A MULTI-SITE CASE STUDY OF CONCEPT OF WORD INSTRUCTION IN KINDERGARTEN CLASSROOMS

A Capstone Project

Presented to

The Faculty of the Curry School of Education

University of Virginia

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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by

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May 2017

EXECUTIVE SUMMARY

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Introduction

Research suggests early literacy intervention and high quality literacy instruction in the early elementary grades as a means to address and reduce the prevalence of underachievement in reading (Snow, Burns, & Griffin, 1998; National Early Literacy Panel [NELP], 2008). In an effort to determine the components of effective early literacy instruction, a large-scale review of research identified the component skills predictive of later reading achievement (NELP, 2008) Additionally, research indicates the component skills should be taught in a developmental fashion (Ehri, 2005; Henderson, 1980) and integrated in authentic contexts (Pressley et al., 2001; Xue & Miesels, 2004) to have the greatest impact on student outcomes. One little recognized skill, concept-of-word-in-text, subsumes all the necessary component skills, is taught in a developmental fashion, and is integrated in authentic experiences. Research recognizes the attainment of concept-of-word-in-text as a pivotal event in learning to read as it facilitates the transition from nonreader to conventional reader.

Purpose

Research suggests a firm concept-of-word-in-text (COW-T) is important to the development of word recognition (Flanigan, 2007; Henderson, 1981; Morris et al., 2003; Morris, 1993) and ultimately to the transition from emerging to beginning reading. While the empirical research provides support for the importance of COW-T in early literacy instruction, little is known about COW-T instruction in kindergarten classrooms. The purpose of this study was to examine small group literacy instruction in nine kindergarten

classrooms specifically focused on COW-T instruction and COW-T instructional methods. Three literacy perspectives, the component skills perspective, the developmental perspective, and situated literacy perspective guided the study.

Methodology

The study was structured as a multi-site case study of nine kindergarten teachers in two rural schools in two school districts. The study employed secondary analysis of archival data from a larger research project focused on kindergarten teachers' use of literacy data that included observations, think aloud interviews, and lesson plans. From the larger project, participants were purposefully selected as those directly observed by the researcher. An additional interview with a consultant that had worked with the districts provided historical and contextual information. Data analysis consisted of a three-step iterative process of data condensation, data display, and drawing conclusions. To ensure trustworthiness, the study was designed to address credibility, transferability, dependability, and confirmability.

Findings

The analysis led to one main finding that encapsulated the three literacy perspectives guiding the study:

Teachers at both schools planned for and implemented small group instruction that addressed the necessary component skills indicated in Morris' (1993) model for achieving a COW-T. They utilized current COW-T instructional methods, but provided limited opportunities for social application of learning. Evidence for differentiated instruction according to students' developmental literacy stage was weak and inconsistent.

Implications and Recommendations

The implications of the finding led to three recommendations. The recommendations build on existing practices and structures regarding COW-T instruction and the extent teachers address all three literacy perspectives. The recommendations are as follows:

1. Small group instruction should be further differentiated to reflect student's developmental needs in the component skills.
2. Teachers should continue to utilize the whole-to-part instructional approach for COW-T, but instruction should be further differentiated to address students' developmental level of COW-T.
3. Instruction should be situated to help students understand *why* they are doing a specific task and *how* that task will help them become conventional readers as well as position students as agents of their own learning.

In an effort to provide recommendations for future and practicing teachers in regards to differentiated instruction, recommendations addressed ways to provide professional development and structured experiences for learning and applying knowledge.

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APPROVAL OF THE CAPSTONE PROJECT

This capstone project, ("A Multi-Site Case Study of Concept of Word Instruction in Kindergarten Classrooms "), has been approved by the Graduate Faculty of the Curry School of Education in partial fulfillment of the requirements for the degree of Doctor of Education.

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DEDICATION

This capstone project is dedicated to my parents, Jim and Debbie Cox, who instilled in me a strong work ethic and always encouraged me to give everything my all. I would have never made it this far without you. I love you!

ACKNOWLEDGEMENTS

This capstone project and my doctoral studies would not have been possible without the help and dedication of several people I want to recognize and thank.

To the teachers who participated in the larger project, thank you for your willingness to open your classroom doors for observation.

My advisor, Dr. Marcia Invernizzi, who always offered support, guidance, and feedback with passion while always providing the extra push I needed to keep going. Thank you will never be enough for all that I have learned from you!

Dr. Tisha Hayes, for always being my cheerleader, a wonderful mentor, and a passionate teacher. Thank you for the opportunity to work with and learn from you. The lessons I learned from you are countless!

Dr. Catherine Brighton, who provided a wonderful experience working on the larger project and offered invaluable guidance, feedback, and expertise while working on the capstone project. Thank you for your support!

To all my Curry colleagues, especially Stefanie Copp and Jordan Buckrop, thank you for your encouragement and support. This journey was all the better because of you!

To my family, thank you from the bottom of my heart. I could have never done this without you. From cleaning, to babysitting, to mowing our yard, cooking us dinner, and all the little things in between, it all made this journey possible.

To my daughter, Kennedy, I never knew I could love someone as much as I love you. Always remember, you can do anything your heart desires!

And last, but not least, my husband Chris, without your loving support, strong shoulder, and constant encouragement I would have never finished. I love you.

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Chapter I: Introduction

One of the most monumental accomplishments of students in their early school career is learning to read. The importance of establishing at least a minimum level of reading ability for all learners cannot be underemphasized. According to the most recent data from the National Assessment of Education Progress (U.S. Department of Education, Institute of Education Science, National Center for Educational Statistics, National Assessment of Educational Progress [NAEP], 2013) in 2013, approximately 32 % of fourth grade students read below basic levels of achievement. The Basic level of reading for a fourth-grade student is defined as the ability to read grade level text and apply a basic level understanding of comprehension strategies to make inferences, use textual information to support conclusions, and use context clues to determine word meanings (U.S. Department of Education, Institute of Education Science, National Center for Educational Statistics, National Assessment of Educational Progress [NAEP], 2013). This concerning statistic demonstrates a pervasive level of underachievement in that nearly one third of our fourth graders are not able to read at even a basic level.

Researchers and educators alike recognize the importance of early literacy intervention and high quality instruction to help prevent pervasive underachievement in reading achievement in the United States (Snow, Burns & Griffin, 1998; National Early Literacy Panel [NELP], 2008). The concerning level of underachievement and the importance of early literacy instruction to increase reading achievement is well illustrated in a longitudinal study of reading in students from kindergarten to ninth grade (Francis,

Shaywitz, Stuebing, Shaywitz, & Fletcher, 1996) indicating that students still demonstrating poor reading achievement by third grade often fail to "catch up" to the reading achievement of their average performing peers. For decades research has revealed that instruction has direct influences on the trajectory of student learning. Research findings indicate instructional differences influence student performance in reading (Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998), appropriate primary grade instruction can reduce the prevalence of underachievement in reading (Foorman et al., 1998; Mathes, Torgesen, & Allen, 2001; Snow et al., 1998), and a integrated approach to early literacy instruction produces greater achievement outcomes (Xue & Meisles, 2004). While it is recognized that many environmental and experiential factors affect early literacy development for young students, the instruction students receive, once in formal schooling, is one of the most influential sources on literacy development (Connor et al., 2009). Snow et al. (1998) state that, "Research affirms that quality classroom instruction in kindergarten and the primary grades is the single best weapon against reading failure" (p. 343). Recognizing the importance of early literacy instruction also requires acknowledging what constitutes high quality, effective instruction that is critical for addressing the pervasive levels of underachievement in reading from the outset of formal schooling, as children enter kindergarten.

There are many aspects to consider when defining effective early literacy instruction, including effective practices and necessary components. In a series of studies, Pressley and colleagues, set out to better understand the practices of effective primary grade teachers in terms of literacy instruction. Through an initial survey and two follow-up observational studies, they found the most effective primary grade teachers fostered a

literate environment that was well managed; there was a high density of instruction; instruction was connected across reading, writing, and the content areas; students' learning was supported through scaffolding with high expectations for all learners; and literacy instruction included a balance of explicit skills instruction with contextual reading experiences (Pressley, Rankin, & Yokoi, 1996; Wharton-McDonald, Pressley, & Hampston, 1998). While these studies recognized the *practices* of effective teachers, it is also important to acknowledge the necessary *components* of effective early literacy instruction.

Several large-scale reviews of research identified the components of effective literacy instruction that are predictive of later reading achievement. The NELP report identified five early literacy skills or components that should be taught to young learners including: phonological awareness, alphabet knowledge in conjunction with phonological awareness, early writing, concepts about print, and oral language (Shanahan & Lonigan, 2013). These components, while necessary, are not sufficient alone for moving students forward in their reading achievement. The *application* of these components in simulating reading even before students are actually able to read conventionally is also critical for progress in early reading abilities.

One simulation of reading that integrates the skill components identified by the NELP report is called a concept-of-word-in-text. A *concept-of-word-in-text* (COW-T) is defined as the culmination of a student's automatic knowledge of letter sounds and their ability to isolate beginning consonant sounds to make an accurate speech-to-print match in familiar text, that ultimately leads to their ability to remember words in isolation that were viewed previously in text (Blackwell-Bullock, Invernizzi, Drake, & Howell, 2009;

Flanigan, 2007; Morris, 1993). COW-T subsumes the component skills identified by the NELP as critical for early literacy. Acknowledging the pervasive level of underachievement in reading in our country and the importance of high quality literacy instruction to increasing achievement of all readers, this study focuses on the earliest stage of reading development, the emergent literacy stage, and focuses on instructional practices intended to develop a COW-T.

Emergent Literacy Development

The past century of research has revealed a wealth of information regarding the development of literacy for students in their early years and highlights changing perspectives towards a heightened recognition of the importance of this period for young learners. At the outset of the 1900's the widely held view of "reading readiness" was prevalent which asserted that students must demonstrate a certain level of mental maturity or readiness before reading instruction would be beneficial (Teale & Sulzby, 1986). Towards the mid point of the century, the research focus shifted with the recognition that young learners demonstrate an understanding of early literacy concepts well before any predetermined age and well before formal reading instruction (Teale & Sulzby, 1986). One influential researcher, Marie Clay, recognized the literacy behaviors of young students in her work, leading her to coin the term *emergent literacy* (as cited in Teale & Sulzby, 1986). *Emergent literacy*, the period of development typically occurring from birth to approximately mid-kindergarten, is characterized by a student's emerging development of early skills in reading, writing, and oral language that develop concurrently and are foundational to conventional reading in the beginning reading stage of development and beyond.

Research of the last several decades continues to build empirical knowledge of the early literacy skills, dispositions and behaviors learned in the emergent literacy stage that are predictive of later reading achievement as well as the symbiotic relationships among these skills, dispositions, and behaviors. One small but robust line of research exploring the coalescence of such skills has involved COW-T. For students to even simulate reading in a familiar context, familiar by virtue of memory and/or prediction, they must orchestrate their growing knowledge of beginning sounds (phonological awareness) with initial consonants (alphabet knowledge) and word boundaries (concepts about print) with their memory for how the language of the text goes (oral language)—an orchestration that requires the application of four of the five component skills described in the NELP report. Such an orchestration is possible only when students have opportunities to learn the how, what, and why of becoming literate and when instruction is matched to their developmental knowledge of the component skills which emerge gradually, in response to instruction, over time. As a result, three perspectives of emergent literacy and early reading development guide this study: component skills, developmental, and situated literacy.

The large-scale review of empirical research by the NELP presents a components perspective positing that literacy learning is comprised of a set of components necessary for learning to read: phonological awareness, alphabet knowledge, early writing, concepts about print, and oral language (NELP, 2008). Research supports the importance of each of the components to early reading development in young students. *Phonological awareness*, the ability to attend to and manipulate the sound structure of language, has been found to play a causal role in later reading achievement (Adams, 1990; NELP,

2008; Snow et al., 1998) In addition, *alphabet knowledge*, the knowledge of the names and sounds of letters; and *writing or name writing,* the application of written letters individually or combined to represent a name, have been found to be predictive of later reading achievement (Shanahan & Lonigan, 2013; Storch & Whitehurst, 2002; Whitehurst & Lonigan, 1998). Both *concepts about print*, the knowledge of the forms and functions of print, and *oral language*, the ability to both use and understand language, were found to have more moderate correlations with later reading achievement (NELP, 2008; Shanahan & Lonigan, 2013), but have been recognized as critical components of early reading instruction (Storch & Whitehurst, 2002; Whitehurst & Longian, 1998). While research evidence supports the importance of each component skill, some researchers have conceived these component skills as being intertwined, like a braid, that work in synchrony to develop literacy in young students (Bear, Invernizzi, Templeton, & Johnston, 2012). The intertwining of these skills begins early as students are exposed to rich oral language experiences through read aloud opportunities and continues to be refined as they experiment with early writing, develop alphabet knowledge, explore the sound structure of language, and demonstrate early concepts about print by imitating observed reading behaviors. The amalgamation of these early literacy skills is exemplified in a student's COW-T and can be best demonstrated with an example text.

Five little ducks went out one day,

Over the hill and far away.

As the child begins to recite the familiar rhyme they are utilizing their knowledge of the language of text (oral language). Accurate fingerpoint reading (COW-T) requires the child to apply their knowledge of the forms and functions of print by pointing first to the

word *five* and progress from left to right and top to bottom (concepts about print). As the child continues to recite the line "*Five little ducks"* the child may confuse syllables with word boundaries and point to *ducks* to when saying the second syllable of *little (e.g. lit-tle).* The child may quickly recognize this error by applying beginning sound knowledge to the initial letter of *ducks* and notes that /d/ does not correspond to the first sound in the syllable /tle/ and then self-correct so as to be pointing to a word that starts with /d/ when saying ducks. This demonstration illustrates the application of the critical emergent literacy component skills in the closest simulation to real reading, COW-T.

While it is important to distinguish the aspects of effective literacy instruction as presented by the components perspective, it is important to reiterate that other perspectives view these components as "necessary but insufficient" for students to move forward in literacy development. These other perspectives focus on the interactions among these components within situated contexts and how these components coalesce across time. The developmental perspective represents how these larger understandings merge with the integration of component skills across time (Clay, 1972; Ehri, 2005; Henderson, 1980; Morris, Bloodgood, Lomax, & Perney, 2003). The developmental perspective focuses on how the details of the component skills shift over time as they become integrated toward authentic purposes of reading and writing.

As students are exposed to both informal and formal instructional experiences, they begin a gradual process of attainment of each of the component skills that progresses from more broad concepts to more defined abilities. Phonological awareness, for example, develops gradually from the ability to discriminate larger units of sound, such as rhyme and syllables, to the ability to manipulate smaller units, such as individual

phonemes in words (Adams, 1990; Bear et al., 2012). Similarly, concepts about print also develop gradually from early understandings of broad concepts, such as directionality (reading top to bottom, left to right, front to back) to more narrowly defined concepts such as being able to identify capital letters or specific words in text (Adams, 1990; Clay, 1967; Clay, 1991; Clay, 2000). Alphabet knowledge also follows a developmental progression; learning how to visually distinguish one letter from another (Adams, 1990) precedes paring letters with their associated names and sounds, for example. Research has also revealed developmental trends in learning alphabet names and letter sounds (Justice, Pence, Bowles, & Wiggins, 2006; Huang & Invernizzi, 2012; Huang, Tortorelli, & Invernizzi, 2014). Like the early reading-related component skills, the development of early writing follows a continuum progressing from broad imitations of writing in the form of scribbles or mock linear writing to more narrowly prescribed use of alphabet letter names and sounds to convey a written message (Bear et al., 2012; Cabell, Tortorelli, & Gerde, 2013). Underlying the component skills is a student's use and understanding of oral language that progresses from broad use of one-word utterances in contextualized circumstances to more refined multi-word utterances using decontextualized language (Pence & Justice, 2008). The gradual process of development for each of the component skills is fostered as students enter their first year of formal schooling through various instructional experiences and the contexts in which the instruction is provided. The final perspective, the situated literacy perspective (Gee, 2012) focuses on students' growing identities as literate individuals.

