specifically the use of pronouns and how authors can use a demonstrative such as THESE or THOSE accompanied by a synonym that renames the original noun it refers to. Although pronoun reference and the renaming of the original noun are language features that can confuse younger readers, interfering with their comprehension, three of the five PSTs understood this strategy well. An example that accurately characterizes how PSTs understood the strategy can be seen in Figure 4-5, which is an excerpt from a text about the Navajo Code Talkers from Pearson’s Reading Street © basal series. The figure depicts the activity that Olivia completed about the Navajo people, or Diné. The author originally introduces the topic of the Diné, then continues to refer back to the Diné throughout the page using pronouns such as THEY and THEM, but also renames the Diné later in the text, using the term THE PEOPLE. Olivia’s work shows her understanding that the pronouns THEY, THEIR, and THEM are pronouns that refer back to the noun phrase THE DINÉ. There is also evidence that she understands how THE DINÉ is renamed later in the text using a synonym (THE PEOPLE).

Harriet had trouble understanding parts of the strategy. Figure 4-6 comes from a text that originates from a story entitled “From Territory to Statehood” from Pearson’s Reading Street ©. The directions were to underline the phrase A TEAM TO EXPLORE since that was the topic of this page. They were then tasked with finding all the phrases within that page that referred back to A TEAM TO EXPLORE. The purpose of the activity was to show PSTs how the original phrase A TEAM TO EXPLORE, or a group of people who were sent to explore the new territory, is synthesized and then repackaged as THE EXPEDITION and THE CORPS OF DISCOVERY.
Figure 4-5. Olivia’s Work for Strategy Three

As can be seen from the figure, Harriet did find terms such as THE CORPS OF DISCOVERY, and THE EXPEDITION, that do refer back to a TEAM TO EXPLORE. She also found terms such as HIS PERSONAL SECRETARY, which referred to Meriwether Lewis, one of the leaders of the team, and HIS FRIEND, which referred to William Clarke, the other leader of the team. Yet, Harriet had one mistake, highlighting the AMERICAN SETTLERS, which refers to future groups that were to come. This shows that Harriet had a bit of trouble in understanding how terms can be summarized and then repackaged later in the text. Harriet herself confirmed that she had trouble understanding parts of the
strategy that were new to her. In her exit ticket she stated, “The thing I found most difficult was identifying nouns with determiners, because I do not have much experience with these.”

Figure 4-6. Harriet’s Highlighting From Strategy Three

**Strategy Four**

In strategy four (phrasal chunking, fluency, and comprehension), PSTs were taught about how to chunk text and how each chunk of text connected to meaning. PSTs were given a fifth grade, small group reader from Pearson’s Reading Street ©. I had created sample data based on fictitious students for this activity. I purposely created sample data to show PSTs that students can have excellent running record data, yet still have comprehension issues because of how language is utilized in text. The activity contained three parts. I will discuss one part at a time and provide examples to illustrate what PSTs understood and what confused them.

The first part of the activity required PSTs to read the fictitious student profile and assessment data and then chunk the text based on their knowledge of the student exhibiting good or
poor fluency. This was determined by how many words correct per minute (wcpm) the student read. For the first part of the activity, four of the five PSTs were able to effectively deconstruct the text into meaningful chunks and connect those chunks to meaning. Meaningful chunks are words or phrases in the text that can answer a question. For example, in Figure 4-7, the second meaningful chunk highlighted in green, **IS A VAST AREA OF LAND**, can answer the question “What is Yellowstone National Park?” Lily’s work (Figure 4-7) characterizes what four of the PSTs understood.

<table>
<thead>
<tr>
<th>Phrasing</th>
<th>Instruction/Questions</th>
</tr>
</thead>
</table>
| **Yellowstone National Park** is a vast area of land that stretches over two million acres. Most of the park is in northwest Wyoming, but parts of it spill into Idaho and Montana. In order to preserve the beauty of Yellowstone, the U.S. government declared the area to be a national park in 1872. It became the first national park in the world. | How big is Yellowstone National Park?  
When did the government declare the area to be a national park?  
*What is considered some of Yellowstone’s natural wonders?* |
| **Yellowstone is famous for its natural wonders, such as hot springs, lakes, canyons, geysers, and waterfalls.** Its forests contain beautiful trees and plants. The park is also home to many kinds of animals, including bear, elk, deer, and bison. |  |

Figure 4-7. Lily’s Work From Strategy Four

The student data Lily received explained that her student could process written text quickly, reading 124 words correct per minute (wcpm) with an accuracy rate of 99%. First, Lily had to chunk the text in a way that would be consistent with how quickly her student could process text and aid in their fluency. Since Lily’s student could already process text at 124 words correct per minute, Lily could help the student chunk the text in longer phrases and clauses for the student. Figure 4-7 shows the first two paragraphs of a text from Pearson’s Reading Street © small group
reader *How the Wolves Saved Yellowstone* by Meish Goldish and is part of the work that Lily completed. Each row in the table denotes one paragraph of text. Lily decided to color code different phrases to show how she would chunk the text. The colors are arbitrary and do not correlate with a particular phrase or clause type. For the chunking portion of the task, Lily accurately showed one way that the first sentence could be chunked. Although her highlighting is incomplete, what she did complete showed Lily’s understanding of how to break up the text in meaningful chunks which aids in students’ reading fluency.

There was also some misunderstanding by some of the PSTs on how they were supposed to break the text into meaningful chunks. Figure 4-8 is an example of Ann’s work. Although she alternated between drawing arrows and highlighting, and some of her work is a bit sloppy, there are two instances where it is evident that Ann did not break the text into meaningful chunks.

| We know this because one man, Callimachus, |
| put together an index of the entire library’s |
| writings telling about each piece of work. His |
| index filled 120 books! Sadly, any writer who |
| hoped that the one copy of his book in the |
| Royal Library at Alexandria would be a |
| permanent memorial tribute to him would be |
| disappointed. The library is thought to have |
| been destroyed during a civil war in |
| Alexandria around A.D. 270. |

When was the library destroyed?

Figure 4-8. Ann’s Work From Strategy Four
On the fifth line in the text, Ann highlighted and drew arrows to show the chunk of his, which on its own does not carry meaning. To carry meaning, the text could be chunked in several ways. I will denote each chunk by separating them with a //. The first way could be marked ANY WRITER// WHO HOPED// THAT THE ONE COPY OF HIS BOOK. Another way to break down the text so it would carry meaning would be ANY WRITER WHO HOPED// THAT THE ONE COPY OF HIS BOOK. Immediately following this chunk, she broke down the text as BOOK IN THE ROYAL LIBRARY AT ALEXANDRIA WOULD. Again, how she broke up the text does not make sense. The word BOOK should be part of the previous chunk that I have written above. This chunk could be chunked IN THE ROYAL LIBRARY// AT ALEXANDRIA, or it could also be chunked as IN THE ROYAL LIBRARY AT ALEXANDRIA. As can be seen in the figure, Ann continued to make chunking mistakes similar to these examples in the rest of the paragraph.

The second part of the activity directed PSTs to connect chunks to meaning. PSTs were able to ask questions about the text in a similar way to Lily’s example in Figure 4-7. This figure shows what Lily understood and misunderstood. She effectively created three WH-questions that are connected to different chunks in the two paragraphs. Yet, although she created three questions, each chunk that was highlighted should have a corresponding WH-question since each chunk carries meaning. Table 4-1 shows how Lily chunked sentence one in the second paragraph and a corresponding question that could be asked for each chunk. For example, in the second paragraph of text, she highlighted YELLOWSTONE IS FAMOUS FOR ITS NATURAL WONDERS but did not ask the question, “What is Yellowstone famous for?” She highlighted SUCH AS but did not ask the question, “What does such as signal?” She highlighted HOT SPRINGS, LAKES, CANYONS, GEYSERS, AND WATERFALLS. This time, however, she asked the question,” What is considered some of Yellowstone’s natural wonders?” This question connections back to the
meaningful chunk HOT SPRINGS, LAKES, CANYONS, GEYSERS, AND WATERFALLS. Lily connected the last chunk she highlighted to meaning by asking a question about examples of Yellowstone’s natural wonders. She did not however connect meaning to the two previous chunks of text she highlighted because she did not ask a question about each chunk. This example shows Lily’s misunderstanding that each chunk of text answers a question such as those seen in Table 4-1.

Table 4-1. Chunks of Texts and Corresponding Questions

<table>
<thead>
<tr>
<th>Chunk</th>
<th>Chunk</th>
<th>Chunk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yellowstone is famous for its natural wonders,</td>
<td>such as</td>
<td>hot springs, lakes, canyons, geysers, and waterfalls.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Question</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is Yellowstone famous for?</td>
<td>What does SUCH AS signal?</td>
<td>What are examples of Yellowstone’s natural wonders?</td>
</tr>
</tbody>
</table>

The final part of the activity required PSTs to take their sample data and analyze their student’s answers to questions about the text. This means that PSTs were to analyze students’ answers to determine if they understood or misinterpreted the different meaningful chunks within the text. These questions were designed to have PSTs think about how language was used in the text. I wanted PSTs to see that analyzing students’ answers could reveal how students could have difficulty processing meaningful chunks throughout a text. Figure 4-9 shows Lily’s work for this part of the activity. It should be noted that the information in columns one and two were given to the PSTs. Their job for this part of the strategy was to analyze their student’s answer against the text to assess and pinpoint where their student may be misinterpreting the meaningful chunks and record what the misinterpretation might be in the third column. Though lacking specificity,
Lily’s first analysis was fairly accurate. Lily wrote that the student did not look in the right spot for the answer but picked out a reason that could be plausible. In essence, the student did not look for the correct meaningful chunk to answer the question. The student did indeed look for text evidence and chose the last sentence in the first paragraph as their answer, when they should have chosen the first clause in the sentence preceding it, *In order to preserve the beauty of Yellowstone*.