In the situated literacy perspective, students learn the *what*, the *why*, and the *how* of reading through socially defined interactions in specific contexts that form their

understanding of what it means to be a literate individual (Gee, 2012). Students learn *what* it means to be literate through instructional opportunities that engage them in reading and writing for authentic purposes. For example, students who engage in reading and writing in social contexts with peers and other adults, who have opportunities to build the understanding that literate individuals communicate through writing may develop a different idea of what it means to be literate than students who only experience reading and writing in controlled contexts, such as reading teacher-selected texts in small group without any social interaction or opportunity to explore the purposes for reading. In addition to developing what it means to be a literate individual, students also develop an understanding of *why* it is important to be literate. For example, students may think that reading and writing are isolated chores devoid of larger communicative purposes, if the context for learning is one where the student reads the book or completes the writing assignment because the teacher tells them to rather than one where the student chooses to read or write to communicate or share ideas with others. Finally, through instructional contexts and social interactions students also learn *how* we become literate. Students provided ample opportunities for frequent reading practice for authentic purposes with peers and adults will develop a different understanding of *how* we become literate than a student that only reads in isolated instructional contexts without the application to authentic, social reading experiences in connected text. Examining the context in which learning occurs for young students is critical for understanding how they will develop their understanding of what it means to be a literate person.

The situated literacy perspective and the developmental perspective add to the our growing understanding of the component skills necessary to become literate and suggest

nuances of instruction that go beyond the transmission of isolated skills. Of particular interest to this capstone study is how the component skills of emergent literacy coalesce across development to result in the attainment of a COW-T, and how the situated details of instruction may be associated with that development. A small but robust line of research related to early literacy development, the attainment of a COW-T, exemplifies all three perspectives of emergent literacy development, the components, developmental and situated literacy perspectives. COW-T subsumes all component skills identified by NELP as critical for early literacy and represents a critical benchmark in emergent literacy development because it provides the young learner the opportunity to engage in the closest simulation to conventional reading, while applying their developing understanding of the component skills in meaningful contexts that nurture their growing identities as readers.

Conceptual Framework

Central to this study is the conceptual framework graphically depicted in the center of Figure 1. This framework posits that word reading is the culmination of a sequence of developmental milestones that students attain in response to instruction in authentic, situated contexts. The model provides one explanation for the reciprocal relationship between phonological awareness, alphabet knowledge, print concepts, and early word reading (Flanigan, 2007; Morris, 1993; Morris et al., 2003; Wagner, Torgeson, & Roshette, 1994). The larger conceptual model provides a valuable framework for educators as they plan instructional opportunities for students. The empirically based developmental sequence, depicted in the graphic organizer as Morris' (1993) Conceptual Framework, describes the order students typically learn these critical

early literacy skills in response to instruction that not only emphasizes the relevant skill, but also requires students to apply those skills in a simulation of real reading in authentic and socially engaging contexts. The developmental progression from beginning sound awareness to the ability to recognize words aligns with other developmental perspectives (Ehri, 2005; Henderson, 1980) overarching Morris' specific framework suggesting these component skills are necessary, but not sufficient for the shift from emergent to conventional reading, a transition that is facilitated by the "watershed event" of attainment of a COW-T (Henderson, 1980, p. 9). Examining the component skills alone in this study would be insufficient, though, because instruction and learning does not occur in isolation, but occurs in meaningful, situated contexts that foster the development of a student's identity as a reader.

Each layer of the model, the situated contexts, the understanding of the developmental progression, and the critical early literacy components, will be examined in the context of kindergarten classrooms. Because of the magnitude of importance in the attainment of a COW-T and its reciprocal relation to the component skills within situated contexts in which instruction occurs, it is critical to examine teachers instructional practices by studying the instructional practices/methods implemented by classroom teachers related to Morris' conceptual framework for COW-T and exploring the extent to which the employed instructional practices address the perspectives guiding this study.

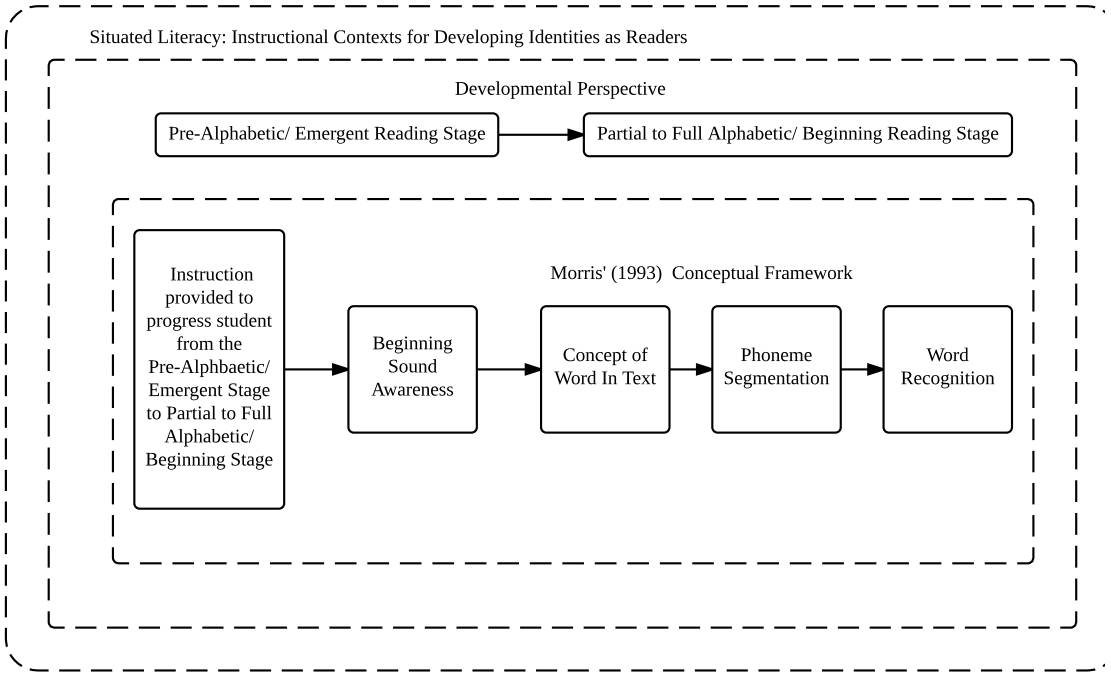


Figure 1. Conceptual framework for the capstone project.

Statement of the Problem

Research has identified three perspectives of emergent literacy development that are exemplified in the development and ultimate attainment of COW-T. It is widely recognized that there are critical early literacy components necessary for reading development, but insufficient when taught alone. Students must also receive instruction that is targeted to address their specific developmental needs and situated to aid in their growing understanding of what it means to be a literate individual, why we become literate individuals, and how we become literate individuals. In addition, research also identifies that quality early literacy instruction can reduce the prevalence of later underachievement in reading (Snow et al., 1998). While research provides strong evidence for the importance of the amalgamation of the three perspectives in early

literacy, the attainment of COW-T for later reading achievement, and the importance of quality literacy instruction for ameliorating underachievement in later reading, little is known about the actual literacy practices of teachers in classrooms today. Focusing specifically on the emergent literacy period, it is also recognized that many questions remain unanswered regarding the COW-T instructional practices of kindergarten teachers. Thus, it appears the field of early literacy development could benefit from qualitative exploration and description of the COW-T instructional practices and the extent to which teachers incorporate or address the developmental needs and provide situated opportunities as students are learning critical early literacy skills and practices.

The problem of practice examined in this capstone project emerged as a result of work with a larger qualitative study and specifically focuses on the instructional practices of kindergarten teachers. From previous research, strong empirical evidence was available to support the importance of the emergent literacy stage on later reading achievement and the attainment of COW-T as a pivotal event in early literacy development, but the absence of research available to empirically describe the current practices of classroom teachers was obvious. As the team collected data and held team meetings for the larger project, it became clear the data collected was ripe for further exploration of instructional practices of the kindergarten teachers. For the current study, a purposeful selection of the archival data collected during the larger study was analyzed to provide rich description of the early literacy instructional practices of nine kindergarten teachers, specifically focused on COW-T practices. Understanding what is currently happening in kindergarten classrooms related to early literacy instruction, specifically COW-T, can lead to developing targeted professional development for teachers,

administrators, and other related service providers as well as provide a starting point for further qualitative exploration of COW-T instruction.

Chapter II: Review of Relevant Literature

It is widely recognized that a concerning margin of students in the United States are not reading at basic levels (U.S. Department of Education, Institute of Education Science, National Center for Educational Statistics, National Assessment of Educational Progress [NAEP], 2013). To address this pervasive level of underachievement in reading, vital stakeholders acknowledge the importance of instruction, specifically early literacy instruction, as a critical means towards improving the reading achievement of young learners (NELP, 2008; Snow et al., 1998). This early period of literacy development, the emergent literacy stage, is essential for providing learners with foundational skills and knowledge necessary for later reading development and is the central focus of the current research study. As introduced in chapter one, three perspectives of emergent literacy guide the current study: component skills, developmental, and situated literacy. While each viewpoint is recognized as important to emergent literacy development, the coalescence of these three perspectives provides a more comprehensive understanding of the development of literacy, and specifically COW-T, and how to most effectively approach instruction for students in their early years.

This capstone describes teacher practices in emergent literacy instruction, with a focus on COW-T instruction. I describe teacher practices in COW-T instruction, a practice that incorporates the application of the recognized components of early literacy instruction and is necessary to move students into conventional reading. Insight into teachers' practices related to COW-T instruction has implications for their understanding

of emergent literacy development, knowledge that is crucial to differentiate instructional responses according to developmental need. As such, COW-T instruction is essential to develop students' identities as readers.

The conceptual framework (Figure 1) discussed in chapter one serves as a guide for the review of relevant research. First, I describe the situated contexts delineated by the situated literacy perspective. Second, I share the necessary component skills of early literacy instruction. Third, the discussion continues with research regarding the developmental perspectives relevant to the emergent literacy stage. I then share how the three perspectives coalesce in their relationship to COW-T. Finally, the review concludes by discussing the known instructional practices for fostering the development of COW-T alongside supporting research.

Situated Literacy Perspective

The situated contexts in which students learn, including instructional practices and opportunities, help form their identities as they develop as readers. The situated literacy perspective encompasses both the social aspects of learning to read and the purposes for learning component skills. It is through culturally and socially defined instructional opportunities, in specific contexts, that students begin to learn the *what*, the *why*, and the *how* of reading that ultimately influences their understanding of what it means to be a literate individual (Gee, 2012). Furthermore, the instructional practices and opportunities also influence how students perceive the act of reading that either helps develop the notion that reading is for communicative purposes or that reading is merely a task devoid of larger purpose. For example, if the situated contexts are too narrow or

controlled, students may get the idea that reading is a teacher-defined task as opposed to a more authentic experience used for communicating experiences and ideas.

Students learn *what* it means to be literate through social contexts that foster engagement with reading and writing in authentic ways as opposed to controlled contexts that prevent the opportunity to explore the purposes of reading. Students learn *why* it is important to be literate by engaging in instructional opportunities that promote meaningful engagement with reading and writing for communicative purposes as opposed to instructional opportunities that present isolated tasks devoid of the larger purpose. Finally, students learn *how* we become literate in instructional contexts that provide ample opportunity for application of learned skills in authentic experiences with peers and adults as opposed to application of skills in controlled, isolated contexts.

Research suggests that students learn best when they are provided with authentic experiences that integrate and embed component skills within meaningful and situated contexts. Authentic learning experiences allow students the opportunity to develop understandings of the purposes of specific component skill instruction and the purposes of integrating the skills to help further their development as readers. Research related to the situated literacy perspective suggested that authentic approaches that provide integrated instruction was more effective than either component skills or literature based experiences alone (Pressley et al., 2001; Ukrainetz, Cooney, Dyer, Kysar, and Harris, 2000; Xue & Meisels, 2004). When considering the authentic approach or contexts for literacy instruction, it is imperative to consider what constitutes the component-based aspect of such instruction. The components perspective, discussed next, explicates the necessary early literacy skills for young students.

The Components Perspective

While the situated literacy perspective informs about the ideal contexts in which instruction should be situated, the components perspective provides additional critical information regarding the specific knowledge and skills that research suggests should comprise early literacy instruction for emergent learners (Rhyner, Haebig, & West, 2009). Over the last several decades, researchers have summarized the components of emergent literacy research necessary for later success in reading. In the late 1990s, Whitehurst and Lonigan provided the first framework of emergent literacy instruction incorporating components from two lines of research central to early literacy instruction. The emergent literacy framework provided critical information for understanding the necessary knowledge and the skills students should be taught in early literacy to produce the greatest chances of success with later reading.

Components of Emergent Literacy

Whitehurst and Lonigan (1998) proposed a model of emergent literacy that is informed by two lines of research that detail the necessary components of emergent literacy. The first line of research addressed the components as they relate to the acquisition of conventional reading. Whitehurst & Lonigan (1998) referred to the skills in this first line of research as *inside-out skills.* Inside-out skills are code-related and do not require knowledge of context (Hammer, Scarpino, & Davison, 2011). Inside-out skills included phonological awareness and alphabet knowledge. The second line of research addressed how literacy tasks and materials influence the development of literacy related behaviors in young students. Whitehurst and Lonigan (1998) referred to the skills in the second line of research as *outside-in skills*. Outside-in skills included language, print

concepts, and conceptual knowledge and are related to students' understanding of context (Hammer et al., 2011). Whitehurst and Lonigan (1998) proposed that these two distinct lines work in coordination during the emergent literacy period and recommended a model that integrated both lines of research.

Outside-In Skills. Outside-in skills, like oral language, influenced the acquisition of literacy at various points in the process. In early literacy development, vocabulary is important to help students make connections between the phonological representation of a word and the meaning of the code (Whitehurst & Lonigan, 1998). The connection between code and meaning is important because without meaning students could decode a word, but would lack the meaning connection and impede understanding. This connection is facilitated in early literacy by students' early oral language abilities. Dickenson, McCabe, Anastasopoulos, Peisner-Feinberg and Poe's (2003) research documented the influence of oral language on later reading abilities among low-income preschool age students and later extended this finding in another study exploring the relationship between preschool language experiences on later reading achievement (Dickinson & Porche, 2011). The latter study corroborated and elaborated on the influence of oral language on the acquisition of reading. Another critical outside-in skill is knowledge of how print works, or concepts about print. Early in the reading acquisition process, knowledge of how print works can aid students in learning to read (Clay, 1979) and is related to later reading achievement (Adams, 1990). The research studying oral language and concepts about print provide empirical support for the importance of these component skills in early literacy acquisition.

Inside-Out Skills. In Whitehurst and Lonigan's (1998) review, a second line of research, inside-out skills included alphabet knowledge, phonological awareness, and early writing. Their review included studies conducted over the last several decades that provided supporting evidence for the importance of code-related component skills. Research has shown alphabet knowledge is one of the single best predictors of later achievement in reading (Adams, 1990; NELP, 2008) and is important to early reading acquisition, as students must apply letter and letter sound knowledge to begin to fully grasp the alphabetic principle. Alphabet knowledge also plays a role in the development of phonological awareness abilities as students begin to grapple with the sound structure of language. Phonological awareness has long been recognized as playing a critical role in and is strongly, even causally, related to early reading acquisition (Adams, 1990; Wagner et al., 1994; NELP, 2008). In addition, there appears to be a strong consensus among the research that alphabet instruction taught in coordination with phonological awareness instruction yields greater effects on later reading achievement than either component skills taught in isolation (NELP, 2008; Shanahan & Lonigan, 2013). Finally, *early writing* has also been shown to be predictive of later reading achievement (NELP, 2008). Early writing is defined as "children's representations of their knowledge about the writing system" (Cabell et al., 2013, p. 651). Research has found that written-language skills can predict reading abilities in first grade (Senechal, LeFevre, Thomas, & Daley, 1998).

All things considered, the research on outside-in and inside-out skills reviewed by Whitehurst and Lonigan (1998) suggested an authentic, integrated emergent literacy program to include both code-related and context-related skills. The research suggested

that context-related skills such as oral language and concepts about print influence the learning of code-related skills by forming connections between students' oral language and the printed language. The connections facilitated the application of phonological awareness, alphabet knowledge, and early writing in authentic, meaningful experiences such that teaching any of the code-related skills in isolation is less effective than teaching them in tandem with outside-in skills.

Pulling Together Two Perspectives

The situated literacy and components perspectives, when considered together, provide a clearer picture of effective early literacy instruction. The situated literacy perspective suggested that literacy instruction should be situated in a manner that fosters students' developing identities as readers and provides opportunities for authentic learning experiences. As posited by Whitehurst and Lonigan (1998), the components perspective detailed the critical elements necessary for early literacy instruction that fit in two domains: inside-out and outside-in skills. Research related to both perspectives detailed how the two perspectives converge to begin building a solid foundation for early literacy instruction.

Authentic, Integrated Instruction

Research related to the situated literacy perspective provides insight into the most effective ways to instruct the identified early literacy components. The research has suggested an authentic approach that integrates the component skills in socially situated contexts produces greater outcomes for young students. Xue and Meisels (2004) investigated the impacts of early literacy instruction on student outcomes in kindergarten. The study examined the effects of teachers' reported instructional practices, either a

components-based approach and/or an integrated approach providing authentic literacy experiences. The researchers measured student outcomes using a language- and literacy-based cognitive measure along with two teacher ratings of students' skills and knowledge. Findings revealed that both the components-based and the integrated approaches were positively associated with student outcomes. Although the results indicated both approaches produced positive outcomes for students, additional analyses found that students had increased outcomes when an authentic approach to literacy instruction that incorporated both the necessary components and opportunity for integrated, authentic literacy experiences, was used more frequently.

Similar findings, indicating an authentic, integrated approach to literacy instruction produced greater literacy outcomes, were reported in a large-scale study conducted in first grade classrooms by Pressley et al. (2001). Administrators in five locales identified 15 pairs of teachers, with one teacher in each pair being identified being perceived as outstanding in promoting literacy achievement and the other teacher perceived as being more typical for participation in the study. The research team in each locale conducted observations and interviews with all teachers. Among many other findings, the researchers reported the most effective teachers integrated component skills instruction in reading and writing, providing authentic literacy experiences that required the application of skills to actual reading and writing.

In addition to the previous studies that reported the positive effects of authentic, integrated literacy instruction, Ukrainetz et al. (2000) provided further support for embedding component skill instruction in meaningful, authentic, shared reading and writing experiences. Specifically, Ukrainetz et al. (2000) conducted a study to see if

phonological skills can be learned in naturalistic or authentic contexts. The study included 36 students ranging in age from five to six and a half; all were considered nonreaders based on a screening measure. The students were randomly assigned to treatment conditions in addition to typical classroom activities and instruction. Those who received the treatment condition were assigned to small groups of three students and received phonological-based instruction during three 30-minute sessions over seven weeks. The findings revealed that students in the treatment condition outperformed those in the control condition in phonological skills. Additionally, the researchers noted through informal observations that student interest increased in other areas of language and literacy, such as curiosity in book reading and engagement in discussions about the books as well as parent reports of increased interest in reading environmental print at home. Collectively, the findings reported by Xue and Miesels (2004), Pressley et al., (2001) and Ukrainetz et al. (2000) indicate positive outcomes associated with integrated early literacy instruction embedded in authentic experiences.

While Ukrainetz et al. (2000) provided one example of a possible instructional method for integrating critical early literacy components in authentic experiences, further research examining ways such integration occurs for other literacy constructs is necessary. One such study that examined the effects of various methods of integrating phonological awareness skills with reading instruction, Hatcher, Hulme and Ellis (1994) conducted a longitudinal intervention study examining the effects of three different instructional approaches, only one of which was integrated: reading with phonological instruction, reading alone, or phonological instruction alone. The three instructional approaches were compared to a control condition, business as usual classroom

instruction, which was not described. Participants were seven-year-old students demonstrating difficulties in the early stage of learning to read and were placed into one of the four groups, based on intervention type (integrated phonological training/reading, phonological training alone, reading alone) or control. Students received the intervention for 40, 30-minute sessions across 20 weeks. A variety of measures assessing cognitive abilities, reading skill, phonological skill, spelling skill, and math abilities were measured pre-and-post intervention. Results indicated the group that received the phonological instruction integrated with reading instruction produced greater gains in reading related measures than the groups that received phonological or reading skill instruction in isolation providing additional support for the importance of integrated, authentic early reading instruction.

The Hatcher et al. (1994) study provided further evidence for the support of the phonological linkage hypothesis suggesting that training in phonological skills in addition to early reading instruction is more effective than phonological instruction alone. However, there were some reading related outcome measures in which the control group, the business as usual classroom instruction, outperformed those in either the reading alone or phonological training alone groups. In the word reading task, the control group had higher outcomes than either phonological or reading alone. The control group also demonstrated greater outcomes in the nonword reading and spelling tasks than the reading alone group. Considering these findings, it would be important to describe the nature of the typical classroom instruction. It may be that the control group instruction was as integrated as the phonological training and reading intervention, but lacked the intensive remedial effort. This would be important to know when considering the nature

of classroom instruction and the literacy experiences that students have in the business as usual setting. Nevertheless, the Hatcher et al. (1994) study added to the previous research by providing evidence for a possible instructional method/intervention shown to increase reading outcomes for learners struggling with early reading with a comparison to a business as usual condition. While these findings provided initial support for instructional approaches to integration, it is important to explore additional research to better understand the nature of how integrated instruction occurs.

In a later study, Schneider, Roth, and Ennemoser (2000) added another component skill, alphabet knowledge, to the integration mix and also followed up after the study to see if there were lasting effects. Schneider et al. (2000) tested the phonological linkage hypothesis (Hatcher et al., 1994) with kindergarten students identified as possibly being at risk for reading difficulties based on a phonological processing screening measure. The study compared the effects of three types of intervention: letter-sound training, phonological awareness training, and the one integrated approach, a combination of phonological and letter-sound training. There was also a control group of typically achieving students, not considered at-risk, for comparison that followed the typical kindergarten program, "which mainly consisted of social events and games with no formal cognitive or linguistic training" (Schneider et al., 2000, p.287). Students identified at-risk were placed into one of the three treatment interventions conducted by trained kindergarten teachers in daily 15 minute sessions over 10 to 20 weeks depending on treatment. Each of the intervention conditions along with the control group was evaluated to determine the effect on students' reading and spelling skills as measured in kindergarten post-tests as well as grades one and two.

Findings indicated that at the time of the pre-test students in the control group outperformed those in any of the three intervention conditions with the exception of word reading where no significant differences were found. At the end of the training period, post-test results revealed that students in the phonological only group outperformed all others in the phonological measures while those in the integrated, combination intervention performed higher than the letter sound only and the control group. Follow up testing in first grade revealed the control group of normal achieving students outperformed any of the three treatment in conditions in both reading and spelling with the combination training showing the highest outcomes for those at-risk. Supporting the Hatcher et al. (1994) findings, research suggests that authentic, integrated approaches produced greater effects in later reading and spelling measures.

Hatcher et al. (1994) and Schneider et al. (2000) provided detailed methods for integrated early literacy instruction that were found to increase student outcomes under quasi-experimental conditions; however, it is also important to recognize that such conditions are not present in the day-to-day operation of a typical kindergarten classroom. Considering the need for an instructional approach for early literacy instructors, Justice and Kaderavek (2004) detailed an approach for incorporating integrated early literacy instruction for emergent learners termed the *embedded- explicit model of emergent literacy intervention*.

"The embedded-explicit intervention model emphasizes the dual importance of providing young children with socially embedded opportunities for meaningful, naturalistic literacy experiences throughout the day, in addition to regular structured therapeutic interactions that explicitly target critical emergent literacy goals" (Justice &

Kaderavek, 2004, p. 201). This model clearly addressed the *what* (opportunities for integrated and embedded literacy instruction) and the *why* (engagement in authentic, situated contexts) of the situated literacy perspective and provides a means for the *how* (opportunities to apply learning in authentic learning experiences). The model incorporated two emergent literacy approaches; an authentic approach and the explicit skills (components) focused approach. The authentic approach emphasized the development of emergent literacy skills through naturalistic, meaningful experiences with oral and written language. The explicit skills focused approach emphasized the structured teaching of emergent literacy skills by a teacher in a directive manner where students are provided sequenced instruction of early literacy skills. By incorporating both approaches in an integrated fashion, the embedded-explicit model intended to both increase student performance with the emergent literacy components that are recognized as critical for later reading success and provide meaningful, authentic literacy experiences for students to understand the use of literacy.

According to the model, throughout the day students are actively engaged in daily authentic literacy opportunities: print-rich environment, adult-child shared storybook reading, and literacy-enriched play settings. In addition, students are also provided opportunities for explicit instruction that is delivered in both whole and small group settings addressing the critical emergent literacy components: phonological awareness, print concepts, alphabet knowledge, oral language, and early writing. The integration of the authentic and explicit components of this model provided a framework that could be easily employed in kindergarten classroom instruction. The model reflected the authentic, integrated approach supported by the research discussed in this section and could

possibly increase outcomes for young learners in early literacy. Justice and Kaderavek (2004) also supported this notion.

> No studies, however, have demonstrated widespread outcomes for children participating in emergent literacy intervention transcending phonological awareness, print concepts, alphabet knowledge, literate language, early writing, and literacy interest. It is likely that a dual-pronged embedded-explicit model is the only way to achieve such aims. (p. 207-208)

Xue and Meisels (2004), Pressley et al., (2001), Ukranietz et al., (2000), Hatcher et al., (1994) and Schneider et al., (2000) support the *what* component of the situated literacy perspective in which integrated literacy instruction is designed to provide students reading and writing opportunities for authentic purposes. The integrated, meaningful experiences help students form their developing understandings of *what* it means to be a literate person. In some ways, the research discussed in this section also supports the *why* by helping students to understand that reading and writing are used for communication and are not solely for teacher-directed, controlled, and/or isolated tasks. Building an understanding of *why* we read and write is accomplished, at least in one way, through the integrated, authentic nature of the approaches reviewed, which produced gains in reading outcomes for students leading to an understanding that we read and write for communicative purposes.

What is missing from the research base is a description of *how* students become literate, meaning what is actually occurring in the classroom that helps students develop this understanding. One piece of the *how* includes the components of the instruction. As presented in the research related to situated literacy, an authentic, integrated approach to early literacy instruction was found to be most effective in producing greater outcomes for young students, but what components are necessary for early literacy instruction.

Research related to the components perspective details the elements of early literacy instruction that have the greatest effect on later reading outcomes.

Predictive Early Literacy Components

The emergent literacy framework Whitehurst and Lonigan (1998) proposed addressed how research studies have shown the importance of the component skills to early literacy development. Whitehurst and Lonigan (1998) suggested inside-out and outside-in skills influence reading achievement at varying points in reading development, but additional evidence is needed to support this claim. Storch and Whitehurst (2002) provided additional evidence in their longitudinal study examining how code-based and oral language abilities can help to understand the influence of the component skills on later reading achievement.

Examining the code-related and oral language precursors to conventional reading, Storch and Whitehurst (2002) conducted a longitudinal study with 626 four-year-old students enrolled in one of eight Head Start classrooms. The students were selected over a three-year period and then followed through fourth grade. The study examined the relationship between code-related skills and language ability on later reading skills using structural equation modeling. Students were assessed six times, once during the spring of each year of school from preschool to fourth grade, on measures of code-related skills, oral language skills, and reading.

The analysis revealed several interesting results. First, the model confirmed the relationship between oral language and code-related skills finding it was strongest during the preschool year and still maintained predictive power in kindergarten. Second, “there was longitudinal continuity within both the oral language and code-related skill domains”

(Storch and Whitehurst, 2002, p. 940), meaning the previous year's ability accounted for significant variance in ability in later years. Third, the variance code-related abilities played in reading ability in first and second grade indicated that code-related abilities were critical to reading abilities and achievement. Finally, prior reading achievement and concurrent reading accuracy and oral language skills significantly influenced reading comprehension in the later elementary grades.

The findings from the Storch and Whtiehurst (2002) study revealed the importance of both domains, oral language and code-related, during the emergent literacy period and supported previous research cited in Whitehurst and Lonigan (1998) demonstrating that in early reading development the two domains are highly related. Results also further support the finding of the critical role that code-related abilities play in the early stage of learning to read as well as in later success with reading. The Storch and Whitehurst (2002) study added to the framework proposed by Whitehurst and Lonigan (1998) by providing empirical support for how both oral language and code-related component skills influence reading development at varying points in the process of learning to read from preschool through the early grades and their predictive power on later reading achievement. A highly influential national report provided further predictive support for these component skills.

In 2008, The National Early Literacy Panel (NELP) convened to examine the critical early literacy period for children from birth to age five to provide a better understanding of the most effective instructional practices for emergent literacy. The research team conducted a meta-analysis of quantitative studies examining which skills

and abilities of young students predict later outcomes in reading and the instructional approaches, environments, and child characteristics linked to those outcomes.

The first question posed by the NELP researchers sought to examine the skills and abilities of young students that predict later reading achievement. The question also provided additional empirical support for the component skills that can predict later reading outcomes. This large-scale review of relevant research used specific criteria for the inclusion of studies reviewed. The studies had to meet the five criteria to be included. First, the study must be published in English. Second, it must be published in a refereed journal. Third, it must include empirical research including quantitative data of students typical of regular classrooms. Fourth, the languages studied must be English or another alphabetic language. Fifth, the study must include children from birth to age five or kindergarten. The findings further confirmed the necessity of the components put forth by Whitehurst and Lonigan (1998) and Storch and Whitehurst (2002) in the oral language and code-related domains including oral language, concepts about print, phonological awareness, early writing, and alphabet knowledge.

While the NELP report included detailed information regarding instructional practices, instructional environments, and child characteristics, for the purpose of this review, the discussion will focus on students' skills and abilities reported as predictive of later conventional literacy skills. The researchers reviewed and reported on correlational studies to provide evidence for a relationship between early literacy skills and later reading achievement. The report found that skills including phonological awareness, alphabet knowledge, early writing, oral language, and concepts about print developed during the early literacy period have predictive relationships with later reading abilities

(NELP, 2008). Specifically, the meta-analysis found that alphabet knowledge was strongly predictive of later decoding and spelling abilities and concepts about print were strongly predictive of reading comprehension. Phonological awareness, concepts about print, writing, and oral language were all moderately predictive of later decoding. Alphabet knowledge, phonological awareness, writing and oral language were all moderately predictive of later reading comprehension. Finally, phonological awareness, concepts about print, writing, and oral language were all moderately predictive of later spelling abilities. Even more powerful, the component skills found in the NELP (2008) report to be the most predictive of later measures of reading achievement maintained their predictive power even when controlled for other possible influencing variables such as IQ or socioeconomic status.

Together, the situated literacy perspective and the components perspective suggest there are necessary early literacy components that should be taught, and the manner in which they are taught is equally important. As argued, authentic experiences that integrated component skill instruction in situated contexts is most effective for early literacy instruction. A third perspective, the developmental perspective adds another layer to the already established argument. The developmental perspective indicates there is a continuum of development that children typically progress through as they acquire early literacy skills. As teachers plan instruction for the component skills, they must also consider the developmental needs of students, as this will influence how teachers situate learning. The following section introduces several developmental theories and concludes with a summary of how the models converge to support the importance of examining the

early literacy practices of teachers and specifies the perspectives relationship to the development of COW-T.