Question two focused again on the first sentence in the second paragraph (Figure 4-9). The answer Lily’s student gave showed that she can use text evidence to identify what Yellowstone is famous for (*Natural wonders*). However, when the student is probed to be more specific, the student simply rewords what natural wonders are (*Wonders that are found in nature*) instead of understanding that the chunk *such as* connects the chunk *natural wonders* to the examples of *hot springs, lakes, canyons, geysers, and waterfalls*. Again, the student is not making connections between the meaningful chunks to answer the question.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer/ Follow Up Question</th>
<th>Analysis of Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let’s look at the first section here. Why did the U.S. government declare Yellowstone to be a national park?</td>
<td><em>They wanted it to be the first national park in the world.</em> <em>(incorrect)</em></td>
<td>- This is not why United States wanted it to be a park. Even though this is not made up and is in the book this is not correct. She did not get the answer from the right spot in the text, she instead picked out a reason that was close to the actual answer.</td>
</tr>
<tr>
<td>Let’s look at the second paragraph. What is Yellowstone famous for?</td>
<td><em>It’s natural wonders. Can you be more specific? Wonders that are found in nature.</em> <em>(correct incorrect)</em></td>
<td>- She gave no specific reasoning. She did not understand the concept of the question and instead just used the skill of finding the answer in the book quickly.</td>
</tr>
</tbody>
</table>

Figure 4-9. Lily’s Work From Strategy Four

As can be seen in Figure 4-9, Lily’s answer is somewhat ambiguous, stating that the student did not understand the question and was quickly looking for a plausible answer. This analysis
showed Lily did not quite understand that the student was not making connections between the different meaningful chunks, or that the student didn’t understand that such as signals exemplification, instead attributing the student’s misunderstanding to motivation and carelessness, by looking for the answer quickly.

Ann’s work also revealed she had difficulty understanding how student comprehension problems can be a result of not making connections between the different meaningful chunks (Figure 4-10). The original sentence in the text that Ann was analyzing was, sadly, any writer who hoped that the one copy of his book in the royal library at alexandria would be a permanent memorial tribute to him would be disappointed. The sentence that immediately comes after that says, the library is thought to have been destroyed during a civil war in alexandria around a.d. 270. The student’s answer to the first question was, “it’s sad”, but when further prompted as to what was sad, said, “I don’t know the sentence is too long”. The correct analysis would have been that the student didn’t connect how the first and second sentences worked together to make meaning. For instance, the second sentence, states how the library was destroyed by war, and the first sentence is about how a writer would hope their book might be a permanent memorial tribute to themselves by being displayed in the library. The writers’ hope of this tribute did not come to fruition because of the destruction of the library. The two ideas are connected with the author’s use of the words sadly and disappointed. Instead of attributing the comprehension problem to how language is connected in text, Ann’s group analysis said, “Doesn’t know sadly is a transitional word (sadly is actually an adverb) and does not have motivation (lack of it) to find/interpret/infer the right answer”.

This happens again in the third row in the figure. The original sentence in the text says, these people were housed, fed, and paid to live there. Again, instead of connecting this
sentence back to previous sentences in the text, such as how books were filled with powerful knowledge, Ann’s group wrote, “She does not want to elaborate or find evidence/reasoning in the text. This is a lack of motivation we feel.” These statements are consistent with what happens in many classrooms across the United States due to the focus on motivation and teacher’s lack of knowledge about how language is used in text. It also shows that Ann misunderstood the connection between student reading comprehension and written language comprehension.

<table>
<thead>
<tr>
<th>Let’s look at this sentence starting with “Sadly”. Why did the author start this sentence with the word “Sadly”?</th>
<th>Because it’s sad. What’s sad? I don’t know the sentence is too long. (correct/incorrect)</th>
<th>Doesn’t know sadly is a transitional word and does not have motivation (lack of it) to find/interpret/infer the right answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let’s look at the last paragraph. It says the kings would bring great thinkers to the library. Why would he want to bring great thinkers?</td>
<td>??????? Who in American might be a great thinker today? A smart person. (incorrect)</td>
<td>She takes the question literally and does not have background knowledge on who could be a great thinker</td>
</tr>
<tr>
<td>It says that the great thinkers were housed, fed, and paid to live there. Why would a king do that?</td>
<td>Because the great thinkers were important. Why were they important? ?????? (incorrect)</td>
<td>She does not want to elaborate or find evidence/reasoning in the text. This is a lack of motivation we feel.</td>
</tr>
</tbody>
</table>

Figure 4-10. Ann’s Work From Strategy Four

**Strategy Five**

For strategy five (using nominalizations in informational text), I taught PSTs about nominalizations. Nominalizations are nouns or noun phrases that are created from adjectives or verbs. As such, they tend to elide agency that is typically present if they are repackaged into a clause. I also addressed the associated pitfalls to comprehension of using this language feature.

The activity again consisted of three parts. PSTs were given an excerpt from a middle school science textbook (Miller & Spoolman, 2009); each excerpt contained nominalizations. First, they were to highlight words within the text that they thought might hinder a reader’s comprehension. Of those highlighted words, they needed to determine which were nominalizations that could be broken down further into a more user-friendly, spoken form, which would help the reader better
comprehend. Finally, the PSTs were required to read the different sentences and determine who the agent, or actor, for a given action was in the text. This was particularly difficult due to the fact that the PSTs were unfamiliar with the strategy. Nevertheless, all five of the PSTs showed some degree of understanding of nominalizations, with Ann’s work being a good example of their understandings and misunderstandings.

Ann’s work is displayed in Figure 4-11. Ann was able to identify several words and phrases that would confuse intermediate students. These include DISRUPTION, MODERATE WARMING, ATMOSPHERIC WARMING, EXTENSIVE LOSSES, and CONVERSION. Though she identified words and phrases that would confuse intermediate students, there could be more words and phrases that might still confuse students. These words include BIODIVERSITY, ECOSYSTEMS, and PRONE. Of the words and phrases Ann identified as being difficult, she did correctly identify the nominalization CONVERSION.

In the translation part of the activity, Ann showed misunderstanding in how to translate a nominalized phrase into a form more consistent with spoken language. In the first translation, Ann translated climate disruption as DISRUPTIONS IN THE CLIMATE. A more spoken form might be something like, ACCORDING TO REPORTS IT IS FORESEEN THAT THE CLIMATE COULD BE DISTURBED. She did this again in her third translation. She attempted to make the original text a bit simpler, but she used the phrase WARMING OF THE ATMOSPHERE, which is still a nominalization. She could have used a phrase such as IF THE ATMOSPHERE CONTINUES TO GET WARMER.

The final task required Ann to identify the agency, or actor in the text. Figure 4-11 illustrates Ann’s misunderstanding of this concept. In the first sentence in the excerpt, ACCORDING TO THE 2007 IPCC REPORT, PROJECTED CLIMATE DISRUPTION IS LIKELY TO UPSET ECOSYSTEMS, DECREASE BIODIVERSITY, AND DEGRADE ECOSYSTEM SERVICES IN AREAS OF EVERY
CONTINENT..., Ann identified the agency as IPCC, which to an extent is true as IPCC did release the report. However, there is an additional layer of meaning that can be uncovered in that sentence. The question to be asked to uncover a deeper meaning would be, “Who is involved in the climate disruption?” The answer to this is not IPCC, but humans that are involved in climate disruption. When questions such as these are asked, readers can think critically about texts and advance their comprehension to a deeper level; however, Ann did not appear to do so.

Ann made a similar error in her second identification. In the sentence, ACCORDING TO A 2009 BRITISH STUDY LED BY CHRIS JONES, UP TO 85% OF THIS FOREST COULD BE LOST IF ATMOSPHERIC WARMING IS NOT CURBED, Ann identified the agency as the British. Again, it is easy to understand why she identified the British as the agent, yet again, there is a deeper meaning to be uncovered. The question, “Who should be doing the atmospheric curbing, and what does that entail?” can lead one to think about how humans need to change their habits and care for the planet. These examples shown above do not contain all the nominalizations in the text. However, Ann’s answers show that despite my modeling and guided practice on how to uncover agency that is buried in nominalizations, Ann still did not quite grasp this concept.

<table>
<thead>
<tr>
<th>Original Text</th>
<th>Translation</th>
<th>Who is the Actor?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate Disruption Is a Threat to Biodiversity</td>
<td>According to the 2007 IPCC report, projected climate disruption is likely to upset ecosystems, decrease biodiversity, and degrade ecosystem services in areas of every continent. For example, the Amazon rainforest could be devastated, even by moderate warming. According to a 2009 British study led by Chris Jones, up to 85% of this forest could be lost if atmospheric warming is not curbed. The scientist noted that this would involve extensive losses in biodiversity and other ecosystem services as the rain forest dries out and becomes more prone to burning and the resulting conversion to tropical savanna.</td>
<td>IPCC</td>
</tr>
<tr>
<td>According to the 2007...projected reports of disruptions in the climate...</td>
<td></td>
<td>British</td>
</tr>
<tr>
<td>...even by warming that is moderate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>...could be lost if warming of the atmosphere is not curbed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a great number of losses of different species and other ecosystem...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>converting the land to a tropical savanna.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4-11. Ann’s Work for Strategy Five
**Strategy Six**

For strategy six (long noun phrases in informational texts) I taught my PSTs about long noun phrases that are used by authors to compress information into fewer clauses to be more precise. Strategy six was another difficult strategy for my PSTs which I attribute to this being a brand new skill for them. The PSTs were able to show they understand grammar form by identifying head nouns, premodifier adjectives, and some post modifiers such as prepositional phrases. Their understanding is consistent with the identifying and labeling activities found in traditional grammar texts.

Lily’s work from this strategy is an example of what all the PSTs were able to do on their activity worksheets. Figure 4-12 shows how Lily highlighted what she believed to be premodifiers in pink, head nouns in yellow, and post modifiers in aqua. Lily identified the ALLIGATOR correctly as a premodifier and head noun but does not identify A FRESH WATER as the premodifier for CREATURE. She also fails to identify CREATURE as a head noun. She did correctly identify WITH A BROAD SNOUT and BROWNISH BLACK SKIN as postmodifiers. Lily’s work also shows she did not understand that there can be several noun phrases in a sentence. The third sentence in the figure shows that she identified ALL ALLIGATORS correctly as a premodifier and head noun. She identified AND HAVE RAZOR SHARP TEETH as a postmodifier; however, the words AND and HAVE are not part of the noun phrase and RAZOR and SHARP should be identified as being premodifiers and TEETH should be identified as the head noun. Lily also highlights the word THEY as a head noun, when it is, in fact, a pronoun. Errors such as these continue throughout the text excerpt.
Further evidence of Lily’s misunderstanding can be seen in Figure 4-13. After identifying parts of noun phrases in the text, participants were charged with placing the different parts of a noun phrase into the deconstruction table. Although Lily identified THEIR KINGDOM correctly by highlighting it in the text as a premodifier and head noun, she incorrectly classified THEIR as an article/demonstrative, when it should be a possessive pronoun. Further misunderstanding can be seen with the phrase RAZOR SHARP TEETH which Lily identified as a postmodifier when highlighting. Instead of classifying RAZOR and SHARP as premodifier adjectives and TEETH as a head noun, she classified the phrase as a complement clause. A complement clause would be a clause most likely introduced with the words THAT or WHETHER and is attached to a noun, adjective, or verb. As can be seen in Figure 4-13 there is no complementizer such as THAT or WHETHER that precedes razor sharp teeth. These misunderstandings are not surprising, considering the content was largely unfamiliar to her.
To summarize, although only briefly exposed to SFL strategies, and despite some misunderstandings, data revealed that PSTs showed a burgeoning understanding of the strategies, some more so than others, and became more aware of how language is employed by authors to make different kinds of meaning across various text types. This new awareness suggests that they may be more sensitive to addressing language demands in text while teaching reading.

**The Role of Language in Reading Instruction**

In Chapter 2, I discussed the three main tenants of language in SFL theory. Language is first a creative resource for making meaning. Language is also seen as a system of grammatical choices used to make meaning. Lastly, people alter the way they use language based on the context of their social situation. In Chapter 2, I also specifically discussed the concepts of genre and register. Genre refers to different text types used to achieve different social purposes. Each genre has a conventionalized set of stages and a constellation of language features (e.g., action verbs, time order words, generalized nouns, or technical vocabulary) that realize its purpose. Register refers to how people alter their vocabulary and grammar based on the context dimensions of their social interaction, including the topic they are discussing, the role relationship between author and audience, and the mode of communication (e.g., written vs. oral). Therefore, according to SFL theory, teaching students about the role that language plays in reading means explicitly teaching the language patterns that are common to different genres as well as how these patterns vary across genres. For example, Table 2-1 shows the language features associated with different genres. For the narrative genre, the language features (words and phrases) include the use of specific participants (John, Mrs. Smith), dialogue, past tense verbs, and verbs of doing, saying, and sensing. The data from this study revealed that, despite my lessons, the PSTs continued to embrace a different understanding of the role language plays in reading instruction than the
one I preached in the course. In fact, the PSTs saw language as oral language development in a child’s early years and did not connect it to classroom reading instruction.

Interview data suggest that PSTs believed that the role language plays in reading instruction happens outside of the classroom in the early years of a child’s development. In their interviews, three of the PSTs offer unique insights regarding language.

When asked about the role language plays in the teaching of reading, Olivia stated,

So, kids are exposed to language way before they’re taught to read. There has been so much research done on the effects of students who grew up in families who are poor, and they’re exposed to a fewer number of words, which becomes a huge language gap. Their reading abilities are so much lower usually than students who come from homes that are middle class or have a higher socioeconomic class. So, exposure to language prior to reading is essential for them because if you hear a word before you see it in text it will be more likely you’re going to read the word. If you’ve never heard or seen the word before, it will be much more difficult to read. I would say having those wide, diverse language experiences is very impactful for students.

When probed further as to how she would provide students with language experiences in the classroom, she offered suggestions such as being intentional with her words, exposing students to new language, providing families with community resources, and providing books for students to take home. Referring to the work of Hart and Risley and the 30 million word gap (Hart & Risley, 1995), Olivia’s statement showed that she understood how vocabulary development affects a child’s early learning experiences in reading. Olivia did not mention, however, anything about the explicit teaching of language patterns while teaching reading. It does not appear that her exposure to SFL strategies and how they are explicit ways of addressing the issues students have with the different language patterns across texts was robust enough to make the connection regarding teaching language and reading both explicitly and simultaneously. Olivia’s exposure to the role of oral language and vocabulary development she received in the K-2 reading methods
course may have had a stronger influence on her than the brief exposure to SFL strategies that she received in this course.

Thinking from an ELL’s perspective, Lily offered a unique assessment of the role of language in reading instruction. She reflected on a learning activity from a Teaching English Secondary to Other Languages (TESOL) class.

We studied a piece based on our first language. In English, we say THE RED HOUSE but in Spanish, you might say HOUSE RED. Sentence structure impacts how you think about things. We did an experiment where we had to draw a series of pictures. The people who spoke other languages flipped the order of how they drew their pictures. So, language has a huge impact for me when teaching reading, being aware of a student’s academic vocabulary and background knowledge. For instance, there might be a vocabulary difference between students from a high needs school and a high parental involvement school, even though they might both be English speaking students, but they might have a huge vocabulary gap. This is something I need to be conscious of as well as a student’s native language because the grammar is different.

Lily showed that she associates language with specific type of language (e.g., English, Spanish) instead of the grammar in a language. It’s also interesting that she did not mention the difficulty a native English speaker may have with grammar patterns while reading, other than the mention of vocabulary gaps. She failed to mention ways she could help native speakers with these patterns in texts, other than addressing vocabulary.

Finally, Harriet discussed language and its role in teaching reading from an oral language perspective.

I think it means everything to be able to understand language and the mechanics of language and I realize now how much I’ve underestimated that because that piece of it came more naturally to me. I was a real big talker, and I was talked to a lot, so I think that language has always been my strong suit, even with learning new languages. Now I understand so much more and the role it plays to people who struggle more and don’t have as much experience at a young age with oral language and reading like I did.
Like the two other PSTs, Harriet talked about the effect of oral language on reading achievement. Also similar to the other PSTs, Harriet did not mention how difficult grammatical structures in text could be a factor in students’ poor reading achievement.

Based on these data, it appeared that PSTs understood language to be vocabulary or oral language development in a learner’s first language. They rarely associated grammatical patterns in a text to reading challenges and reading development. Nor did they seem to truly understand or embrace a functional view of language that SFL promotes.

**PSTs Perceptions of the SFL Strategies**

In this section, I describe the PSTs’ views of the benefits of SFL strategies and how they might use them in reading instruction. I also describe their concerns regarding these strategies. These data helped me to answer my second research question: What are the PSTs’ perceptions of the relevance and usefulness of the SFL-informed approach and strategies?

**Benefits**

Due to COVID-19 restrictions, PST’s field placements were canceled the semester in which this study took place. Thus, PSTs were unable to assess the strategies with school children. However, the PSTs did predict how the SFL strategies could fit into daily reading pedagogy and noted some potential benefits of these strategies.

**SFL strategies are beneficial for struggling students**

PSTs took away different thoughts regarding which students would benefit most from the strategies and in what classroom configurations. All five PSTs saw the strategies being especially beneficial for ELLs and those students who struggle with reading comprehension.

For strategy one (verbs and inferring), Mary expressed in her exit ticket that the strategy would be most beneficial for ELL students because the strategy helped learners to identify verbs and how they were used in text. Ann appeared to confirm this assertion in her interview. She saw
the strategy as a way “to break down the text for students who may not quite understand how to infer based off of what’s going on in the text.” In this statement, Ann specifically addressed how the strategy could benefit students who struggle with the skill of inferring. Olivia claimed that the strategy could also benefit students who struggle with the comprehension skill of visualizing, and she connected this strategy to what she had been learning in her writing class. In her interview, she referred to what she learned in her writing class, stating, “You have to be intentional with your writing, making it vivid by using showing verbs so readers can imagine and visualize”. Harriet supported this claim about writing in her interview as well, stating that the strategy can help students “be more cognizant of what they’re writing and how they’re portraying the characters’ feelings and actions”. Even Lily, who saw the strategy as not being quite developmentally appropriate for elementary school students, said she could see this as a potential intervention strategy for those students who exhibited “really bad writing.” Olivia explained in her interview that strategy one (verbs and inferring) would benefit all students, but she also felt the strategy was more geared toward helping struggling readers. In her interview, Olivia stated,

This strategy could help students that have a reading disability and can help them understand where the story’s going. I would probably introduce this in a small group first depending on who needs help and would use small groups so struggling students got more attention. I could also probably do this whole group followed by small group practice. I don’t know how I would like to introduce it though.

Similarly, three PSTs found strategy two (attitudinal language) to be especially beneficial to use as an intervention strategy for students who struggled to read. In Olivia’s exit ticket, she stated, “This is a great activity for upper elementary students, especially for intervention.” Lily agreed with Olivia on this point, noting in her interview that the table helped struggling students learn parts of speech and which parts of the text help to develop the character. She went on to say
that “this is a really good explicit strategy, but I don’t think all kids need this.” Ann seemed to support what Lily said about the strategy being appropriate for students who struggle with reading comprehension. She also linked the strategy to the creation of a character summary. In her interview, Ann said of the strategy,

I would use this for students who don't know how to find text evidence very well because you’re literally finding what they’ve said and what describes them and trying to put those descriptions in your own words. So, I could use this with students who struggle with summaries, especially character summaries. This strategy would be good for students who need more practice with finding text evidence.

Students also made comments about strategy four (phrasal chunking, fluency, and comprehension). Mary thought strategy four would be most beneficial for struggling readers. In her interview she stated,

I thought that this strategy would be especially helpful for struggling readers, especially to help students build up their fluency and help them to gain better comprehension. I would use the strategy with all students, but I think it would be especially beneficial to those struggling readers.

Ann also thought the strategy would be useful for struggling readers. She regularly tutored a young girl in reading who recently emigrated from Ukraine and discussed her student’s reading challenges as she was first acquiring English. In her interview, Ann was able to articulate how this strategy would be useful to her student.

The student I work with will read something, but it takes everything in her to read it and then she has no idea what she just read. I think it showed me how students would read the text, chunking it up into the different parts that they would read made me realize, “Okay this is what they read, and this is their understanding. Now they're at this part. This is what stood out to them in that chunk, or that phrase.” Being able to just break it down I think helps with students who might look at something and see just a ton of words. If they're able to break it up into chunks, it would not be as overwhelming.
Olivia appeared to agree with Ann when we spoke the following semester. With COVID-19 restrictions somewhat lifted, she was able to return to the classroom for her field experience. Like Ann, Olivia observed how strategy four could be useful for struggling readers.

I was reading with two kids today and they're struggling readers and didn't want to read. I used this [strategy]. I broke it [the sentence], it had a comma. It was not a compound sentence, but like a conjoined sentence, and I used this. I broke the sentence into two pieces, and it made it more comprehensible for them.