The Developmental Perspective

Several researchers have described learning to read and write or spell in developmental stages that describe a continuum of skills and conceptual understandings through which students typically progress as their reading and spelling abilities grow in integrated ways and become more sophisticated. The initial stages of reading development are relevant to the current study and are most commonly, to date, referred to as the emergent and beginning stages of reading. The first stage, the *emergent stage,* refers to students who do not yet have COW-T and do not yet understand the *alphabetic principle*, the understanding that speech can be divided into phonemes and represented systematically with letters. The *beginning reader stage* is characterized by what most would consider conventional reading, writing, and spelling where the learner is using their foundational literacy skills to build a store of known words, read familiar or predictable text, and produce writing readable by others (Bear et al., 2012). The stages of reading development also correspond directly with stages of word knowledge and spelling development. To best understand how students learn to read and spell words, two critical theories describing this developmental continuum are discussed next.

Ehri's (2005) Developmental Theory of Word Learning

Ehri's (2005) developmental theory of how students learn to read words, posited a single route through which all individuals learn to read. According to this model, students progress through four stages of word learning as their knowledge of how print works

becomes more sophisticated. Three of Ehri's word-learning stages align closely with the emergent and beginning stages of reading development and are discussed in detail.

Prealphabetic Stage. Ehri's earliest stage, *prealphabetic,* is characterized by students' minimal knowledge of the alphabetic system, as they are not using letter sound connections to read or remember words. Students at this stage read and remember words by using selected visual features or cues, such as recognizing the two eyeballs in the middle of *look* or "reading" environmental print or logos like the golden arches of a McDonald's restaurant sign (Ehri, 2005). The students' written productions lack correspondence to speech sounds and may consist of Hieroglyphic-like symbols or a mixture of random letters and numbers. Prealphabetic readers typically pretend to read using pictures or retelling a story "in synch" with the pictures after hearing it on multiple occasions. While reliance on visual cues for reading is the hallmark characteristic of the prealphabetic reader, learning to read using this strategy would require great feats of memory for arbitrary visual cues to attain a sizable enough sight vocabulary necessary for conventional reading. Fortunately, English spelling does not consist of arbitrary sets of visual symbols, but rather consists of predictable correspondences between pronunciations and meanings that can be taught and learned. The initial understandings of this system begin with the reader's early explorations of the alphabetic principle in Ehri's next stage of word learning.

Partial Alphabetic Stage. "Children progress to the partial alphabetic phase when they learn the names or sounds of alphabet letters and use these to remember how to read words" (Ehri, 2005, p. 173). The letter-sound connections students make at this stage are considered partial as they only attend to initial and final sounds in words. These

partial connections are due to their current inability to fully segment every sound within words alongside an incomplete knowledge of the alphabet. Students' partial alphabetic knowledge leads them to confuse words with the same letter/sound at the beginning and end of the words; for example, they may easily confuse *skip* and *slop* (Ehri, 2005). The hallmark characteristic of a reader at this stage is the partial alphabetic connections they make as they begin to develop an early understanding of the alphabetic principle. They may spell the name Katie as KT or Jake as JK. As students develop more complete knowledge of the alphabetic system and make more extensive grapheme phoneme connections, they transition to Ehri's next stage of word learning, the full alphabetic stage, that is typical of a conventional beginning reader.

Full Alphabetic Stage. "Children become full alphabetic phase readers when they can learn sight words by forming complete connections between letters in spellings and phonemes in pronunciations" (Ehri, 2005, p. 174-175). The transition to this stage is indicated by a student's ability to segment each phoneme in a word to facilitate decoding of unknown words. Once students reach the full alphabetic stage, they are able to begin to build a sizable bank of known words by remembering grapheme-phoneme connections that wed pronunciations to meanings. Their more complete knowledge of grapheme-phoneme correspondences allows them to decode words with greater ease, to remember words and identify them immediately "at first sight" and represent all phonemes in spelling. Students in the full alphabetic phase of word learning would spell the name Jake either correctly from memory, or fully phonetically as JAK.

Ehri's (2005) theory of word recognition indicated that learning to read words occurs in a developmental fashion. The idea of development adds to the knowledge base

about the importance of effective instruction by suggesting that literacy instruction should be differentiated to address the developmental needs of the learner. It should also be recognized that this theory provided one side of the two-sided coin of written word knowledge. Becoming literate entails learning to read *and write* words. To further deepen the understanding of how students learn to read and write, a second theory, Henderson's (1981) model of developmental word knowledge provides additional insight into the developmental continuum that students progress through as their early literacy skills develop. In Henderson's theory, spelling, the other side of the written word knowledge coin, is an additional contributor to learning to read and write.

Henderson's (1981) Model of Developmental Word Knowledge

Henderson's (1981) developmental model asserts that an understanding of how students learn to spell words will provide insight into how students learn to read words. According to this model, students' knowledge of written words follows a developmental continuum that, like Ehri's (2005) theory, progresses as students develop cognitively and in response to instruction and experiences. Henderson (1981) suggested that the development of *orthographic knowledge,* the understanding of the written system of language, specifically knowledge of the correct sequence of letters, not only has direct influence on students' spelling, but also on word recognition. Henderson's (1981) developmental model posits that students progress through stages from a preliterate, nonreader to a conventional, skilled reader. Henderson's model describes five stages of developmental word knowledge beginning before formal schooling and extending through adulthood. The two earliest stages are most relevant to the current review and are discussed in detail.

Preliterate Stage. Henderon's earliest stage, the *preliterate stage*, corresponds with the emergent reading stage and Ehri's (2005) prealphabetic stage. Students in the preliterate stage have yet to learn the alphabet and are not yet able to make letter-to-speech sound connections in their written representations. The lack of knowledge of the alphabetic system for students in the preliterate stage severely limits their ability to accurately identify or spell words and leaves students guessing to read or spell using arbitrary visual cues and symbols. As students are provided opportunities for experiences and direct instruction targeted at their developmental needs, they will begin to learn letters and sounds that they will begin to apply to their reading and spelling attempts. The late preliterate student will begin to represent the most salient sounds in their writing that often correspond to the initial sound. For example they may write S for house since the S creates the most sensation on the tongue as the word is pronounced. As students begin to develop an awareness of speech sounds within words apart from their meaning, and as they begin to learn the alphabet and its uses, they will begin to build an understanding of the alphabetic principle, which will allow them to progress to the next stage of developmental word knowledge, the *Letter Name Stage.* It is the same understandings of early phonological skills, alphabet knowledge, and the alphabetic principle that begin to facilitate further development of COW-T. The students' early application of alphabet knowledge and phonological skills allow them to begin to attend to and map sounds to letters when analyzing words as they read familiar text. This, in turn, assists their ability to track text by attending to beginning sound.

Letter Name Stage. This period is named for the predominate method that students employ for understanding the written system and spelling words, the sound of

the letter name when pronounced. The letter name H, for example, is pronounced "aitch" and because of this, early beginning readers often use the letter H for the /ch/ sound in words like *chicken*, spelled HKN. The early part of the letter name stage parallels the development of the partial alphabetic reader. Students in the early letter name stage often have a tenuous understanding of the alphabetic principle and use partial letter sound connections to represent sounds in their spelling. For example, when asked to write the sentence, "I see a pretty dog" the early letter name speller may write, "I C A P DG" representing the beginning sounds corresponding to word boundaries. This is similar for the partial alphabetic reader as they often mistake words that have the same word boundaries because they are not yet able to fully segment each phoneme in a word for decoding. Similar characteristics are demonstrated as students attempt to match speech to print, as students only make partial connections and often get off track when they encounter words with more than one syllable.

As students are exposed to various experiences and provided developmentally targeted instruction, they will develop a fuller understanding of the alphabetic principle. In turn, their accuracy with the speech to print match when reading memorized text will aid in remembering words they have read, leading to the transition to the late letter name stage of word knowledge development. At the late letter name stage, students are able to segment words into the constituent phonemes and represent each sound with a written letter. For example, they will now spell the same sentence "I see a pretty dog" by writing I SEE A PRTE DOG. Now the student is able to represent each sound in the word due to their understanding of the alphabetic principle and the word SEE may be spelled correctly due to exposure to print and the word being stored in memory. Again, this

parallels Ehri's (2005) full alphabetic stage of word recognition as students begin to apply their knowledge of the alphabetic principle to decode words systematically from left to right, by applying sound to each letter as they segment a given word.

Bringing Together the Stage Theories

As is evidenced in the descriptions above, Ehri's (2005) and Henderson's (1981) theories would indicate a synchrony of development of reading and spelling. Some researchers have conceived this as the braid of literacy (Bear et al., 2012). According to the braid of literacy, students begin to develop literacy as they are exposed to oral language and are provided experiences with books and stories. The braid thickens and becomes stronger as students enter schooling and are exposed to instruction and provided experiences with spelling, reading, and writing. The idea that these literacy skills are related is supported by many correlational studies. Ehri (2000) reported results from six studies with correlations ranging from .68 to .86 with the majority reporting correlations over .70, indicating a fairly high level of association between the two abilities. Ehri's (2000) findings indicated the effects of reading on spelling and spelling on reading. The effects reported young learners store word specific information in memory gained from reading that they are then able to access and use when spelling. In turn, spelling allows the young learner to learn more about the alphabet system that they are then able to apply when reading. The reciprocal relationship between spelling and reading indicated that each is utilizing the same core base of alphabetic knowledge stored in memory and in the early literacy stages of reading develop in synchrony.

Pulling Three Perspectives Together

The situated literacy perspective informs what we know about the learning-to-read process by recognizing the importance of what it means to be literate through engaging in authentic reading and writing experiences for tangible purposes. The developmental perspective suggests that not only should the instruction provided in classrooms be integrated and allow for ample opportunity for authentic reading and writing, but the instruction should also be differentiated to address the developmental needs of learners. Furthering this understanding, specifically about the necessary skills for early literacy development, the components perspective adds to what we know about development by detailing critical aspects of early literacy skills.

Relationship to COW-T

One little recognized but powerful instructional approach to the teaching of component skills within an authentic, integrative context is called *concept of word in text* (COW-T). COW-T subsumes almost all of the outside-in and inside-out skills described by Whitehurst & Lonigan (1998), Storch and Whitehurst (2002) and NELP (2008) because in the act of fingerpoint reading the student is utilizing knowledge of language (oral language) while applying knowledge of how print works (concepts about print) to point directionally left to right and top to bottom in a familiar text. As the student begins to recite the text, they are looking to confirm that the word they say begins with the same sound (phonological awareness) and letter (alphabet knowledge) that they stated. Decades of research have detailed instructional approaches that incorporate the developmental instruction of COW-T in authentic, meaningful contexts. Instructional approaches to the teaching of COW-T have been called by other names such as The

Language Experience Approach to the teaching of reading (Nessel & Jones, 1981; Stauffer, 1970). What these approaches have in common is that they subsume the component skills in the closest simulation to real reading for students who are not yet readers in the conventional sense. By the very act of instructing COW-T, students begin to develop identities as readers by being called a reader and engaging in the instructional practices that further develop understandings of the communicative purposes of reading and writing. COW-T instruction involves students engaging with familiar text, familiar by virtue of memorization or repetition, to apply the critical early literacy skills they are learning such as letter knowledge beginning sound awareness and concepts about print as they practice "reading" the text.

The orchestration and application of the component skills of alphabet knowledge, phonological awareness, concepts about print, and oral language occur in the developmental progression of the acquisition of COW-T in response to instruction that emphasizes utilizing oral language to apply concepts about print, alphabet knowledge, and phonological awareness skills. The developmental progression of COW-T instruction aligns well with both stage theory and the orchestration of the component skills outlined by Whitehurst and Lonigan (1998), Storch and Whitehurst (2002), and NELP (2008). The instruction of COW-T addresses the developmental nuances of each of the component skills to assist students in progressing from the pre-reader of prealphabetic and partial alphabetic stages to the conventional reader of the full alphabetic stage.

COW-T is conceived as having three stages or phases of development requiring nuanced instruction to nudge students to the next phase. The three phases are referred to as *developing, rudimentary,* and *firm* (Blackwell-Bullock et al., 2009). Developing

COW-T is defined as students on the lowest end of the continuum that demonstrate limited knowledge of the one-to-one correspondence between speech and print, have limited alphabet and letter sound knowledge, and may demonstrate confusion with conventions of print. Rudimentary COW-T is defined as students that have moved along the continuum and rely on partial letter sound correspondences to make a speech to print match when reciting text, but demonstrate difficulty remembering words out of context. Another characteristic of rudimentary COW-T is difficulty with pointing to words with more than one syllable due to attention to only partial letter cues. Firm COW-T is defined as the pinnacle of the continuum in which students can now accurately make the speech to print match in memorized text and use their full alphabetic knowledge to remember words out of context. These three phases align with Ehri's (2005) stages of word recognition and Henderson's (1981) developmental word model stages. Table 1 shows the alignment of each of the stages.

Table 1

Alignment of Ehri (2005) and Henderson (1981) with COW-T Developmental Levels

COW-T Continuum	**Ehri's Stages of Word Recognition**	**Henderson's Model of Developmental Word Knowledge**
Developing	Prealphabetic	Emergent/Preliterate
Rudimentary	Partial alphabetic	Early Letter Name
Firm	Full alphabetic	Mid-Late Letter Name

Students with a developing COW-T will also demonstrate characteristics of the prealphabetic reader due to their limited letter knowledge, letter-sound knowledge, and

directionality, as they are practicing fingerpoint reading in memorized text. They are also often considered emergent/preliterate spellers due to similar reasons of inability to make letter sound matches in their spelling. Students with a rudimentary COW-T will demonstrate characteristics of a partial alphabetic reader due to their partial letter sound connections, developing knowledge of concepts about print, and early application of beginning sound knowledge, as they read familiar text with more accuracy. Students with rudimentary COW-T are also often considered early letter name spellers as they begin to represent salient sounds in words, frequently the beginning sound. Students with a full COW-T will demonstrate characteristics of the full alphabetic reader as they are now making full grapheme-phoneme connections and demonstrate firm concepts about print as they fingerpoint read predictable text with accuracy. Students with firm COW-T are also often considered letter name to late letter name spellers as they begin to represent all phonemes in their spelling.

The development of COW-T for an emergent reader is a pivotal moment in the transition from pre-reader to reader in the conventional sense and demonstrates the developmental amalgamation of the component skills, the developmental progression of stage theory, and the inclusion of integrated, authentic literacy experiences. In order to facilitate the acquisition of a COW-T, the component skills must be taught, the developmental stage of the learner must be reflected, and the situated context in which instruction is provided must be considered. However, without exploring the empirical evidence supporting the importance of COW-T as a critical early literacy skill, the argument for its importance is incomplete. The empirical research conducted over the last 60 years regarding the development of COW-T is discussed next.

What Do We Know: Concept of Word Research and Related Studies

The empirical research of the last 60 years details the importance of students' ability to match spoken words to printed words, a COW-T recognized as the pivotal transition between emergent and beginning reading. Although COW-T encompasses a small line of research, the findings of the available studies provide a robust foundation of support for the importance of this essential early literacy skill.

Early Research on Concept of Word in Text

One of the earliest researchers to examine students' ability to match spoken words to printed words was Clay (1967). In a longitudinal study in New Zealand of 100 beginning readers at school entry, Clay observed students' attempts to read and recorded all reading behaviors. The observational results found that students in the pre-reader stage had to learn information related to three areas: (a) ability to recognize the difference between letters and words, (b) ability to understand the conventions of print, specifically directionality, and (c) ability to construct appropriate oral responses. A fourth and related reading behavior was observed once students had attained some skill in the three reading behaviors. The behavior was the integration of two or more of the reading behaviors that Clay (1967) termed "matching behavior," where students attempted to match what they said to the print in some way. These observations revealed interesting findings related to the development of COW-T. The findings revealed that before students could integrate skills to match speech to print they had to learn to discriminate the difference between letters and words, understand the conventions of print, and construct an oral response related to the print. The study did not indicate a developmental sequence of the three

skills, but nonetheless provided initial evidence of what is needed for students to progress from pre-reader to beginning reader.