Although Olivia did not master all the metalanguage regarding phrases and clauses in sentences, it is evident that she understood that each phrasal chunk carries meaning was evident.

**Using the strategies to meet standards and curricular goals**

All five PSTs found at least one strategy to be valuable for helping them to meet state standards, with four of the five finding value in more than one strategy. The Common Core State Standards (CCSS) are separated into three clusters, with the first including three standards that focus on key ideas and details in the text. Many comprehension skills and strategies, such as inferring, asking questions, determining the theme, comparing and contrasting, cause and effect, and summarizing, are used to meet these standards. The reading methods class in which this study took place focused heavily on comprehension, and explicit connections were made between the SFL strategies and comprehension skills in each of my PowerPoint presentations. Therefore, it comes as no surprise that the PSTs found the strategies helpful in meeting the state’s instructional standards and goals.

Four of the five PSTs believed strategy one to be instrumental in teaching the comprehension skill of inferring. In her interview, Harriet said, “I think this strategy will help students with their writing, though, to be more cognizant of what they're writing and how they're portraying their characters feelings and actions.”
Mary thought the strategy was useful for explicitly teaching inferring. In her interview, she said, “Inferring is one of those comprehension strategies that is very important. I think that this would be an extremely helpful strategy to teach this skill.” Ann also liked the explicitness of the strategy. She said in her interview, “I thought this was kind of a good way of breaking it down a little bit for students who may not quite understand how to infer based off of what's going on in the text.”

Mary made a connection to a comprehension strategy that no one else had considered, that of visualization. In her exit ticket, she wrote, “We liked how we could visualize based on the description of James.” I found this statement, although simple, to be quite insightful, as she brought to the forefront another way strategy two (using appraisal resources to create dynamic characters) could be used to meet state standards. Although Mary was the only PST who connected this strategy to the skill of visualization, other PSTs found strategy two valuable in addressing the first cluster of the CCSS. In Ann’s exit ticket she expressed, “I find this strategy of attitudinal language very valuable in regard to comprehension of a text. By analyzing the specific language choices utilized by the author, we were able to decipher the character traits and build a character profile of Mathilda.” Ann’s statement about how strategy two could be used to determine character traits helped me realize that this strategy could indeed be used to achieve the first cluster of the CCSS regarding key ideas and details.

Mary also brought critical insights regarding strategy four (phrasal chunking, fluency, and comprehension) to the forefront. In both her interview and summative reflection, she noted how the strategy could motivate students, helping them to feel less overwhelmed by academic texts as they build their accuracy, rate, and prosody while also helping them to comprehend text because it could help them to better process the author’s message. Oftentimes, students will lose
motivation to read large portions of dense text because the task is both daunting and overwhelming. Strategy four can show readers how to break up a sentence into smaller pieces that carry significant meaning. Students can then put the pieces together to make meaning of the entire text, which leads to better comprehension for the student. When students understand how the smaller chunks of text contribute to the meaning of the entire text, they are able to meet the CCSS regarding key ideas and details.

Ann made a similar observation in her interview, connecting her learning of the strategy to another class. In her interview, she said that the strategy could help to develop positive student attitudes about reading informational texts by helping students to navigate and comprehend these texts more effectively.

We watched a video of a teacher giving this huge packet of stuff to read, and the students were immediately unmotivated. No one wanted to read or do the packet. The teacher took a step back and helped the students with one paragraph. They successfully broke the paragraph together and students were motivated because it was only one paragraph. The students did not feel overwhelmed with the task of completing one paragraph and felt they could complete another paragraph because of their success. It’s important to show students it’s not the entire passage that’s important but that breaking down text is possible.

Again, Ann’s statement showed me how strategy four could help students feel less overwhelmed when tasked with reading complex text because the strategy helps them break down the text into more manageable chunks, which again can help students to meet the CCSS standards on key ideas and details through better comprehension.

**SFL strategies make grammar learning more visible and authentic**

Another insight that arose from the data was that four of the five PSTs reported that the SFL strategies were helpful when teaching grammar explicitly in the context of reading. Lily even admitted in her exit ticket for strategy one that even though the strategy was difficult for her since she had learned grammar in a completely different way, she saw how the strategy would be
much easier for students to understand if they were taught grammar in context early in their school careers.

The data suggested that four PSTs felt strongly about teaching grammar in context because of their exposure to the SFL strategies. Several PSTs made the connection that students could be learning grammar concepts, such as parts of speech, while simultaneously learning reading concepts. Mary’s response in her exit ticket for strategy one echoed what Lily said about the strategy being difficult because she had never learned about the different verb types in her grammar experiences as a student. She added that the strategy was a good way to practice identifying verbs in context, with ELL students especially benefitting from the strategy. Harriet seemingly agreed with Mary’s assertion. In her exit ticket for strategy two, she stated how the strategy can help students learn about the parts of speech while also learning about character traits and attitudinal language.

In regard to teaching grammar in context, the data revealed that PSTs understand that grammar instruction should be explicit, and the SFL strategies are explicit ways to teach grammar. In Harriet’s exit ticket for strategy three (referring words and cohesive texts), she discussed how she liked the explicitness of the strategy and how she wished she had similar instruction when she was younger.

I really like how this activity focuses on keeping track of referring words and participants because I think that a lot of teachers probably take it for granted that their students understand what is being referred to in the text. I remember as a young reader when sentence structures started to get more complicated, I had to read back a lot to determine what nouns were being talked about. I think it would have been a lot easier to develop this skill if it had been explicitly taught.

Harriet’s struggles as a student with this skill undoubtedly shaped what she thought of the strategy and how its explicitness, such as how the author used participants (nouns) and referring words to create the structure of a cohesive text, could help students who struggled like she once
did. In the same vein, Ann also liked the explicitness of the same strategy and in her interview discussed how the strategy could help students keep track of what is being talked about in the text.

I think this could be really helpful for students when there's a lot of pronouns and you don’t know exactly what it’s [the text] talking about, especially for social studies and science where there’s a lot of content thrown at you all at once. I think it helps break down exactly what they're talking about in that paragraph or that section. Essentially, it breaks it down for them [students] in a way where they’re like, “Oh, I see this, but they [the author] were just talking about this. So, it's most likely that's what they're [the author] talking about”. Sometimes that doesn't go through a kid's head automatically. So, I think this was more of a physical way on paper to see where we're still talking about something.

It is evident from Harriet and Ann’s statements that they felt this strategy is an explicit form of teaching grammar, which also positively affects student’s reading achievement.

In their summative reflections on the six strategies, both Mary and Olivia wrote of the versatility of the strategies. Mary’s last comment in her reflection stated, “All of these strategies will be useful to me in my future classroom in order to assist students in grammar and language.” In a like manner, Olivia’s final statement in her reflection asserted, “SFL strategies make lessons explicit, helps ALL students learn, and reduces the achievement gap. Not all students have models of reading at home and they need this explicit instruction in class.” These two PSTs clearly have strong feelings towards the strategies. Overall, all the PSTs expressed an understanding of how students can successfully learn grammar and reading concepts both simultaneously and in an explicit way.

**PSTs’ Concerns Regarding the SFL Strategies**

Given the limited amount of time that PSTs had to work with the strategies due to the pandemic, it was encouraging to find that they observed benefits when using them. However, PSTs did voice two main concerns about the strategies.
Concerns about the need for the strategies for all students

Two PSTs voiced concern about the need for the strategies. Lily, who was the least receptive to the strategies, felt as though the strategies were not appropriate for younger students. Lily expressed that she couldn’t use the strategies since she eventually wanted to teach kindergarten. Additionally, since field placements were canceled due to COVID-19, she was unable to work with students to see how they might struggle with language in text. This undoubtedly affected whether she found the strategies to be useful, and she acknowledged this in her interview, saying, “The strategies could be helpful. Maybe I just haven’t worked with enough intermediate level students to realize that this is something that they’re struggling with.” This statement revealed that the opportunity to implement new strategies in field placements is a critical component of teacher knowledge construction.

Mary had difficulty understanding how the strategies could be differentiated to meet the needs of all learners. In her exit ticket for strategy two she wrote, “If students know how to do this, then it may be viewed as busy work because it’s not benefitting them.” In a similar manner, Mary saw some of the strategies as only benefitting struggling students. In her strategy three exit ticket she wrote, “This would be a good activity for struggling readers as it would allow them to better understand who the author is talking about.” Lily stated something very similar about strategy one. In Lily’s interview, she explained why strategy one would not benefit advanced learners.

It seems like busy work because they understand and they don’t need to explicitly write it because they already do that in their head. They understand how to go about the process. So, it’s just boring and they don’t need it. It’s a waste of their time and mine.

Although there were concerns about the need for the strategies, there were also concerns voiced about implementation.
Concerns about implementation of the strategies

Another concern PSTs voiced had to do with how they would implement the strategies in their classrooms. There were many types of pre and post modifiers to learn in strategy six (long noun phrase). As a result, the strategy was quite difficult for PSTs to learn. Harriet asked many good questions about implementation in her exit ticket:

- How would you teach this to younger students considering how tedious the strategy can be?
- What would the pacing of this look like through the elementary grades?
- When do students learn all these parts of speech, phrases, and clauses?
- How much time should be dedicated to this?

Olivia also voiced concern with implementation in her summative reflection, writing, “I would like to teach these strategies in my class, but I am unsure of how I would introduce them. Would I do this in a similar way to how we learned them in class, but with appropriate text levels?” These concerns are indeed valid and I will discuss them further in Chapter 5.

Factors That Promoted or Inhibited PSTs Understanding

Throughout the study, the PSTs identified factors that promoted or impeded their understanding of the SFL strategies. In this section, I discuss these factors and the role they appeared to play in PST understanding.

Prior Knowledge

The first factor that PSTs identified as affecting their understanding was background knowledge. For some of the strategies, there were concepts that built on PSTs’ adequate prior knowledge, and this is where PSTs had greater understanding of the particular SFL strategy. For instance, both Ann and Mary acknowledged in their exit tickets for strategy one that identifying verbs was easy because they already knew from their prior schooling what verbs are. Mary stated, “It was easy to point out what verbs were in the sentences because it is something we had
learned in elementary school.” Ann corroborated this in her exit ticket, writing, “The easiest part was being able to know where the verbs were in each sentence because we know what a verb is from class.” Besides being able to easily identify verbs in the activity, it appeared that the PowerPoint presentation I created helped Ann as well. The PowerPoint specifically stated how the strategy could benefit ELLs. This helped her connect new information to what she already knew about the ELL student she tutored. Because she had knowledge of how her student struggled with language, Ann better understood and made the connection to how strategy one could help benefit her student by showing her what is happening in the text. In her interview, Ann said of the strategy,

It is a good way of breaking down the text for students who may not understand how to infer based on what’s going on in the text. I thought this strategy was really good because I’ve actually been working with a family here from Ukraine, so my student speaks fluent Russian. I think this would be helpful for ELLs because they may not know what the text means at first.