Additional observational records indicated that as students' "matching behavior" increased they began to use their finger to "voice point," matching what is said to what is printed, to each word as it was read aloud. Clay (1967) argued that the pre-reader's emphasis of pointing to each word is considered a highlight of the pre-reader stage, as the student is then demonstrating the ability to match what is said or read aloud to what is printed, allowing the reader to further develop skill that will eventually lead to more fluent reading. The ability to attend to the visual representation of words is essential for developing as a reader; therefore, this early study provided initial empirical evidence featuring critical early reading behaviors and indicated the need for further investigation into how these fundamental reading behaviors develop. Following Clay's (1967) study, Edmund Henderson and several of his students began to further investigate the phenomenon of COW-T.

Similar to Clay (1967), Henderson (1981) also supported the notion that the attainment of COW-T was a pivotal event for beginning readers. Henderson (1981) asserted that students gained insight into isolating words and matching spoken word to printed word, "by slowing down the pace of "talk" and speaking to the print, the temporal-spatial match between spoken word is made, the significance of space and pause emerges, and the concept of word gradually crystallizes" (p. 85). He believed that the crystallization of COW-T occurred as students engaged in various experiences with written language. Even so, Henderson (1980) added to Clay's findings by claiming that

the attainment of COW-T would facilitate students' ability to remember words seen in text and to attend to individual phonemes in those words when he stated:

> The ability to identify words in text as individual and nameable objects appears to be a "watershed" event in learning to read. Children who cannot point to individual words as they "read" a memorized text learn few words and cannot reliably segment spoken words. Children who *can* identify individual words in text learn words and are able to segment by phoneme with astonishing accuracy. It seems to me that the notorious difficulty prereaders have with tasks of auditory discrimination hinges on this phenomenon. It is not that prereaders cannot discriminate phonemes or learn so called letter sounds; in fact, they must in order to speak. It is simply that, lacking a stable concept of word as a bound figure with a beginning and an end, they cannot know where to focus their attention. (p. 9-10)

To further examine the notion that COW-T is somehow related to increased phoneme awareness abilities for beginning readers, Darrell Morris, one of Henderson's students, conducted a series of studies. Following his dissertation research, Morris set out to further investigate the relationship between COW-T and phoneme segmentation. Morris and Perney (1980) conducted a study with 40 kindergarten students selected from four classrooms taught by two teachers, one with phonics based instructional approach and one with a traditional non-phonics based instructional approach. Students were administered pre-tests on pre-reading measures and post-tests targeted to examine phoneme segmentation abilities and COW-T abilities. Students were selected based on pre-test scores of at least the fifth stanine, indicating at least average performance on these measures. The post-test measures included: (a) tapping for each word in an orally presented sentence, (b) circling words in a printed sentence, (c) identifying which square in a matrix contained only one word, (d) spelling a selection of twelve words to demonstrate phoneme segmentation, and (e) identifying words in and out of context as well as finger point reading as part of the COW-T assessment. These measures

determined if students' scores on word boundary/COW-T tasks correlated to their ability to represent phoneme segments in spelling. Correlational results regarding the relationship between COW-T and phoneme segmentation revealed a moderately strong correlation (r = .50) with spelling also being moderately correlated to the circling task (r = .39) and strongly correlated to the tapping task (r = .66) and identifying a single word (r = .73). Morris then conducted a second study comprised of two experiments to further investigate the relationship between COW-T and phoneme awareness.

In the second, two-experiment study, Morris (1983) examined the relationship between COW-T and phoneme awareness with beginning readers during the first month of first grade. In the first experiment, 21 first grade students were selected from three classrooms representing students of high, middle and low reading ability based on teacher report. Students were assessed on a measure of COW-T and phoneme awareness. The COW-T assessment included a pre- and post-test word recognition task, fingerpoint reading a memorized poem, and word identification in a single line and all four lines of text. The scores on all tasks were combined for a composite COW-T score. The phoneme awareness measures included a phoneme segmentation task that asked students to repeat a word and then tap for each phoneme segment heard in the word and a ten-word spelling test scored based on sequential consonant phoneme segments represented in the students' spelling. Correlational results provided additional support for the findings from the 1980 study. COW-T was strongly correlated with both the phoneme segmentation task (r = .72) and the spelling task (r = .63).

While these results supported Morris and Perney's (1980) findings, the sample size was small, so a second study was conducted one year later. The experiment was

replicated with 23 first grade students from two classrooms in a different location and testing was conducted during the first month of the school year. The only change to the study was the phoneme segmentation task was removed and a more complex spelling task was used. The spelling task now included attention to sequential consonant and vowel phoneme segments in the scoring of the student's spelling to produce a total number of points for the entire spelling task. Correlational results of the second study further confirmed the relationship between COW-T and phoneme awareness with a strong, significant correlation ($r = .83$).

The correlational results presented provide evidence of a strong relationship between COW-T and phoneme awareness, but additional research is needed to further explore the hypothesis proposed by Henderson (1980). Henderson (1980) proposed that students' ability to attend to word boundaries, indicated by their attainment of COW-T, allowed students to focus their attention within word boundaries to analyze the phoneme segments present in a word. The hypothesis indicated a sequential order in which COW-T precedes phoneme awareness. While Morris' results indicated a relationship between COW-T and phoneme segmentation, it did not indicate causality. Without evidence to support causality, the sequence of the relationship between COW-T and phoneme segmentation is unclear; does attaining COW-T facilitate phoneme awareness or does phoneme awareness facilitate COW-T? Over the next decade, Morris sought to study the relationship to see if he could determine the nature of the correlation between COW-T and phoneme awareness.

The early studies related to COW-T provide initial support for the current study. It is clear from the work of Clay (1967), Henderson (1980, 1981), Morris and Perney

(1980), and Morris (1983) that COW-T is a critical early literacy skill, developed over time through various experiences with written language, to include in instruction for students in the emergent-to-early beginning stages of reading. However, it is important to recognize that more work was needed to fully investigate the relationship between COW-T and phoneme awareness leading to additional research in the next two decades.

Concept of Word in Text: Developmental Sequence and Other Related Research

Before the publication of Morris' next study examining the relationship between COW-T and phoneme awareness, Ehri and Sweet (1991) conducted a study to examine the relationship of fingerpoint reading, knowledge of print concepts, and phoneme awareness. The study purposefully selected 36 students between four and a half and six years old, in preschool or kindergarten, that were not reading words by sight yet. Students participated in two days of assessment and training. Training was conducted to help students memorize the story for fingerpoint reading (COW-T) and to learn phoneme segmentation procedures. Assessments included a variety of tasks including: fingerpoint reading memorized text, word recognition in isolation, word recognition in lines of text, reading a list of preprimer words, recognizing altered text, distinguishing between similarly spelled nonwords, and phoneme segmentation task. Stepwise regression analyses were conducted to determine the best model for each dependent variable.

Several findings related to fingerpoint reading were reported. Mean percentage correct results revealed that students had the least difficulty with memorizing the story. Difficulty increased with pointing to the words in each line, and further increased when asked to match their voice with pointing. These results further corroborated the notion of a developmental continuum of COW-T. Correlational results indicated that voice-point

matching was highly correlated to pointing accuracy (r = .89) suggesting that the barrier to accurate fingerpoint reading is learning to point to make an accurate voice-print match. The regression analysis indicated that one independent variable, phoneme segmentation, explained the variance in fingerpoint reading, suggesting that phoneme segmentation facilitates fingerpoint reading. However, another researcher examined the data and suggested another possible explanation.

Flanigan (2003) offers an alternative interpretation of the data from the Ehri and Sweet (1991) study that would support the possibility that finger point reading facilitates the acquisition of phoneme segmentation abilities. Flanigan (2003) noted that his study was only a point-in-time study looking at correlations between variables and as such, study results could not support causation. However, Flanigan (2003) asserted that if the variables in the Ehri and Sweet analysis were switched, meaning that if fingerpoint reading were the independent variable and phonemic awareness the dependent variable, "an equally plausible interpretation could be that the experience of fingerpoint reading text influence children's phonemic awareness" (p. 38); therefore, supporting Henderson's (1980) hypothesis that COW-T facilitates students' ability to segment phonemes in words. Further evidence supporting this hypothesis is found in Morris' (1993) study.

Morris (1993) conducted a longitudinal study in kindergarten to test a developmental hypothesis about the progression of word knowledge. The hypothesis proposed by Morris (1993), based on prior research and clinical observations, posed a developmental progression starting with the attainment of beginning consonant knowledge. In this first stage, Morris hypothesized that the emergent reader begins using what they know about letter sound knowledge to attend to the first letter or sound in the

word. Beginning consonant knowledge allowed the emergent reader to begin to make a speech to print match and track print by attending to the beginning letter or sound in the word. Following beginning consonant knowledge, Morris claimed that a COW-T develops next. In this second stage, readers continued to have varied, supported experiences with written language. Such experiences allowed them to solidify their attention to beginning consonants and ability to recognize the space between words, which in turn, further facilitated attention to the final word boundary. The attention to both initial and final consonants allowed the reader to solidify their COW-T. According to the proposed model, once COW-T is attained and the reader is able to accurately match speech to print, the reader focused on and attended to all parts of the word facilitating phoneme segmentation. The ability to segment words into their constituent phonemes led to the final stage, word recognition. Full phoneme segmentation was noted as critical for word recognition as it allows the learner to isolate the word in the minds eye and attend to all sounds for accurate storage in memory (Adams, 1990).

Morris (1993) tested the proposed developmental sequence in a study with 53 kindergarten students from three classrooms. Over half the students were in one of the two classrooms that received systematic reading instruction; the other students were in a classroom that emphasized oral language skills with little formal reading instruction. The students were assessed individually four times, approximately two months apart, over the course of the year. The assessment measures included tasks of alphabet recognition, beginning consonant awareness, COW-T, phoneme segmentation, and word recognition.

To analyze the potential for the developmental sequence, Morris employed the Guttman scale analysis, a form of analysis “that can provide evidence for the

developmental nature of a series of tasks" (Morris, 1993, p. 145). To conduct the analysis, accuracy criterion were set for each assessment task with established percentages of 70% for beginning consonant, COW-T, and phoneme segmentation and 30% for word recognition. Possible patterns of performance were also delineated and are presented in Table 2. For each given task, if a student met the criterion for the task the student was given a + and a 0 if not. According to the hypothesis, a student would not receive a + on a given task without having mastered all tasks lower in the sequence.

Table 2

Possible Patterns of Performance Predicted by Morris' (1993) Model

Patterns	Beginning Consonant (70%)	Concept of Word (70%)	Full Phoneme Segmentation (70%)	Word Recognition (70%)
Pattern 1	0	0	0	0
Pattern 2	+	0	0	0
Pattern 3	+	+	0	0
Pattern 4	+	+	+	0
Pattern 5	+	+	+	+

Adapted from Morris (1993, p. 145)

The Guttman scale analysis was then applied to individual performances at each assessment point over the course of the year to investigate support for a developmental sequence. If a student's sequence followed one of the possible patterns shown in Table 1 it was considered a "hit." If the student's performance did not follow one of the possible patterns, meaning the student met the criterion for a higher skill on the developmental

sequence without meeting those lower in the sequence as well, it was scored a "miss." The analysis revealed overwhelming support for the developmental sequence with over 90% fitting the predicted developmental sequence. In addition, due to the instructional differences in the classrooms, analyses were conducted for the students in each instructional approach. In the classroom with systematic reading instruction over 91% fit a predicted model and in the classroom without formal reading instruction 90% fit a predicted model, suggesting the developmental sequence was consistent regardless of instructional approach.

Morris' (1993) study contributed foundational evidence for a developmental sequence supporting Henderson's (1981) assertion that COW-T can facilitate phoneme segmentation abilities. The results also provided additional support for the developmental perspective in that the sequence the component skills are taught is important for targeting instruction for early literacy acquisition. The finding suggesting a developmental sequence also yielded additional empirical evidence for the notion supported by Clay (1967), Henderson (1980, 1981), and Morris (1980, 1983) that COW-T is a pivotal skill for the emergent reader in the transition to beginning reading.

Ehri and Sweet's (1991) study also confirmed what was reported in Morris' (1983, 1993) studies by demonstrating the importance of phoneme segmentation to the voice print match of COW-T. However, Ehri & Sweet (1991) did contradict one finding of Morris (1993) in that they reported phoneme segmentation preceded COW-T rather than followed. Flanigan (2003) offered a possible alternative explanation by switching the variables during analysis, in turn changing the direction of influence. The research supports strong evidence of a relationship between phoneme segmentation and COW-T.

In addition, there is also strong support for the influence and predictive power of letter knowledge and invented spelling. One of the most powerful and interesting findings was the support for a developmental sequence of skills in which COW-T plays a pivotal role in the acquisition of word recognition abilities (Morris, 1993). In the early 2000s, Morris et al. (2003) and Flanigan (2007) set out to further examine Morris' (1993) findings of a developmental sequence.

Developmental Sequence of Early Reading. With intent to replicate Morris' (1993) study with a larger sample and over a longer period of time, Morris et al. (2003) investigated the developmental sequence in a longitudinal study in kindergarten and first grade. Morris et al. (2003) proposed a model of early reading development consisting of seven components: alphabet knowledge, beginning consonant awareness, COW-T, spelling with beginning and ending consonants, phoneme segmentation, word recognition, and contextual reading. The developmental model, similar to the one proposed and tested by Morris (1993), also added the element of when the components were "expected to exert their developmental influence" (Morris et al., 2003, p. 309) by indicating which assessment time during the study they expected each skill to emerge. At the beginning of kindergarten (Time 1) the model proposed that alphabet knowledge and beginning consonant knowledge are most influential, noting that alphabet knowledge precedes and facilitates knowledge of beginning consonants. The middle of kindergarten was when COW-T and spelling with beginning and ending consonants developed according to the model. The model predicted that these two skills emerge simultaneously (Time 2). By the end of kindergarten (Time 3), the model suggested phoneme segmentation emerged. The sequence then placed word recognition emerging and

exerting influence two months into first grade (Time 4), as students are able to apply knowledge from kindergarten to remember and store words. Finally, by the end of first grade (Time 5), contextual reading was the skill of interest.

To test the theoretical model of reading development, 102 kindergarten students, selected for participation based on parental permission, in four schools were assessed at five different time points over the course of their kindergarten and first grade school years. Students were assessed on measures of alphabet knowledge, beginning consonant awareness, COW-T, spelling with beginning and ending consonants, phoneme segmentation, word recognition, and contextual reading. Literacy instruction was not the focus of this study, but is noted that the instruction students received would influence their reading and writing development. Each teacher was interviewed twice and the data was reported to note the overall literacy instruction students received. Across the school year, all students were exposed to instruction related to alphabet knowledge, phonological awareness, read alouds, and early writing.

Structural equation modeling was employed to test the fit of the proposed model of reading development or to determine if a different model was a better statistical fit. The analysis revealed that the data fit Morris et al.'s (2003) proposed model. Path coefficients were also examined to determine the relations among the variables. All coefficients were significant and supported a positive relationship among the variables. In addition, descriptive analysis of the data was conducted to determine the median change performance over time for each variable. Results found that several pairs of variables rose in tandem over the course of the year: alphabet recognition and beginning consonant awareness, COW-T and spelling with beginning and ending consonants, and phoneme

segmentation and word recognition. The analysis also found that changes in each pair preceded changes in the next; for example, changes in alphabet knowledge and beginning consonants preceded changes in COW-T and spelling in beginning and ending consonants, supporting the developmental progression predicted by the model.