Another example of how background knowledge promoted PSTs understanding came from strategy two (author’s attitudinal language), where three of the five PSTs made connections to previously learned concepts. In her exit ticket, Harriet wrote, “Determining how the author judged the characters was easy for us because we have practice doing so as experienced readers and in everyday conversation.” Olivia corroborated Harriet’s claim in her exit ticket, stating, “Identifying the descriptions and dialogue was simple because we were comfortable and familiar with this.” I can infer that since the implementation of the CCSS, students have been required to cite text evidence to support their answers, and as a result, my PSTs have had experience with this skill as K-12 students. Building on this existing knowledge stimulated a greater understanding of the strategy.

The final example that features how background knowledge promoted understanding was revealed in strategy three (reference and cohesion) when Harriet described how the strategy can
help struggling readers. In her exit ticket, Harriet wrote, “I remember that as a young reader when sentence structures started to get more complicated, I had to read back a lot to determine what nouns were being talked about.” The strategy instruction struck a chord with Harriet and her own struggles as a student. This knowledge about what it feels like to struggle with this skill served as a bridge in understanding why this skill should be taught to students.

On the other hand, data also confirmed that a lack of background knowledge inhibited PSTs’ understanding. An example comes from strategy one when PSTs had difficulty reconceptualizing what they knew about grammar, especially when attempting to identify the different types of verbs. Traditional grammar generally does not make distinctions between different verb types. When PSTs have difficulty understanding the different types of verbs (being, doing, sensing, and saying), this impacts their understanding of how verbs function, and most notably, which verbs show and tell a character’s feelings. The data corroborated this assertion that PSTs had difficulty in differentiating between verb types. In her exit ticket, Mary simply stated, “It was difficult remembering the names of the different process (verb) types.” Ann and Olivia were in the same group for this strategy and verified what Mary said in their exit ticket, writing, “I think it can be confusing for kids to do because even as college kids we had trouble understanding and remembering all the different types of verbs.” Harriet’s interview revealed this same understanding and how surprised she was about this, especially since using language in her native tongue came so easily to her.

For me, it’s hard to understand why some people need to decompose things this way because for me, as soon as I read I STOPPED DEAD IN MY TRACKS, this means that you’re being fearful or scared.

Lily summarized the perspective of all PSTs when she wrote in her exit ticket, “I think it was difficult given that we learned grammar in a completely different way.”
Other examples of how a lack of prior knowledge impacted student’s learning came from strategies five (nominalizations in informational texts) and six (long noun phrases in informational texts). These strategies were the most difficult for PSTs to grasp since they contained many concepts they had not been exposed to previously. Ostensibly, two PSTs acknowledged that because they were largely unfamiliar with these concepts, the strategies were challenging and helped them to see the challenges presented to students when reading complex texts. In her exit ticket for strategy six, Lily simply stated, “This activity helped us put ourselves in a student’s mindset.” Ann also noted the challenge of strategy five in her interview.

I remember when my group initially did this we hated it. We were wondering, “What are we even doing? How are we supposed to make this easier to digest?” It took us a while to figure out but in the end it was worth it because students do not understand what all these words are trying to say. So, translating it into easier to digest sentences was worth understanding.

It appeared that a lack of prior knowledge was the reason Ann struggled through the strategy, and this affected her understanding.

**Instructional Materials**

All five of the PSTs noted that specific instructional materials helped to increase their understanding. For strategy one, PSTs identified two types of instructional materials that they felt aided in their understanding, and by extension, the understanding of the students they would eventually be teaching. The first material was the table that PSTs used to analyze parts of the text (Figure 4-1). Olivia and Ann worked in the same group for this strategy, and in their exit ticket stated, “We like that this [the table] is very organized and allows kids to get personal with the text by breaking it down into further investigation. It allows comprehension to happen in a more detailed process.” Additionally, Harriet acknowledged that remembering the different verb types was difficult, but one slide in the PowerPoint that I created served as a scaffold for her during the activity. In her exit ticket she wrote, “It was easier to do when looking at slide 33 in the
PowerPoint because it laid out the different types of verbs, whether they were showing or telling, and gave examples.”

Moreover, two PSTs identified the table in strategy two (Figures 4-3/4-4) as advancing their understanding. In her interview, Lily said, “I really liked the chart, not even just for English Language Learners, but I think for kids who are really struggling with inferring.” Mary agreed with this, saying “You could put text in the chart and you’re able to get a better look at the different characters and their attitudes, and how they act in the story, so the chart was very helpful.”

In strategy four, two of the PSTs remarked how analyzing the student assessment benefitted their understanding about how they could better address problems with student comprehension. In her exit ticket, Harriet wrote about where they analyzed the student assessment: “We think that this would help teachers to pinpoint the source of student errors.” Ann agreed with this statement, writing, “The strategy taught us how to assess a running record not only for data purposes but to see how best to support a student.” These comments show how the materials in the student assessment helped to further the PSTs understanding of how students may struggle with the grammatical (structure) and language (words and phrases) patterns that make up text.

However, PSTs also said a lack of instructional resources, or scaffolding devices, also negatively impacted their understanding. The data from Ann and Olivia’s exit ticket for strategy one (verbs and inferring) suggested that more modeling of how to categorize the information into the chart was needed. They wrote, “The hardest part of this was figuring out the different types of verbs and putting [them] into the organizational table” (Figure 4-1). Harriet also identified a lack of resources to help scaffold her learning. She wrote, “The only difficult part of the strategy was learning all the different types of verbs and whether or not they were showing or telling,
then applying it all at once.” These data suggest that instructional materials played a pivotal role in whether the PSTs were able to make sense of the different strategies.

**Explicit Instruction and Practice**

Although strategies five and six were the most difficult for PSTs to understand, the PSTs indicated that the productive struggle of the activity benefitted their learning. Mary’s exit ticket provided an example for strategy five. As a result of working through the activity, Mary had a better understanding of how language works in text. In her exit ticket she stated, “We learned how we can manipulate language in order to make it more understandable for students. In the future, I can address abstract words and their meaning, but also show students how to change them so they’re easier to understand.”

Examples from strategy six (long noun phrases) were also found in the data. Strong evidence indicated that practicing the strategy helped PSTs to realize how language is the invisible tool that is traditionally largely ignored when teaching reading and comprehension. This is revealed by the simple statement from Ann and Lily’s exit ticket (they were in the same group for this strategy): “We know very little about the different types of language” [noun modifiers] Similarly, Olivia wrote, “We were surprised there were so many parts of a sentence. We did not realize how much went into language.” Although these PSTs did not use the correct metalanguage, or language for talking about language, regarding the different types of modifiers and clauses, it appeared that practicing the activity helped them to understand that the structure of language and the functionalities of the structural components.

Data also revealed that a lack of modeling and practice hindered PSTs’ understanding. Regarding strategy five, all PSTs articulated that they needed more explicit instruction and practice in recognizing nominalizations. Harriet wrote in her exit ticket, “We had trouble identifying the nominalizations in this strategy.”
Data also suggested that PSTs needed more modeling and explicit instruction for the part of the activity where they had to translate the text into a form more consistent with spoken language and in the activity where they identified who the actor was, or who exhibited agency, in the text. Olivia wrote in her exit ticket, “It was hard to determine how to rewrite the sentence in a simplified manner. This brought challenges as we struggled to condense the information within the sentence. Similarly, this made it difficult to identify who the actor was within each translated sentence.”

Olivia’s statement not only emphasized the fact that she needed more modeling to help her better understand, but it also stressed the connection between modeling and giving an appropriate amount of time for guided practice and gaining experience with the strategy with the help of a more knowledgeable instructor. This lack of time for further scaffolding was another aspect that PSTs felt hindered their understanding. Mary articulated this in her interview.

I would say the whole translation part was the part that was really confusing for myself. It was hard to put into words. I’ve never really done an activity like this, or really learned about it at all. So it’s very hard to translate the word and then state who the actor was. I would definitely need a lot more experience and practice with this for me to feel comfortable implementing it.

In short, the data clearly demonstrate that I needed to provide more modeling for my PSTs, and more time should have been spent in practicing the strategies.

**Opportunities for Group Work**

The opportunity to work in groups was another factor that affected PSTs’ understanding. Four of the five PSTs found group work to be valuable as they worked to understand the strategies. Mary stated in her interview, “My classmates helped me because we were able to share ideas with one another, and we all made sense of it together.” Olivia commented on how her group members for strategy three (reference and cohesion) helped her to slow down and pay more attention to each of the referring words she was overlooking:
It was actually funny because I was the group leader for this one. They were all
telling me at the same time that I was skipping over things. They would say, “Oh
you missed one.” That happened about two or three times because you just don’t
think about it, it’s just so automatic.

Harriet also found value in group work when her group members would help her to understand
aspects of the strategy that were confusing:

They helped me, certainly a lot of times to understand things that I didn’t
understand. My group members would come in and tell me that they did
remember how you explained it, and they would help a lot.

Finally, Ann, who was the most enthusiastic about group work, explained in her interview how
group work benefited her understanding in strategy one.

At first, I was really confused about what was showing and what was telling. I
was really bad at figuring it out. Olivia, who was in my group was really good at
it, which is how I kind of figured it out a little bit. I’m a huge group work person
because sometimes I just have a lot of questions and when there’s one teacher and
twenty of us, your question can’t always get answered by the teacher. So, when
you’re in group work, someone probably understands it. I can hear from a
classmate or peer and it just kind of makes sense.

Harriet expressed how she benefitted from group work, but she also reported that group work
had detracted from her understanding for one of the strategies. In her interview she said,

I sometimes think that I might have been able to better focus on the strategy, and
what I thought about it if I was working alone. Sometimes over Zoom it's just
hard, especially when you’re the group leader like I was for strategy three, and
you're just hearing crickets when you're asking a question. It feels like the
everyone just kind of has a bad attitude about the whole thing.

Olivia had a similar experience in her group for strategy six (long noun phrases). For this
strategy, group members were working from a Google Doc. Olivia had stated that her group had
a divide-and-conquer type of attitude to completing the noun deconstruction table. She reported,

We were all trying to work on it at the same time. So we're all just kind of
sticking it in two different rows. And I think that kind of also confused us because
we weren't working on the same sentence.
Though there were two instances in which group work adversely affected PSTs’ understanding, data suggested that group work more often provided support to student understanding.

**Instructional Delivery**

PSTs mentioned an issue with the online learning platform that disrupted their understanding. Due to COVID-19, our class had to meet synchronously on Zoom, and this had a direct impact on PSTs learning. One example of this impact can be observed in strategy three (referring words and cohesive texts). The first issue with having classes on an online platform dealt with the lack of a physical text to use throughout the strategy. Normally, strategy three would be done as a whole group, with the instructor guiding the PSTs throughout the text. Had this been a face-to-face class, I would ask my PSTs questions orally. However, this had to be changed for an online class.

Figure 4-14 is an example from Mary’s work and shows how I modified the activity using the annotation guide to help guide them through the text (see p. 141). Figure 4-15 is a snapshot that is also a part of Mary’s work and comes from Pearson’s Reading Street © small group reader *Paul Revere and the American Revolutionary War* by Patricia West (see p. 142).

As can be seen from Figure 4-15, PSTs underlined an original phrase and then identified how the phrase was summarized and repackaged using a determiner (e.g., *THIS VIEW*), drawing an arrow back to the original phrase to which it refers. Because we were using an online platform, I had to designate one person as the team leader. They would download the documents and then share their screen with group members in their breakout rooms. The document was created on Word, so the team leader could use the shape tools to annotate the text. Lack of a physical text and annotation tools, as well as being unable to complete the activity in a discussion format, undoubtedly constrained PSTs understanding. Four of the five PSTs voiced displeasure with how they had to annotate the text. Ann wrote in her exit ticket, “This form of
practice was messy. Using Word was not a clean and comfortable way of annotating the text. It would be better if the article was printed out, or if the students were able to add post-its to the article instead.” Mary agreed with Ann’s thinking. In her interview she said,

It could get a little jumbled at times, and there was just a lot of writing on the paper and could get a little confusing. So, I would maybe do a worksheet on the side, broken up into paragraphs, that would say what the text was talking about, and have students write it out that way because it could get confusing with the arrows, circles, and highlighting.

Olivia also offered an alternative to the way the annotation was done in the activity: “We thought highlighting might be a more effective way to show connecting topics because it covered up words and looked busy.” Finally, Harriet said, “I like the idea of printing out an actual text. That’s what I would do.”

Completing the strategy in a face-to-face class with a physical text would be the ideal situation but learning still needed to occur in an online platform. Issues such as these, however, need to be addressed with online learning becoming more commonplace due to the pandemic.

Conclusion

Chapter 4 documented PSTs’ understanding of SFL strategies taught to them in a semester-long intermediate reading methods class. The PSTs developed an emergent understanding of the SFL strategies despite facing considerable challenges in learning these strategies. Their successes or challenges in learning were impacted by the degree of familiarity with the linguistic concepts introduced, the amount of instructional support provided, the opportunity provided for group work, and the mode of instructional delivery. Regardless of how much they learned in the course, the PSTs as a whole saw value in the SFL strategies, especially in relation to ELLs and struggling readers, and had concerns about their implementation due to a dearth of opportunity to practice these strategies in authentic classroom settings and a lack of
deep understanding about these the concepts integral to the implementation of the strategies.

These findings have important implications, which will be discussed next in Chapter 5.
Paul Revere and the American Revolutionary War Annotation Guide

1) Page 4. Underline Paul Revere. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to Paul Revere.

2) Page 5. Underline The French and Indian War. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to The French and Indian War.

3) Page 5. Underline the land they held west of the Mississippi River. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to the land they held west of the Mississippi River.

4) Page 6. Underline the colonists should pay for the cost of the war. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to the colonists should pay for the cost of the war.

5) Page 6. Underline wanted the colonists to help pay for the costs of defense and government. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to help pay for the costs of defense and government.

6) Page 7. Underline the Sugar Act. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to the Sugar Act.

7) Page 7. Underline the Stamp Act. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to the Stamp Act.

8) Page 9. Underline Daughters of Liberty. Then, draw arrows to pronouns, nouns that rename, or nouns with determiners that refer back to Daughters of Liberty.

Figure 4-14. The Annotation Guide for Strategy Three
King George III was the ruler of Britain, the thirteen American colonies, and other British colonies around the world. He ruled from 1760 to 1820, longer than any other British king.

The British were angry too, but for a different reason. The war had put them deeply in debt. They thought the colonists should help pay for the cost of the war. After all, the war had been fought partly to protect the colonies. But the colonists did not share this view. The British also wanted the colonists to help pay for the costs of defense and government. This demand was no more popular than the first one.

Figure 4-15. Mary’s Work for Strategy Three
CHAPTER 5
DISCUSSION

The purpose of this dissertation was to examine how preservice teachers (PSTs) made sense of systemic functional linguistics (SFL) strategies that were embedded into an intermediate reading methods course. Five PSTs in the reading methods course participated in this study, which helped me gain an in-depth understanding of (1) how they made sense of each strategy, (2) what they viewed as benefits or concerns about enacting the strategies in their daily reading pedagogy, and (3) what factors they identified as either promoting or hindering their understanding of the strategies. The results, I believe offer significant contributions to the small, yet growing literature base on how PSTs learn SFL in an American context. This study also offers important insights for teacher educators who want to include SFL in their coursework, highlighting the important instructional, contextual, and teacher education program factors that must be considered when planning and implementing SFL into coursework.

The findings from this study show that PSTs exhibited a budding understanding of the strategies. PSTs also found benefits of the strategies, such as their applicability for use with both struggling and English Language Learners (ELLs), how they can be used to meet curricular goals and standards, and their ability to make grammar instruction both authentic and visible in the classroom. However, the PSTs also had concerns regarding the strategies such as doubting the need for the strategies for all learners, and questions regarding their implementation in the classroom.

Factors were also found that impacted PSTs’ understanding either positively or adversely depending on the strategy. These factors include prior knowledge, instructional materials, explicit instruction and practice, opportunities for group work, and instructional delivery. These
findings prompted me to rethink the framework and add elements to it that I had not originally considered at the outset of the study.

In the following sections, I will introduce and discuss the enriched framework and explain how this study’s findings led to the addition of three new factors. Then, I will discuss the implications that the study has on teacher education programs, teacher educators, and future research regarding the design and implementation of SFL-based reading pedagogy.

The Conceptual Framework Reconsidered

The elements of my original conceptual framework provided me with crucial understanding of how reading models influence approaches to teaching reading, and what factors, such as prior experiences, influence how teachers acquire knowledge. Understanding the evolution of the different models of reading and how the emergence of interactive models influences current approaches helped me understand how my PSTs were being trained in their teacher education program. I knew my PSTs would be well versed in teaching the Fab Five (phonological/phonemic awareness, phonics, fluency, vocabulary, and comprehension strategies). I also knew that because my PSTs had limited knowledge in and of practice, they may not have first-hand knowledge about how some of the Fab Five do little to help students overcome comprehension problems, especially in intermediate grades. Finally, the framework helped me to understand that my PSTs would not come to me as blank slates, and factors such as their K-12 experiences, beliefs, and assumptions may shape their understanding. Figure 5-2 (at the end of Chapter 5) shows the enriched conceptual framework. Findings from this study helped me to recognize the significance of 3 factors that should be added to the conceptual framework: Teacher Preparation Program, PST Factors, and Contextual Factors. Each of these factors had an impact on how PSTs developed their knowledge for, in, and of practice.
**Teacher Preparation Program**

The Teacher Preparation Program factor addresses how teacher education programs might redesign their coursework to embed language based pedagogies, such as SFL, in reading and literacy classes, in addition to giving PSTs an opportunity to connect theory with practice through meaningful assignments that can be done with their students in their field placements and student teaching experiences.

There were factors related to the design of the teacher education program that certainly impacted my PSTs’ learning. First, reading instruction in the teacher education program heavily emphasized the Fab Five. My PSTs came to me with prior knowledge of these components from the K-2 reading methods course they took a semester prior. This undoubtedly shaped how my PSTs’ believed reading should be taught.

There was also the issue of course design. Because I was a graduate assistant (GA), I was not the designer of the intermediate reading methods course. I was given permission by my supervisor to incorporate the SFL strategies into the class as part of this study. This reading methods course was originally designed to emphasize the Fab Five components that are directly aligned with the state reading competencies.

The final issue related to the design of the teacher education program was that my PSTs had no prior coursework in their teacher education program on the relationship between language and reading. Data showed that some PSTs were learning, for the first time, certain language concepts, such as nominalizations from strategy five (nominalizations in informational texts) and clause types from strategy six (long noun phrases). Perhaps if the PSTs had entered this course with prior knowledge regarding the role language plays in reading and a common metalanguage for talking about language and text, they would have exhibited a greater understanding of the linguistically-informed strategies I introduced. These factors, coupled with the fact that my PSTs

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had limited knowledge in and of practice to draw from, led me to understand that PSTs may not have realized that the relevance or a necessity of a more language-focused approach to reading instruction, particularly for intermediate grades.

**PST Factors**

PST factors address the knowledge and beliefs PSTs bring to the learning process and are important to consider when designing coursework for them. There were several factors related to PSTs that influenced what they learned and how they learned in my study. One example was their receptiveness and beliefs about trying the strategies. Four of the five PSTs found value in the SFL strategies and began to think about language differently. In Harriet’s summative reflection she wrote, “The SFL strategies that we learned about over the semester made me think about language in a way that I never had. Examining the features of language and grammar really helped me to understand why students can get so confused, especially English language learners.” It appears that SFL instruction showed Harriet how language difficulties can be the source of reading comprehension difficulties. Olivia stated something similar in her summative reflection. She wrote, “The SFL strategies made me think about language in a completely different light. I never thought about how to teach students who are still developing their lexicon.” I know that Olivia’s teacher preparation program has taught her a great deal about the Fab Five and she knows how to teach phonics and vocabulary well. What I infer from Olivia’s statement is that she did not realize that teaching language went beyond word-level instruction and that SFL strategies helped her realize this.