Morris et al.'s (2003) study replicated the findings of Morris' (1993) study supporting the important role of COW-T in early reading for young learners. The findings "suggest that concept of word in text may play a linchpin role in reading development, helping to bridge an early form of phoneme awareness (beginning consonant) with a later form (segmentation)" (Morris et al., 2003, p. 320). Further support for the importance of COW-T and the developmental sequence supported by Morris (1993) and Morris et al., (2003) came from a study by Flanigan (2007) who sought to validate the model proposed by Morris (1993).

Flanigan (2007) conducted a study to validate the developmental model proposed by Morris (1993) that hypothesized that each of the following skills precedes the next skill in a developmental sequence: beginning consonant knowledge, COW-T, phoneme segmentation ability, and word recognition. Flanigan's (2007) study was designed to replicate the results of Morris' model by testing the model in two ways. The first was analyzing the model one stage at a time using a cross-tabulation procedure to determine if each lower skill was a necessary, but insufficient skill for the next in the developmental sequence. The second was testing the validity of the model using Guttman scale analysis to determine the extent to which the model accurately predicted the proposed developmental sequence. The study was conducted with 56 kindergarten students from two classrooms. All participants spoke English, did not qualify for or receive special

education services, and returned a signed parental consent form. Although not the primary focus, instructional practices were observed in both classrooms and interviews were conducted to discuss the provided literacy instruction. The qualitative data indicated the teachers provided a balanced approach to literacy instruction, defined as instruction that addressed both code based skills and the application of skills in meaningful contexts. Students were assessed on a battery of five assessments measuring beginning consonant awareness, COW-T, spelling, phoneme segmentation, and word recognition over the course of two weeks. Each assessment measure was assigned a mastery criterion for the analysis. The following measures were assigned a criterion of 90%: beginning consonant awareness, COW-T, and full phoneme segmentation. The spelling task required at least 75% on each of the five words administered as well as 75% mastery on the word recognition task.

The results of the cross-tabulation analysis were used to evaluate if the previous skill in the developmental sequence was necessary, but not sufficient for mastery of the next skill in the sequence, as predicted by Morris' (1993) model. To fit Morris' (1993) model there were three possibilities: did not master either skill, mastered the lower skill in the sequence but not the higher, or mastered both. The cross tabulation of beginning sound awareness as a necessary but not sufficient skill for COW-T revealed that all students fit one of three possibilities. The analysis proceeded with a cross-tabulation that examined COW-T as a necessary but insufficient skill for phoneme segmentation. Two measures of phoneme segmentation were used including oral phoneme segmentation and spelling. The analysis revealed that all students fit one of the three possibilities that were predicted by Morris' (1993) model. The final cross tabulation examined phoneme

segmentation as a necessary but insufficient for word recognition. All but six students fit one of the three possibilities to fit Morris' (1993) model. The six students that did not fit one of the models had mastered a core sight word vocabulary without mastering phoneme segmentation first. Because of this result, Flanigan (2007) decided to see if COW-T was a necessary, but insufficient for word recognition, so a fifth cross-tabulation was conducted. The results indicated that all students fit one of three possibilities that fit Morris' (1993) model. Overall, the cross-tabulation findings support Morris' (1993) model providing additional support for the proposed developmental sequence.

In addition to examining each stage of the model, Flanigan (2007) also conducted a Guttman scale analysis to examine the overall accuracy of the developmental model. The analysis used the same mastery criterion specified for the cross-tabulations. To score individual student's performance, the student was assigned a + if the criterion for that task was met and a 0 if the criterion was not met. Table 3 details the five hypothesized patterns predicted by Morris' model. If a student's individual performance matched one of the five hypothesized patterns, it was scored a hit; if not, it was scored a miss. The results revealed that approximately 90% fit one of the hypothesized patterns, providing strong support for the developmental sequence proposed by Morris (1993).

The findings of the Flanigan (2007) study replicated the findings of both Morris (1993) and Morris et al. (2003) and validate the conceptual framework guiding the developmental sequence of early reading. These studies delivered a stronger base of convergent evidence for the importance of COW-T instruction for emergent readers. While Morris et al., (2003) examined alphabet knowledge in the developmental sequence prior to beginning consonant awareness and reporting results in support of the

progression, another recent research study took a step back to examine the role of syllable awareness, as mediated through letter knowledge and beginning sounds, on developing COW-T.

Mesmer and Williams (2015) conducted a study examining the role of syllable awareness in a model of COW-T development. The Mesmer and Williams (2015) model of COW-T proposed that syllable awareness would have an indirect impact on COW-T in the following sequence: syllable awareness preceding letters and sounds preceding COW-T. The participants were 101 preschool aged students included based on center or school participation and parental consent. The students were assessed on measures of COW-T, beginning sound awareness, letter naming, and phonological awareness. Structural equation modeling was employed to find the model that best fit the data. The analysis found the data fit the model proposed by Mesmer and Williams (2015) with all pathways statistically significant. The analysis also reported the standardized direct and indirect effects in the model with findings showing an indirect effect of syllable awareness on COW-T. The indirect effect finding suggested when syllable awareness goes up by 1 standard deviation, COW-T increased by .74. The model also examined the direct effect of letters and sounds on COW-T. The direct effect finding suggested when letters and sounds increased by 1 standard deviation, COW-T increased by .99. These findings highlighted the role of syllable awareness in COW-T. Mesmer and Williams (2015) summarized the findings of the study best, “Essentially, the findings showed that given knowledge of letters and initial phoneme awareness, preschoolers also require an awareness of syllable to accurately fingerpoint read text with multisyllabic words (i.e., concept of word in print).” (p. 10) The study built on what is already known by exploring

how syllable awareness plays a role in COW-T development. Mesmer and Williams (2015) suggested that syllable awareness aids with COW-T when students have a base knowledge of letter sound knowledge allowing them to refine COW-T abilities. This is because words can be one, two, three or more syllables, which complicates the task of focusing on beginning sounds at the beginning of word boundaries.

In summary, the empirical support of COW-T as a critical early literacy skill is small, but strong. The findings of the studies reviewed in this section have added to the knowledge base in two main ways. First, the correlational results reported by Morris (1983) and Ehri & Sweet (1991), while noting study design and task differences making comparison not equal, converged in support of a relationship between phoneme segmentation and COW-T. Second, the three studies (Morris, 1993; Morris et al., 2003; Flanigan, 2007) conducted as a result of Morris' (1983) study examining the correlational relationship between phonemic segmentation and COW-T significantly contributed to what is known about COW-T. Morris (1993), Morris et al., (2003), and Flanigan's (2007) findings all converged on a developmental sequence that suggested COW-T as a playing a "linchpin role" in early reading, as it bridges early phonological (beginning sound) and late phonological (phoneme segmentation) skills that ultimately lead to word recognition necessary for beginning reading. Although not directly testing Morris' (1993) developmental sequence, Mesmer and Williams (2015) add an earlier skill to the sequence by providing initial evidence for the need for syllable awareness for young students to accurately learn to fingerpoint read.

As suggested by the empirical research, COW-T is a critical early literacy skill necessary for the transition from emergent to beginning reader. Therefore, it is essential

to understand what is known about the instructional practices that support the development of COW-T and how COW-T incorporates the situated, developmental, and components perspectives.

Concept of Word in Text Instruction

As argued in this review, one critical early literacy skill, COW-T, encapsulates the viewpoints of the three emergent literacy perspectives guiding the current study. One way to demonstrate how these perspectives are amalgamated in COW-T is by reviewing what is known about effective instructional practices. Resources addressing COW-T instruction date back decades and have become more refined in the last ten to fifteen years based on current knowledge from the research base. This section will provide a historical perspective detailing the support for an early COW-T instructional approach, a brief review of the research base supporting the importance of COW-T, and end by describing the evolution of effective COW-T instructional practices.

Historical Perspective of COW-T Instruction

The notion of instructing COW-T can be traced back over 60 years ago beginning with early research supporting an instructional approach, the *Language Experience Approach*, that specifies methods for utilizing student experiences and their developing oral language to document personal stories that are then used for reading, writing, and language instruction. More formally, the Language Experience Approach is defined as "a method in which instruction is built upon the use of reading materials created by writing down children's spoken language" (Hall, 1977, p. 2). Research in the mid 1900s focused on the effectiveness of the Language Experience Approach for reading instruction. In an early review of research on experience approaches in comparison to more traditional

(often basal reader) programs, Wrightstone (1951) found that the research does not provide a conclusive answer to which program exerts more influence on students' reading, but did note that the trend is in favor of the experience approach. A second review conducted by Hildreth (1965) reported similar findings to Wrightstone's (1951) in that results reviewed from experimental studies revealed favorable outcomes for students in the experience approach. Hildreth (1965) suggested that the evidence from the studies reviewed indicated that students taught systematically with the experience approach performed as well as and even better than those using traditional basal reader series. One study yielded negative results for the approach, which was not systematic its delivery in comparison to the other studies that employed more structured experience instruction. Nevertheless, the evidence cited by Wrightstone (1951) and Hildreth (1965) provided the first research based support for the use of the Language Experience Approach.

In a similar time frame of the Hildreth (1965) review, studies related to COW-T were also conducted. As discussed in the COW-T research, Marie Clay (1967) conducted a study of beginning readers by observing the reading behaviors of beginning readers at school entry. The study highlighted the importance of "matching behaviors" in which students were matching speech to print by pointing to printed words with their fingers as they recited memorized text. Henderson (1981) echoed the importance of matching speech to print indicating it was a pivotal event for beginning readers and coined the term for this phenomenon, concept of word in text. Referring to students' facility in matching speech to print through "fingerpoint reading," Henderson (1980) posited that COW-T would facilitate students' ability to attend to phonemes in words and aid in the transition between emergent and beginning reading. Morris (1980, 1983, 1993) explored this

proposed relationship between phoneme awareness and COW-T in a series of studies. He found a strong correlational relationship between COW-T and phoneme awareness. To further explore this relationship, Morris (1993) examined a developmental progression of early reading skills to determine their sequence. Findings supported a developmental sequence in the following order: beginning consonant knowledge, COW-T, phoneme segmentation, and finally, word recognition. The finding of Morris' (1993) study provides the conceptual framework for this inquiry and suggested that COW-T plays a critical role in facilitating full phoneme segmentation. Morris et al. (2003) and Flanigan (2007) replicated Morris' (1993) study further supporting this conceptual framework. This small, but important line of research provides the empirical base supporting this critical early literacy skill, COW-T. This research also provides evidence for the importance of examining COW-T instruction in the current study.

The studies discussed thus far provide supporting evidence for the Language Experience Approach as an instructional method for early reading and also the importance of COW-T for early reading achievement. Interestingly, the instructional methods detailed by the Language Experience Approach mirror the instructional recommendations suggested as effective for developing a child's COW-T, indicating that research supporting the instruction of this critical early literacy skill has a long standing history. The evolution of instruction targeted to address the development of COW-T is discussed next.

Early Instructional Practices

In the early 1970s, Russell Stauffer authored one of the earliest instructional resources for practitioners that fostered the development of COW-T, although at the time

it was not referred to as such. Nevertheless, the instructional practices described by Stauffer laid the foundation for the approach suggested as current best practice for developing a COW-T. Stauffer (1970) detailed instructional procedures for practitioners to implement the language experience approach. Stauffer (1970) made clear that his recommended approach integrated components of language arts and students' experiences while simultaneously heeding the importance of meaning in reading instruction. Thus, Stauffer's approach considered the level of the student's literacy development, the use of context in reading instruction, and the necessity of teaching reading skills to foster application.

Stauffer's procedures for implementing the Language Experience Approach began with demonstrating for students that "reading is no more than talk written down" (Stauffer, 1970, p. 22). To demonstrate the premise, he recommended that the teacher elicit a narrative account of students' experiences through student-produced dictations. This "dictated experience" account was conducted with the whole class by arranging for the students to have a shared experience, such as a field trip or something arranged to occur during the school day. Detailing the approach, Stauffer (1970) described a three-day instructional sequence.

During the first day of the instructional procedure for a class dictated story, the students orally shared the experience as the teacher recorded each student's dictation. Afterwards, the teacher read back each student's statement and then read the entire story to the class with additional readings throughout the instructional period including modeled fingerpoint reading. Students then drew something related to the dictated story

while the teacher wrote the title of the story on the page or encouraged the students to write the title as best they could.

The second day students were divided into small groups; one group met with the teacher and the rest participated in teacher prescribed learning activities. Students were arranged in small groups by similar need or mixed ability, depending on the instructional goals. The small group began with the teacher rereading the story followed by a choral reading with the teacher modeling pointing to each word as it was read aloud. Students were then invited to individually "read" the story. The teacher provided strategic support, based on individual need, with any portion of the story not memorized. Follow the reading, students were asked to point to specific words in the text while the class gathered to observe. The demonstration ended as the teacher wrote words, from the story, in isolation on the board and asked students to read the word.

On day three, the teacher gave each student an individual copy of the story and spent time one-on-one with each student as they read the story together. Every word the student read independently was underlined. As students gained proficiency with the procedures, they reread the story silently, underlining independently known words. Books related to the class story were included in the reading center to foster connections between words in the class story to those in the provided books allowing for transfer of knowledge from one context to another.

As the teacher gained valuable information about individual student's needs through assessment, students were grouped with others of similar need. Students then had the opportunity to dictate small group or individual stories following the same procedure. Stauffer (1970) noted that the transition from whole group to individual dictations was

important since individual stories produced greater outcomes because of the personal connection. Targeting student need in grouping provided an efficient method to facilitate the transition.

To create a comprehensive approach, the instruction using the language experience stories extended to include word bank work and writing. *Word banks* are a collection of known words harvested from rereading and used for word study. In this case, words were harvested from the underlined words from the rereading of the stories and written on cards for each student. Stauffer (1970) suggested several instructional activities such as matching word bank words to the text or word hunts in other provided texts to build a bank of known words. Writing activities encouraged students to use word bank words and also apply burgeoning letter sound knowledge to write for sound.

The approach detailed by Stauffer (1970) incorporated many important aspects of the critical early literacy components identified as necessary for emergent literacy instruction as well as procedures that reflected individual development and a meaningful context for learning. The initial dictated experience allowed students to see that what they say can be written and read. The teacher modeled many critical behaviors in writing the story, repeatedly reading, and voice pointing to each word as they read. The behaviors demonstrated the use of the alphabet for writing by modeling that letters correspond to sounds that are mapped in a sequence to create words, highlighting critical phonological, alphabet knowledge, and concepts about print. It also demonstrated that what is written can be read and what we say when we read is matched to what is written. In the small group interactions students “read” the words they knew, most often their name, making critical letter sound connections, applying concepts about print, and using oral language.

The teacher also facilitated work at the word level as students identified words in context and isolation, bringing additional focus to letter and letter sound knowledge. All of the procedures outlined in the language experience approach worked to facilitate the ultimate acquisition of word recognition through meaningful, situated learning experiences. As argued in this review, the language experience approach is directly connected to the conceptual framework of the proposed study. The language experience approach taught students the necessary component skills, in a developmental nature, through an instructional sequence evolved from meaningful learning experiences.

Contributing additional detail to Stauffer's (1970) instructional sequence, Nessel and Jones (1981) published another resource describing procedures for the language experience approach. The procedure for eliciting the dictation from students was the same, but Nessel and Jones offered a five-day sample weekly plan for activities displayed in Table 3. The sample schedule was not intended as a rigid format; rather it was suggested as an example of addressing all necessary components across one week.