Another example that emerged from the data was how PSTs struggled with grammar, most likely because of their K-12 grammar experiences. While PSTs could identify parts of speech, they struggled with understanding grammar beyond the word level. This became apparent in both Olivia and Lily’s exit tickets for strategy 6 (long noun phrases). Olivia wrote,
“We know very little about the types of language”, while Lily wrote, “We were surprised that there were so many parts of a sentence. We did not realize how much went into language.” These statements show that the PSTs lacked not only a metalanguage for talking about language and text but also basic knowledge about the forms and functions of grammar. These data helped me to realize that the knowledge, beliefs and experiences my PSTs brought with them influenced the findings of this study and should be kept in consideration when designing coursework for them.

**Contextual Factors**

Contextual factors address issues with the instructor, instructional methods and resources, and modes of delivery, which should also be carefully considered when designing coursework for PSTs. These factors certainly had an effect on the findings of this study. As the instructor, hindsight revealed that I had a direct impact on PSTs’ learning. Through reflection, I recognized that my own understanding of SFL grew throughout the study. I now know there were times throughout the study that my explanation of certain concepts may have led to PSTs’ misunderstandings. For example, the concept of nominalizations (strategy five) was difficult for PSTs to understand, mainly because of their inexperience with the concept. As I thought about my conceptual framework, my intent was to help PSTs develop their knowledge for practice. This involved learning the metalanguage used in teaching about nominalizations. In an effort to connect the new metalanguage used with teaching strategy five (nominalizations) and the metalanguage they already knew (scientific vocabulary), I confused my PSTs. This is evidenced in Anne’s exit ticket where she wrote, “This activity was difficult, [for it’s hard] to differentiate the nominalizations and vocabulary.”

Another instructional factor involved my pedagogy. Shulman (1986) suggested that it is not enough for educators to demonstrate content knowledge, they must also know how to deliver that content well. These include forms of representation such as analogies, illustrations,
examples, explanations, and demonstrations. Using forms such as these can make SFL subject matter more comprehensible to my PSTs. A lack of knowledge of pedagogy leads to what Shulman (1999) called the “epidemiology of mislearning, or taxonomy of pedagogo-pathology” (p. 12). There are three pathologies he talks about in this taxonomy: amnesia, or we forget, fantasia, or we don’t understand that we misunderstand, and inertia, or we are unable to use what we learned. Data show that two of these pathologies affected my PSTs’ learning. First, data show that inertia occurred in strategy six (long noun phrases). Ann, who expressed having difficulty in learning and remembering the different modifiers, stated she had difficulty in putting everything she learned together to recognize long noun phrases in text. In her exit ticket, she wrote, “It was difficult to apply our knowledge to text.” I can infer two things from Ann’s statement: (a) because noun modifiers were new concepts for PSTs and given the limited time allotted to learn the strategy, PSTs spent most of their instructional time making sense of the noun modifiers, leaving little time to apply what they knew about noun phrases to the text they needed to deconstruct, and (b) if I had spent more time explaining each modifier and how to break down long noun phrases by giving them more examples, they would have been more comfortable with long phrases. Then, they might have been able to apply their new understanding to deconstructing the text. Another pathology that emerged from the data was fantasia. All five PSTs expressed that at least one strategy was tedious. I discussed this with Lily, who stated, “We didn't get this [our work] back right away. So we're just giving you this [our work], and we don't get to know our information [feedback]. So, this is something that we think we knew when we didn't. If we're getting it wrong, then obviously we would pay more attention to it.” Indeed, it was true that I didn’t give my PSTs feedback on their work. My intent was to collect work and then analyze it as data for this study. Because I had not thought about the instructional
implications of this decision, I gave my PSTs a false sense that they knew more than they did about the strategies. Lily’s statements helped me understand the importance of offering different types of feedback, including immediate oral feedback during guided practice, in addition to written feedback on their work so that PSTs can reflect on their own work and learning.

Instructional materials and the use of group work were also instructional factors that influenced PSTs’ understanding and served as scaffolding for PSTs’ learning. There are several examples from the data that illustrate this influence. The first example comes from strategy six (long noun phrases). I knew this strategy would be difficult, so I provided a handout containing examples of the different noun modifiers for the PSTs. Though she didn’t quite have the metalanguage to express what each of the modifiers were, Mary communicated that the handout aided in her learning. In her interview she said, “We did have that worksheet with examples of each of the clauses which was very helpful.” In the same manner, Ann explained that she did not remember learning many of the different types of modifiers as a student. The handout helped her to deconstruct the long noun phrases so she could put them in the table. In her interview she stated, “I had to refer back to the cheat sheet and the examples that explained all of them, which was very helpful because I didn't know all of them. I was constantly looking back at that cheat sheet so I could put them [the different modifiers] in the right boxes.”

Group work was another form of scaffolding that supported how PSTs understood the strategy. Mary stated that working in groups helped in her understanding for strategy one (verbs and inferring). In her interview she said, “My classmates helped because we were able to share ideas with one another, and we all made sense of it together.” Providing scaffolding supports within lessons was something PSTs reported as aiding their understanding and helped me teach
new content while also allowing me to differentiate instruction within authentic reading tasks (Clark & Graves, 2006).

Finally, there were contextual factors relating to the mode of instructional delivery that impacted my PSTs’ learning. The semester in which this study took place was far from ordinary. This study took place in the Fall of 2020 and we were in the midst of the COVID-19 global pandemic. There were several issues that appeared regarding COVID-19. The first issue was that some of the PSTs had difficulty being on a Zoom platform for a 3-hour class session. Additionally, some of the PSTs saw the strategy lessons as being less important than the content required for teacher competencies. Lily mentioned this influenced her learning, saying “I wasn’t sure I had to focus deeply on the first PowerPoint [content for competencies] or second PowerPoint [strategy lessons]. By the time the whole class was over, I was just mentally exhausted.” In Harriet’s interview, she stated that Covid affected her because not having the structure of having to be on campus and having to create a schedule for herself was challenging.

Furthermore, because of Covid-19, elementary school children had to attend school from home using an online platform. As a result, my PSTs’ face-to-face field placements were canceled. This impacted PSTs’ learning as well. Harriet said in her interview, “I just wish there could have been a practical experience that was more tied to our class content.” It is clear that Covid had an effect on my PSTs and their learning.

**Implications for Research and Practice in Teacher Education**

**Implications for Designing Preservice Teaching Programs**

Preservice teacher education programs are designed with the intention of preparing teachers to teach reading well so that they can maximize outcomes in reading achievement with diverse sets of students. The literature review for this dissertation revealed that the current approach to teaching reading has done little to improve student reading achievement. Thus, it is
important to go beyond the Fab Five to include a more language-based approach when teaching reading. After all, reading is an activity mediated through language. Thus, it is critical that teachers understand the role language plays in reading acquisition and the teaching of reading. Schleppegrell (2004) pointed out that even though language is at the heart of the learning process, it is the element of learning “that is most unanalyzed and least often explicitly addressed” (pp. 22-23). And because learning involves “languaging” (Halliday, 2016, p. 1), the more that is understood about the process of learning, the likelihood of people learning in more effective ways increases. Despite the importance of language to understanding and teaching reading, it remains at the peripheral of many teacher education programs, with the consequence that many reading teacher candidates lack essential knowledge about language and confidence to teach language-based strategies.

Findings from my study support the need to consider how preservice teacher education programs can restructure or realign reading courses within the program so that reading coursework embraces a functional focus on language. There are several aspects that can be considered when restructuring. The first consideration is what linguistic content to include in coursework. Researchers such as Love, Macken-Horarik, and Horarik (2015) and Myhill (2012) argue that any pedagogy must include strong linguistic subject knowledge. Fang (2020a) states that this knowledge should include three key aspects: (a) the understanding that language varies across academic subjects, (b) the ability to identify and explain the language features that are characteristic of different academic genres, and (c) control over the use of metalanguage for engaging students in explicit instruction about how language is used across the different text types that students read and write. One way to include these aspects in programming may be to include a course on the linguistic foundations of reading before the reading methods coursework.
Another consideration is how classes may be sequenced and streamlined so that PSTs can make connections between what they are learning across courses. Several studies have shown that successful teacher education programs avoid fragmentation and provide coherence among coursework (Darling-Hammond, 2006a, 2006b; Fenwick, Endicott, Quinn, & Humphrey, 2014; Hardman, 2009; Villegas & Lucas, 2002). One way to do this could be to investigate the synergy between concepts learned in reading and ESOL [English Secondary to Other Languages] coursework. A focus on language tends to be more natural in ESOL courses; however, making language connections between the two courses could have positive impacts on PSTs’ learning experiences. Restructuring teacher education programs in these ways can better prepare PSTs to teach reading to diverse groups of students, which in turn can lead to higher student achievement in reading.

**Implications for Teacher Educators’ Practice**

This study also has implications for teacher educators’ practice. The first implication for teachers wanting to embed SFL content into reading coursework is to become knowledgeable in SFL content. This requires teacher educators to continue to develop their knowledge for practice. There are many resources teacher educators can use to help them to continue to grow in their knowledge of SFL. These resources range from understanding the basic concepts and tenets of SFL (e.g., Eggins, 2004; Martin & Rose, 2008; Martin & White, 2005; Schleppegrell, 2004) to teaching grammar in context (Christie, 2005, 2012; de Oliveira & Schleppegrell, 2015; Derewianka, 1990, 2015; Derewianka & Jones, 2018). There are also many resources for teacher educators to learn more about how SFL can be applied to the teaching of disciplinary literacy across curriculum subjects of reading, language arts, science, mathematics, and history (Brisk, 2015; Fang, 2020a, 2020b; Fang & Schleppegrell, 2008; Rose & Martin, 2012).
The second implication for teacher educators is to investigate ways of relating SFL content to existing reading practice. It is important to show that a more language-based approach can, like other approaches, contribute to achieving the goals of reading instruction. More specifically, teacher educators must be able to show how SFL strategies can be integrated into the existing course structure in ways that help achieve the reading competency outcomes of their teacher preparation program. For example, teacher educators can show PSTs how the use of SFL strategies can help children improve fluency and comprehension in ways that go beyond what the Fab Five are able to accomplish.