Table 3

Sample Weekly Plan for Language Experience Approach to Reading Instruction

Monday	**Tuesday**	**Wednesday**	**Thursday**	**Friday**
Discussion of stimulus/ experience	Rereading story	Underlining known words	Independent follow up activities	Catch up activities- e.g. word cards
Recording dictation	Underlining known words	Teacher directed follow up activities	Teacher checking of known words	Independent activities
Rereading story	Illustrating story	Independent follow up activities	Making word cards	Review of word bank cards
Immediate follow up activities	Teacher-directed follow up activities			

Adapted from Nessel and Jones (1981)

On Monday, the procedures for the discussion of the stimulus, recording the dictation, and rereading the story were the same as described by Stauffer (1970). The immediate follow up activities were also similar including finding specific words, determining the number of times a specific word occurs in the story, and identifying words in isolation while also adding identifying words in context and determining if anyone knew the word. If unsure of a word in or out of context, the students learned a strategy of "reading in" where they read the line aloud including the unknown word and attempted to identify the word again. The inclusion of strategy instruction granted critical opportunities for identifying unknown words and drawing attention to the word for analysis.

Tuesday procedures mirrored those shared by Stauffer (1970) for rereading, underlining known words and illustrating the story, but included additional vital activities for teacher directed activities. Teacher directed follow up activities targeted three main areas: sight vocabulary, word-attack skills, and reading comprehension. Instructional activities for sight vocabulary included identifying words in context, isolation, underlining known words and strategies for figuring out unknown words. Word attack skills instructed students to use context, structural analysis, and phonics. The reading in strategy facilitated context as a word attack skill. Basic premises of *structural analysis*, analyzing words by meaning unit to determine unknown words, were introduced to help with meaning connections (e.g. adding *s* to the end of cat makes it plural, meaning more than one cat). Phonics instruction included strategies to help students develop alphabet knowledge and letter sound correspondences. The strategies suggested included identifying letters using words from the story, identifying beginning sounds and other

words that begin with the same sound, finding words in the story that begin with a certain letter or sound, and manipulating a known word by changing the beginning sound (e.g. changing can to man). The phonics instruction for each small group varied based on developmental needs of the students. Comprehension instruction was targeted during the dictation, and extended through teacher written stories utilizing language and vocabulary from the class story.

After an increased focus on teacher directed instruction Tuesday, the emphasis shifted Wednesday to include independent practice. Again, students underlined any additional known words and participated in teacher directed activities. In addition, they worked on sight words, word attack, and comprehension skills independently. The independent work time included a variety of games and activities that yielded additional time for practice of skills and strategies taught in small group. The independent activities also granted students opportunities to engage with the story to further refine their skills and abilities.

On the fourth day, practices including word bank work and identifying words in context were applied independently. The students engaged with their story through independent activities, the teacher reviewed known words with individual students, and students made word cards for the known words. Friday provided an opportunity to catch up as well as continued practice with independent activities and word bank words. The activities discussed as part of the sample week plan provided a multitude of opportunities for the learner to engage with reading, phonological awareness, alphabet knowledge, concepts about print, writing, and oral language.

While many of the key ingredients are similar, Nessel and Jones (1981) elaborated on what is known about the language experience approach by specifying how to use the context of the story to address the component skills during instruction and how the components coalesce as a result of this instructional method. Stauffer (1971) and Nessel and Jones' (1981) methods provided comprehensive, practitioner targeted resources for implementing the language experience approach. Nessel and Jones (1981) contributed further support for how the language experience instructional approach encapsulates the three perspectives guiding this review. The five-day plan provided students with opportunity for meaningful experiences with text that targeted the necessary components in a developmental manner. There are also recent instructional resources published in the last ten years or so that support very similar practices for developing COW-T. Each resource and approach is discussed next.

Recent Instructional Resources and Practices

In an approach designed to instruct students based on their developmental reading stage, Morris' (2005) *Howard Street Tutoring Manual* described lesson plans directly targeted for instructing individual students based on their current reading stage. Morris' (2005) manual detailed a lesson plan for addressing COW-T as part of the emergent lesson. The lesson plan for the emergent reader followed a four-part format. The components of the plan included rereading books, word study, sentence writing, and introducing a new book. The rereading component directly addressed COW-T. During the rereading component, the student reread familiar, leveled text while pointing to each word practicing the ability to make the speech to print match, attended to beginning consonants, and began to establish a small sight vocabulary of words harvested from the

books and identified in context and isolation. The word study portion targeted developmental level and addressed alphabet knowledge, beginning consonants, or word families. In the sentence writing section, the student wrote a sentence of choice with varied support based on individual need. The lesson concluded with introducing a new book. During the last part, the student previewed the book with a picture walk and then fingerpoint read the text, with the teacher providing assistance as needed. The lesson plan incorporated all the necessary components of early literacy instruction. The portions that directly addressed COW-T are re-reading and new reading, but each section has important bearings on other sections. Morris (2005) best described the interrelated nature of the lesson plan:

> The knowledge gained through fingerpoint reading the simple texts (e.g., attention to the spoken-word-written word match, beginning consonants, sight vocabulary, etc.) is applied in the sentence-writing activity. Conversely, the letter-sound knowledge that is exercised in sentence writing is applied in the book reading. Even the seemingly isolated work on alphabet letters, beginning consonants, or word families is immediately put into practice each time the student fingerpoint reads a book or invents spellings in sentence writing. The result is an integrated tutorial lesson that melds the whole-to-part and part-to-whole learning in a meaningful way. (p. 85)

The procedures put forth by Morris (2005) directly incorporated practices to develop COW-T in an integrated lesson plan. The lesson detailed by Morris (2005) directly linked the three perspectives by incorporating the component skills, instructed at students' developmental level, in an integrated, meaningful way and included a clear demonstration of how all three perspectives coalesce in COW-T. Johnston, Invernizzi, Juel, and Lewis-Wagner (2009) provide a similarly structured lesson plan, but detail more specific COW-T procedures in *Book Buddies: A Tutoring Framework for Struggling Readers.*

Johnston et al. (2009) also detailed a lesson plan including four parts: rereading and concept of word; alphabet, word study, and writing; language play; and new reading. Like Morris (2005), the Book Buddies lesson plan encompassed practices to develop COW-T within an integrated framework concentrated on differentiated skill instruction within a meaning-based contextual format. The procedures for each part of the lesson were similar to those described by Morris (2005), but the rereading and COW-T section provided additional detail for specific instruction targeting COW-T for the emergent reader and will be detailed here.

The rereading section allowed students to repeatedly read familiar text and extended learning with specific instructional activities to address COW-T. Johnston et al. (2009) detailed explicit procedures for guiding the rereading and COW-T section. The lesson began as the student fingerpoint read familiar books with the teacher monitoring to ensure the student pointed to each word as it was read aloud. Scaffolded supports were provided if the student got off track with pointing. If this happened, the teacher first waited to see if the student self-corrected; if not, the student reread the line with support for pointing, if needed. If rereading the line proved unsuccessful, then the teacher directed the student to look at the beginning sound of the word identified incorrectly. Again, if unsuccessful the teacher provided the word. Once students reread a book across three or four lessons they received a text copy of the book. A *text copy* is a one-page typed copy of the text that removes picture support and encourages the student to attend to printed words when rereading. The emphasis on the word and beginning sounds to accurately track speech to print enforced the development of COW-T. Additional follow up activities further enforced reading strategies.

The COW-T follow up activity included three options: cut up sentences, highlighting words, and reading and matching word cards. The activity chosen depended on the student's developmental degree of COW-T. Cut up sentences described an activity where students matched individual words to the same words in a sentence strip. This activity allowed the student to have a model of accurate tracking and matching, individual practice tracking the sentence, and practice matching individual words by attending to beginning and ending sounds. Highlighting words detailed an activity in which the student highlighted specific words on the text copy after rereading and tracking the text. This activity gave students the opportunity to analyze each word, beginning and ending sound as it is read with the intent to only highlight the requested word. The final activity included reading and matching word cards that accompanied the book the student reread. Just after rereading the book, the cards were displayed and the student was asked to read them. If the student was unable to automatically read the word, the tutor read it. Next, the student found the word in the text and matched the word to the text as they discussed beginning and ending sounds. This activity allowed students to identify words in isolation or if needed, in context, while attending to beginning and ending sounds.

The specific COW-T instructional strategies added depth to the instructional practices discussed so far by further addressing specific strategies to refine the students developing COW-T. Johnston et al. (2009) accomplished this by describing specific strategies for guiding fingerpoint reading and follow-up activities, based on where the student is on the developmental continuum, for guiding students to apply knowledge of the component skills, to analyze words, to make the necessary speech to print match for COW-T. Utilizing an analogous lesson plan, Johnston, Invernizzi, Helman, Bear, and

Templeton (2015) provide the most comprehensive approach, specific to COW-T instruction and informed by research, to date in *Words Their Way For Pre-K-K*.

As part of a larger resource addressing the components of an emergent plan (rereading, word study, writing, and new reading), Johnston et al. (2015) presented a five-day whole-to-part approach for instructing COW-T. The instructional recommendations from this resource followed a gradual release model in which learners are provided various models, guided practice, and independent practice opportunities. This five-day plan detailed an instructional sequence, based on where students fall on the COW-T continuum that provides the learner with ample practice in and out of text, working with the whole text and the various parts, to apply what they have learned about the early literacy components. An overview of the plan is provided in Figure 2, by day of the week, with the instructional focus outlined. The small group lesson plan followed a before, during, after reading format. Before reading, students participated in warm up phonological or word bank activities depending on their level of development in COW. The during reading portion focused intensely on the whole-to-part plan working with fingerpoint reading text and moving to working with smaller parts of text. The after reading portion included phonics instruction. The specific activities chosen for each part of the lesson varied depending on the developmental level of the students in the small group. Since the whole-to-part plan is the heart of COW-T instruction, that portion is detailed next.

	Day One	Day Two	Day Three	Day Four	Day Five
COW-T Instructional Focus	Introduce the Whole	Work with Sentences	Work with Words	Work with Letters and Sounds	Work with Whole and Assess Parts

Figure 2. Words Their Way for Pre-K-K five day whole-to-part instructional sequence. Adapted from *Words Their Way for Pre-K=K by* F. Johnston, M. Invernizzi, L. Helman, D. Bear, and S. Templeton, 2015, p. 159.

The sequence of the whole-to-part plan began with a whole class introduction to a chosen text. During this time, students memorized the text and also experienced a model of fluent reading and accurate tracking. After memorizing the text, day one continued with additional modeling, choral and echo reading opportunities as well as individual guided practice with an enlarged version of the text selection in differentiated, small groups. Day two included students rereading the text chorally and possibly individually for additional practice, before working with sentences. The work with sentences included students rebuilding cut-up sentence strips and chorally or independently saying the words as it is rebuilt, with supports varied by developmental level of COW-T. Each student then received an individual copy of the text to place in the student's own reader for later rereading and practice. Day three varied depending on students' developmental level. Students with a developing COW-T reread the text chorally before matching word cards to one line of the text. For additional practice, they rebuilt the cut-up sentence and identified specific words in context. Students with a rudimentary COW-T individually fingerpoint read the text before identifying words in context. The students matched, found, or identified the selected words that were later added to word banks. At this point in the sequence a new selection, to be used the

following week for whole-to-part instruction, should be introduced to the whole class. Day four detailed work with letters and sounds. Students with developing COW-T reread the text with the teacher calling attention to letters and sounds that students found in the text. The letters and sounds became the word study feature for instruction. Students with rudimentary COW-T reread the selection and found letter sound matches. Instruction continued by reviewing previous letter sound matches and the ones called during this specific lesson became the focus of new instruction. After day four, the new phonics sort for the following week was introduced. Finally, day five consisted of informal assessments. Students with developing COW-T individually read and then found specific letters and words after reading. The teacher observed each student and made informal assessment notes. Students with rudimentary COW individually read and then identified two to five specific words in context that were harvested for word banks. Again, the teacher observed each child and made informal assessment notes. The detail included in the five-day whole-to-part lesson plan provided tremendous support for addressing specific student needs and incorporating all the component skills within a situated literacy context.

The coalescence of the component skills in COW-T is well-stated by Johnston et al. (2015), “COW-T must be constructed by emergent readers as they coordinate looking for initial letters, listening for beginning sounds, and pointing to individual words in running text” (Johnston et al., 2015, p. 144). Mapping the components onto the tasks involved in COW-T will further demonstrate the consolidation of the component skills in this critical early literacy skill. Students that are constructing COW-T must look for initial letters (alphabet knowledge), listen for beginning sounds (phonological

awareness), and point to individual words (mapping oral language) in running text (concepts about print). The instruction students receive is also differentiated to address development needs, not only in terms of COW-T, but the other component skills that also develop along a continuum. Finally, the activities addressed across the evolution of COW-T instruction are designed to provide the student with authentic, meaningful literacy experiences.

As evidenced in the evolution of COW-T instruction, methods for promoting the development of COW-T, although not always directly referred to as COW-T instruction, have been around for over 60 years. The current professional resources targeted for practitioner use in the classroom provide direct, concise recommendations for incorporating COW-T into early literacy instruction. What remains unknown, based on the current base of research knowledge, is what teachers are actually doing in their classrooms. To be able to provide support for classroom teachers, through professional development and other avenues, it is imperative to have insight into current teacher practices, so research and professional development can be accurately targeted to maximize impact on teacher practice.

Summary

The literature presented in this review indicates the need for further research. Research on the situated literacy perspective indicated effective teachers employed an integrated approach to early literacy, through use of meaningful, authentic experiences (Pressley et al., 2001), which produced greater reading outcomes (Xue & Miesels, 2004) under experimental conditions (Hatcher et al., 1994; Ukrainetz et al., 2000). While recognizing the importance of meaningful, authentic experiences, questions linger

regarding the instructional practices used in classrooms today that foster the development of students' identities as readers. A second perspective, the developmental perspective, provided two models that suggested students progressed through stages of reading and spelling development that develop in conjunction for young learners (Ehri, 2005; Henderson, 1981). Again, the research provides an understanding that developmentally targeted instruction is necessary for literacy growth, but further research is needed to explore the extent teachers provide developmentally timed instruction. The components perspective added to what was known by identifying the crucial early literacy skills necessary for later success in reading, but found that instruction that addressed the components alone was insufficient (Whitehurst & Lonigan, 1998; Storch & Whitehurst, 2002; NELP, 2008).

While each perspective individually is important, it is argued that the combination of all three perspectives provides a comprehensive approach to early literacy instruction. The coalescence of all three perspectives is reflected in an early literacy skill, COW-T. Research evidence indicated the importance of COW-T by documenting the relationship to phoneme segmentation abilities (Morris, 1980; Morris, 1983) and proposing a developmental sequence, in which students attain critical early literacy skills, supporting COW-T as a vital component of the sequence leading to word recognition abilities (Morris, 1993; Morris et al., 2003; Flanigan, 2007). While the empirical research on COW-T provides an essential, quantitative foundation supporting the importance of COW-T, it is also important to recognize what is known about instructing COW-T. Over 60 years of research and resources have provided instructional approaches that address COW-T instruction (Johnston et al., 2009; Johnston et al., 2015; Morris, 2005; Nessel &

Jones, 1981; Stauffer, 1970), but little is known about what practitioners are doing in classrooms to foster the development of COW-T for young learners. The current study aims to fill these gaps in the research base by qualitatively examining early literacy instruction in kindergarten classrooms to determine the instructional practices, relative to COW-T, teachers utilize in their small group instruction in light of the components, developmental, and situated literacy perspectives.

Chapter III: Research Methodology

This chapter details the research design and methodology for the current study. The following sections present the purpose, research question, research approach, research site and participants, data-collection methods, data analysis procedures, quality criteria, and researcher as an instrument statement.

Purpose and Research Question

The purpose of this study was to explore the nature of early literacy instruction, specifically concept-of-word-in-text (COW-T) instruction and instructional methods used for developing COW-T, and how the components, developmental, and situated literacy perspectives are implemented in small group settings in kindergarten classrooms at Westbrook Elementary School and Southbridge Elementary School. The following research question guided the study in order to better understand the extent teachers incorporate the development of critical early literacy components and COW-T instruction in kindergarten small group literacy settings. The research question also considered the situated contexts in which such instruction occurs, and resulted in a thick description of the instructional methods employed.