The final implication for teacher educators is to recognize and plan for what PSTs bring to the learning process. It has been found that teacher’s beliefs tend to shape their instructional practices (Dos Santos, 2018; Fang, 1996). However, there has been research done (Basturkmen, Loewen, & Ellis, 2004; Farrell & Lim, 2005) that shows a disconnect between teacher’s beliefs and practices. It has also been established through several studies (Brookhart & Freeman, 1992; 1998; Cumming, 1989) that PSTs may enter their teacher education programs with “inappropriate, unrealistic or naïve understandings of teaching and learning” (Borg, 2003, p. 88). For these reasons, it will be important for teacher educators to help PSTs identify their own beliefs about teaching reading and how it may affect their practice. Additionally, capturing data on PSTs’ beliefs such as through the use of a survey (Knudson & Anderson, 2000) can help PSTs identify and confront their preconceived beliefs and “provide teacher educators a platform on which to build new information that preservice teachers will need in order to be effective in the classroom” (Barnyak & Paquette, 2011). Part of identifying and confronting PSTs’ beliefs, especially as they relate to the role of language in reading, can be done through the use of
meaningful instructional activities (Asselin, 2000; Borko & Putnam, 1996; Freeman, 1991) such as the SFL activities described in this dissertation.

**Implications for Research in Teacher Education**

The study points to several areas of research that teacher educators could explore in future studies. The first study teacher educators might undertake is the investigation of what PSTs currently know about grammar, language, and the teaching of reading and how to build SFL curriculum that bridges their current knowledge with SFL objectives. Another study teacher educators might consider is investigation in PSTs’ attitudes toward grammar and teaching grammar in authentic contexts. Data from the PSTs in this study show their K-12 experiences in grammar instruction ranged from tedious to forgettable. Several researchers (Fang, Lamme, & Pringle, 2010; Moore & Schleppegrell, 2014; Unsworth, 2005) have argued that language can be taught in fun and engaging ways. Studies of how PSTs learn grammar in engaging ways could produce fruitful results regarding how grammar could be taught meaningfully and in context. A final area for possible research may be an investigation into how SFL assignments can be embedded into field placements and the impact this knowledge in practice may have on PSTs’ learning and perceptions of the strategies.

My study also points to several areas of research that focus on teacher education programs. Data from my study show that time was a factor that impacted PSTs’ learning. As a result, a study that investigates how a teacher education program might foreground the role of language in teaching and learning, and how it might impact PSTs may offer critical insights in program design. More specifically, my study investigated PSTs’ learning in the context of an intermediate reading methods course. Further investigations can look into how PSTs learn SFL strategies in other contexts (e.g., a K-2 reading methods course, an advanced reading methods
course, a course of its own) may help teacher educators understand the best context in which to infuse SFL.

Data from my study also showed that PSTs found the SFL strategies to be most beneficial for struggling readers or English Language Learners (ELLs). Oftentimes, when students struggle with language while reading, the assumption is that students are either learning disabled or ELLs. One study that may contribute to the field of teacher education could be to examine how PSTs make sense of mainstream, native English speaking students’ reading and writing behaviors. Results from this study could possibly lead to PSTs seeing a need for SFL strategies for all students.

A final possible study may be to follow PSTs from their teacher education programs to the teaching field. The study might examine if PSTs continue to use SFL strategies, or if they abandon the use of these strategies in their early years of teaching. Results from a study like this could help researchers think about ways to build bridges between teacher preparation and continuing professional development coursework.

**Conclusion**

The purpose of this dissertation was to investigate how PSTs made sense of SFL strategies, whether they found them useful in teaching reading, and what factors served as either promoting or detracting from their understanding. This study was prompted by the recognition of the limited number of empirical studies examining how PSTs learn SFL in the context of learning to teach reading. As this dissertation has tried to show, current approaches to teaching reading, such as the Fab Five, have done little to increase student reading achievement. Additionally, large-scale, federal reading initiatives have largely ignored adolescent literacy instruction. Beginning in the intermediate years, texts that students encounter are constructed using language that is more complex and thus foreign to students. Teacher education programs
need to prepare PSTs to help their students cope with the increasing language demands of content area reading. My study represents an attempt in this direction.

My study show that PSTs were interested in but struggled with learning SFL reading strategies. Their successes and missteps in understanding were influenced by their background knowledge of the SFL concepts, the amount of support provided by the instructor during the learning process, and access to scaffolds such as instructional materials and the opportunity for group work. These findings offer preliminary insights that can inform subsequent efforts to design and deliver courses and programs that embrace a language focus and maximize teacher candidates’ preparedness for effective reading instruction.
Figure 5-1. The Original Conceptual Framework
Figure 5-2. The Enriched Conceptual Framework
APPENDIX A
INFORMED CONSENT FORM

Dear Student,

I am a doctoral student in the School of Teaching and Learning at the University of Florida interested in understanding more about how pre-service teachers make sense of using reading strategies grounded in systemic functional linguistics (SFL) as part of their reading instruction. (UF IRBXXX). I invite you to be part of this research. If you agree, I will collect the following kinds of data:

- **Artifacts**: I may collect work or other materials such as graphic organizers, lesson plans, reading responses, and class activities you produce over the course of the semester.

- **Observations**: I may take notes during face-to-face meetings of RED 4324 to document how you think about and respond to SFL instruction and activities.

- **Interviews**: One-on-one interviews may be conducted to gain insight into your perspectives on and experience in this course. These interviews will take no longer than 60 minutes and will be scheduled at your convenience. Interviews will be audio recorded and transcribed. Recordings are to ensure accuracy of notes and will be destroyed after transcription.

Analysis of data will not take place until the conclusion of the course. The instructor will be blinded to who consents to participate and all data collected for the study until the conclusion of the course. To prepare for analysis, identifiers from all data will be removed. Student names will be replaced with pseudonyms on all class work. The names of instructors and students involved in the research will not be included in any written or oral presentation of this work. It is highly unlikely that you will be identifiable in any presentation of this research. However, even with the use of pseudonyms, it is possible (though unlikely) that someone would be able to guess the identity of participants in this study.

There are no anticipated risks to you as a participant in this research. There are no direct benefits to you for participating in this study. You are free to withdraw your consent to participate and may discontinue your participation in any part of this research at any time.

If you have any questions about this research protocol, please contact me at 352-260-XXXX.

If you are interested in participating in this research, please sign and copy and return it to me. You will be given a copy for your records.

Sincerely,

Valerie Gresser
Interview Protocol

Interviews are semi-structured with opportunities for follow-up questions as necessary.

Thank you for being willing to participate in this interview. What I am trying to explore in this interview is how my students make sense of learning the SFL strategies we learned about this semester. I’d also like to probe into how some of your past educational/literacy experiences may play into your beliefs about teaching reading. I am not looking for “right answers” here. I am most interested in your story. You are the author of your life story so please feel free to tell it. You are not required to answer any of the questions you don’t want to answer. Also, will it be OK if I record our interview so I can transcribe it later? I want to make sure I get your story correct.

Interview Part 1 Protocol – reflecting on your history and the beginning of the semester:

1. Tell me more about your journey to becoming a teacher.
2. What were some of your K-12 experiences learning to read? What did your teachers do to help you become a reader? Were your parents/others involved in teaching you to read? If so, what did they do?
3. What about grammar and language? What did you think of grammar as a student?
4. What role did you think language played in the teaching of reading at the beginning of the semester?
5. Let’s look at some of our class activities from the beginning of the semester (PST is looking at the class activities they did). I’ll let you look at your work from the first one. We learned about how to look at verb types to teach inferring. Is there anything that stood out to you as you were learning these skills and doing the activities? Was there anything novel? Easy to understand? Difficult for you?
6. Did you notice connections between what we were studying early on this semester and what you studied last semester in Primary Reading? Tell me about this. Maybe you noticed differences between what you studied last semester and this semester. Tell me about this.
7. Let’s look at your work from strategy 2. We learned about how author’s create dynamic characters by learning about affect, evaluation, and judgement by looking for clue words and phrases to “see” a character. What did you think of this activity? What was easy/difficult?
8. We then moved on to strategy 3 where we learned about referring words. Here is your work for that. Did anything stand out? Was there anything that was especially easy or difficult for you?

Interview Part 2 Protocol – reflecting on the middle of the semester

9. Do you remember what makes science and social studies difficult for students to learn? Tell me about this.

10. Let’s look at your work for strategy 4 where we learned about phrasal chunking. What were your impressions of this strategy? Was there anything that was especially easy or difficult for you?

11. Then we moved to strategy 5 where we learned about nominalizations and writing in passive voice. Tell me about your thinking regarding this strategy? Did you have trouble with anything? Was anything easy for you?

12. Let’s look at our final activity on noun phrases where we learned about the different parts of a noun phrase and deconstructed them in text. Tell me your thoughts on this strategy. Did you run into trouble with anything? Did you find anything especially easy for you?

Interview Part 3 Protocol reflecting on the end of the semester:

13. Tell me about some significant things you’ve learned about teaching reading this semester.

14. Did you find anything beneficial in the strategies? What stood out to you the most?

15. What are some of the big takeaways you’ve learned from this class?

16. What role does language play in the teaching of reading?

17. What might have helped you learn better in this class?

18. What helped you to learn in this class? Readings? Activities? Lesson planning? Other?

Thank you so much for your time. I really appreciate hearing your story. I am going to go back and look at our recording and transcribe our interview. I will then begin to analyze my data. Once I have my initial findings, we will sit down together over Zoom and you can read how I have interpreted your story. At that time, you can tell me whether I have interpreted correctly or not, and I may need to make changes based on what you think.
LIST OF REFERENCES


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BIOGRAPHICAL SKETCH

Valerie Gresser graduated from Arizona State University with a Bachelor of Arts in elementary education in 1998. She received her master’s degree in elementary education in 2001 from Northern Arizona University. She taught first, second, and fourth grades as well as reading and math intervention in Arizona, Kentucky, and Tennessee from 1999-2017. Always seeking ways to improve her practice, Valerie became a National Board Certified Teacher in 2007 as an Early Childhood Generalist. She has served as a Common Core coach with the Tennessee Department of Education and as a first grade Master Teacher with the National Education Association Better Lesson project. Valerie has presented at various national and international conferences including the Literacy Research Association (LRA), American Reading Forum (ARF), and the International Systemic Functional Congress (ISFC). Valerie received her doctorate from the University of Florida in 2021 with a focus in reading and literacy education. Her research interests include language and literacy education, functional linguistics, and teacher education.