What concept-of-word instructional methods, relative to Morris' (1993) conceptual framework, do kindergarten teachers at Westbrook and Southbridge Elementary Schools implement in their small group instruction?

The answers to the research question build on the empirical base of research in emergent literacy instruction by providing descriptive evidence of the instructional

practices of teachers related to the critical components, COW-T instruction, and instructional methods in two elementary school settings. The resulting evidence has potential to add to the small but robust line of existing research, guide future research, and provide needed knowledge to inform professional development for future and practicing teachers.

Research Approach

Qualitative inquiry is recognized as a process of building understanding and making meaning of a phenomenon with the researcher as the primary instrument of the research (Merriam, 2009). Primarily, qualitative research is approached from an interpretive perspective (Rossman & Rallis, 2012). The interpretive perspective conceives that meaning and understanding is constructed through the meaning making of individuals that results in thick description of the object of analysis (Rossman & Rallis, 2012). Erickson (1986) reported that interpretive methods are appropriate when examining the how and what of happenings in a specific place for building specific understanding through documentation of actual concrete occurrences in the setting. This perspective guides my work in the current study to allow exploration of the what, the why, and the how of kindergarten COW-T instruction.

The current study is structured as a multi-site case study of two elementary schools with four teachers nested within Westbrook Elementary School in the Willow Public School district and five nested within Southbridge Elementary School in the Cypress Public School district. Case study research is defined as "in-depth and detailed explorations of single examples" (Rossman & Rallis, 2012, p. 103). The multi-site case

study approach was appropriate for this study as it allowed detailed exploration of kindergarten teachers' COW-T instruction and methods.

Research Site and Participants

The study utilized an existing set of qualitative data collected by a team of researchers, myself included, examining the use of data in kindergarten classrooms for a larger funded research project. The data were collected across an entire academic school year in two elementary schools in the Willow Public School district and two elementary schools in the Cypress Public School district in a mid-Atlantic state.

Context of Research Site

Prior to the initiation of the larger research project, both districts were actively involved with an organization that was providing professional development sessions and consultation on a variety of topics including data use, administration of literacy screening measures, and differentiated literacy instruction. The professional development provided in regards to literacy instruction for kindergarten teachers was specific to COW-T instruction. The COW-T professional development delivery model differed in intensity for the two districts. The kindergarten teachers in Willow Public Schools received a series of face-to-face training sessions focused on COW-T instruction. The consultant did not meet with these teachers individually or provide additional coaching beyond the interactive professional development sessions. The kindergarten teachers in Cypress Public Schools were involved in a more intensive coaching model focused on COW-T instruction. This model involved the teacher videotaping a COW-T lesson, the consultant reviewing each video while taking notes, the consultant and teacher meeting individually to review the video, and talking through the consultant's notes indicating both strengths

and areas of need. Following individual meetings with the teachers, the consultant met with the entire kindergarten team, the school reading specialists, and administrators to reiterate common things that were going well, discuss areas of need, and recommend next steps. This cycle only occurred once as this coaching model was implemented towards the end of the school year (Interview with Consultant, October 2015).

Additionally, both school divisions, like most school divisions in the state, participate in a statewide policy initiative to prevent reading difficulties in later grades. The policy initiative includes implementing a universal literacy screening in kindergarten and access to digital resources for planning instruction including electronic lesson plans (ELPs). While the focus of the current study is not about the efficacy of coaching or focused on change of instructional practices, this contextual information does provide beneficial background knowledge of the two districts and indicates that the kindergarten teachers in both schools had at minimum baseline knowledge of COW-T instruction, knowledge of how to utilize literacy data, and had access to digital resources for planning instruction.

Sampling Rationale

From the larger sample of data collected in the two districts, two schools were purposively selected for analysis in the current study. Westbrook Elementary School in Willow Public Schools and Southbridge Elementary School in Cypress Public Schools were purposefully selected to increase authenticity of the data being analyzed for the study. I was involved in the data collection procedures for both schools and was able to actively participate in the research team meetings in which these two sites were discussed. Thus, my insight and knowledge of these particular settings was informed by

first-hand observations, interviews and think-aloud protocols as well as by ongoing research team meetings where further details were discussed.

Research Sites

Westbrook Elementary School is located in a small city in a Mid-Atlantic state. Westbrook Elementary School is part of Willow Public Schools with a population of just fewer than 500 students in grades kindergarten through fifth during the 2014-2015 school year. According to publically available information, student demographics revealed over half of students in the school were Caucasian; approximately 15% of the student population was African American; the remaining students were either Multi-Racial or Hispanic (approximately 10% each). Southbridge Elementary School was located in a mid-size county in a Mid-Atlantic state. Southbridge Elementary School is part of the Cypress Public Schools with a student population of approximately 650 during the 2014-2015 school year. According to publically available information, the student demographics revealed close to 75% of the students were Caucasian, approximately 10% were African American; the remaining students were Hispanic, Multi-racial, or Asian (totaling just over 10% of the student population).

The two sites had similar schedules for the literacy block with approximately two and one half hours of designated time for literacy instruction every morning. The teachers at Westbrook Elementary School began each day with brief whole group instruction followed by small group rotations through a variety of centers. Each group of children met for small group instruction with the classroom teacher and an additional small group directed by the teaching assistant for approximately 25 to 30 minutes each. A similar structure is employed at Southbridge Elementary School. The teachers began with some

type of whole group instruction followed by literacy centers with the teacher being one of the rotations. Unlike Westbrook, Southbridge did not utilize teaching assistants during the small group rotations.

Participants

The participants included kindergarten teachers employed by either Westbrook or Southbridge Elementary School. Survey data collected by the research team was used to provide general demographic information, professional training, and years of experience teaching in kindergarten for each participant. Full demographic information was not available for all teachers, but for the purpose of providing clarity regarding participant background the available descriptive data is described below.

Participants from Westbrook Elementary. During the 2014-2015 academic school year, Westbrook Elementary School employed five kindergarten teachers. Of the five teachers, four participated in the study. The fifth teacher did not participate because it was her first year teaching at the kindergarten level. Ms. Kelly was a white female with a Master's degree in Elementary Education with four years experience at the kindergarten level. Ms. Henry was a white female with a Bachelor's degree in Early Childhood Education and seven years teaching experience at the kindergarten level. Ms. Smith was a white female with a Bachelor's degree in Early Childhood Education and 16 years teaching experience at the kindergarten level. Ms. Garcia was a white female with a teaching degree and an unspecified number of years experience teaching kindergarten.

Participants from Southbridge Elementary. During the 2014- 2015 academic school year Southbridge Elementary School employed five kindergarten teachers all of whom participated in the study. Ms. Clark was a white female with a Bachelor's degree

in Elementary Education in her first year of teaching. Ms. Sanchez was a white female with a Master's degree in Elementary Education and ten years teaching experience in kindergarten. Ms. Williams was a white female with a Master's degree in Elementary Education and six years teaching experience in kindergarten. Ms. Park was a white female with a Bachelor's degree in Elementary Education and two years teaching experience in kindergarten. Ms. Torres was a white female with a Bachelor's degree in Early Middle Education and 14 years teaching experience in kindergarten.

Data Collection Methods

Qualitative researchers employ a variety of data collection techniques including: interviews, observations, and documents/material culture (Rossman & Rallis, 2012). Various sources of data were collected for the larger study that was analyzed again for the current study. Survey data gathered at the outset of the larger project was used to provide general demographic and professional experience information for each participant. An interview with an informant with personal experience providing professional development for both school districts provided information regarding historical and school context. Primary data sources were observations and documents. Additionally, teacher think-alouds were analyzed as a secondary data source. Multiple sources of data strengthened the credibility of the findings by employing triangulation of the data through crosschecking (Merriam, 2009). The data analyzed was collected as part of a larger research project beginning in August 2014 and continuing through May 2015. A detailed log of all the data collected including observations, interviews, think-alouds and documents is included in Appendix A.

Survey Data

The research team for the larger project created a 16-question survey with the first six questions focused on general demographic information and professional experiences. For the purposes of this study, the first six questions were reviewed to gather demographic and professional experience information for the teachers from Westbrook and Southbridge Elementary Schools. The six questions reviewed can be found in Appendix B. This data is described in detail in the participants' section.

Interview

Marshall and Rossman (2011) state, "Qualitative researchers rely quite extensively on in-depth interviewing (p. 142). To provide additional insight to inform researcher knowledge of the context of both schools, specifically focused on the context of literacy instruction that occurs in both school settings, a guided, informal conversational interview with an informant was conducted in October of 2015. The guided interview was chosen as the best approach allowing prepared questions to guide the interview. The purpose of the interview was to provide contextual and historical information to help frame the problem of practice. The informant had previously been engaged with both school districts by providing professional development and consulting services prior to the outset of the larger study. The interview data afforded insight into the historical context and previous training opportunities. The interview questions are included in Appendix C.

Observations

Rossman & Rallis (2012) state, "Observation is fundamental to all qualitative inquiry… Observation takes you inside the setting, and it helps you discover complexity

in social settings by being there" (p. 192). To be able to best understand instructional practices and methods, observation in the natural setting is critical. Observation allows the researcher to learn by documenting actions and then inferring the perceived meaning behind those actions for the participant (Rossman & Rallis, 2012). For this study, I drew upon data that were collected between September 2014 and May 2015, which account for teacher absences and inclement weather. Over the course of the academic year at Westbrook Elementary School, Ms. Henry was observed four times, Ms. Garcia and Ms. Smith were observed five times, and Ms. Kelly was observed eleven times. Ms. Kelly agreed to additional observations that allowed data reflecting the entire literacy block for one week. At Southbridge Elementary School, Ms. Sanchez was observed three times while Ms. Clark, Ms, Park, Ms. Torres, and Ms. Williams were all observed four times.

Documents

The second source of data for the study was the collection of documents. The documents collected for the larger study included teacher lesson plans for scheduled observations. For the current study, review of teacher lesson plans allowed for further analysis of data regarding the planned literacy instruction in each kindergarten classroom. At Westbrook Elementary School, one lesson plan was collected from Ms. Smith and three lesson plans were collected from Ms. Kelly. At Southbridge Elementary School, two lesson plans were collected from Ms. Sanchez, Ms. Torres, and Ms. Williams and three lesson plans were collected from Ms. Clark and Ms. Park. As mentioned previously, all documents collected are noted in the detailed data collection log in Appendix A.

Think Alouds

The third source of data is teacher think-alouds. "Think-aloud is a research method in which participants speak aloud any words in their mind as they complete a task" (Charters, 2003, p. 68). This method of data collection was used in the larger study to better understand teachers' thinking as they talked about their class assessment data and how they use that data to inform instructional decisions. For the purposes of this study, teacher think-alouds allowed additional analysis for insight into teacher thinking and understanding of the components of early literacy instruction including COW-T. The think-alouds also allowed further exploration of how teachers discussed children's development in critical early literacy skills, including COW-T, in relation to the instruction they provide.

Data Collection Procedures

Specific procedures were followed for collecting each data source. During each scheduled visit to the school site, two members of the larger research team observed in each classroom for 30-minute time slots. One observer documented detailed field notes while focusing on the classroom teacher's small group instruction, while the second observer documented detailed field notes of what was occurring in literacy centers. The team originally started with a detailed observation protocol with checklists including a place for running record field notes, but in an early team meeting a more open-ended protocol was adapted to provide for detailed running record field notes regarding participant behavior and dialogue allowing the observer to "capture as much detail as possible about the physical environment and the activities and interactions among the people in that environment" (Rossman & Rallis, 2012, p. 194). Each set of field notes

included data on setting, participant, activities, interactions, conversations, and observer analytic notes or comments. The observation protocol, included in Appendix D, provides an example of the open-ended form used for documenting each visit to the school sites. The field notes were typed on a laptop computer while observing and reviewed before uploading to a password protected collaboration site used by the research team. As a research team, it was decided that the role of the observer was non-participatory to maintain as unobtrusive as possible in the setting (Marshall & Rossman, 2011). My role in collecting observational data included one visit to each school site and is denoted by the bold dates on the log of data collection in Appendix A.

The procedures for conducting think-alouds also included two members of the research team and were scheduled to occur three times with each teacher once during the fall, winter, and spring following literacy data collection. Inclement weather prevented a winter think-aloud at Southbridge Elementary. Each think-aloud session was audio recorded and professionally transcribed. For each session teachers were asked to bring with them their current data being used to make instructional decisions in the classroom. The two researchers conducting the think-aloud would provide the participant with a brief overview of the task by asking them to talk about the data they brought, what these data sources tell them, and how they use it to help guide instructional decision-making. After the participant completed the initial think-aloud with open-ended questions to start the process, follow-up clarifying questions were asked based on the participant's response during the initial think-aloud. Follow-up questions allowed the researchers conducting the think-aloud to clarify statements by the participant or to further explore an aspect of the think-aloud, but were withheld until the participant had fully thought through the

initial task. My role in the think-aloud data collection included conducting one set of think-aloud interviews during the winter at Westbrook Elementary.

The documents collected for this study were teacher lesson plans for the observed lessons. At the outset of the larger project, the research team requested that teacher's share their lesson plans for observed lessons and were reminded prior to scheduled observations. To protect confidentiality, the teacher name was replaced with a pseudonym on all data sources. In addition, for each running record all references to teachers or students were noted using abbreviations for teacher and student.

Data Analysis Methods

The study employed secondary analysis of data of pre-existing qualitative data collected by a larger funded research project. "Secondary analysis is the re-analysis of either qualitative or quantitative data already collected in a previous study, by a different researcher normally wishing to address a new research question" (Payne & Payne, 2004, p. 214). As a member of the original research study that collected the original data, I brought additional knowledge and insight of the context of the primary study to the secondary analysis. The type of secondary analysis used for this study was *supplementary analysis*, which allowed secondary in-depth analysis of an emerging issue that was not addressed by the primary study (Heaton, 2008). As a result of my data collection, participation in research team meetings, and data analysis discussions with the larger research team, further questions regarding the extent and use of effective early literacy practices addressing the critical literacy components, developmental contexts for learning, and COW-T instruction emerged and was analyzed for this study.

Research Team Meetings

As part of the larger project, I participated in regular research team meetings beginning in November 2014. The research team meetings I attended varied in content, but regularly included discussion of most recent data collection, updates on coding, and plans for future data collection and analysis. The team discussions were recorded in meeting notes and used as an initial form of data analysis for the larger project. Outside of regularly scheduled team meetings, I also participated in team coding sessions as part of the initial analysis procedures. The team coding sessions involved individual inductive coding followed by group discussion of each team member's coding process and emerging start codes for further analysis. I participated in two team coding meetings, but did not code any data of the larger project for further analysis.

Analysis

The primary method of data analysis utilized was a procedure detailed by Miles, Huberman, and Saldana (2014) and included three simultaneous activities: (1) data condensation, (2) data display, and (3) conclusion drawing/verification. Data condensation is a process of combining, selecting, and focusing the data to strengthen the data that involves initial analysis through summarizing, initial coding, memos, categorizing, and theme generation (Miles et al., 2014). Data display is a process that allowed meaningful, organized assembly of information that lead to either further analysis or drawing/verifying conclusions. Drawing and verifying conclusions allowed interpretation of the data by virtue of patterns, themes, and explanations that emerged through the analysis process and are verified through triangulation. While it is suggested that this analytic process occur before, during, and after data collection in an iterative

format, the implementation of secondary analysis of a pre-existing data set presented a limitation requiring a modified three-step process that occurred simultaneously post data collection rather than concurrent with data collection shown in Figure 3. This analytic procedure was most appropriate for the study, as it allowed for deep, illustrative description and display of information from each site to best address the research question. A qualitative analysis software program, (Dedoose Version 7.0.23 web application for managing, analyzing, and presenting qualitative and mixed method research data, 2016), was used for data management and analysis purposes (www.dedoose.com).

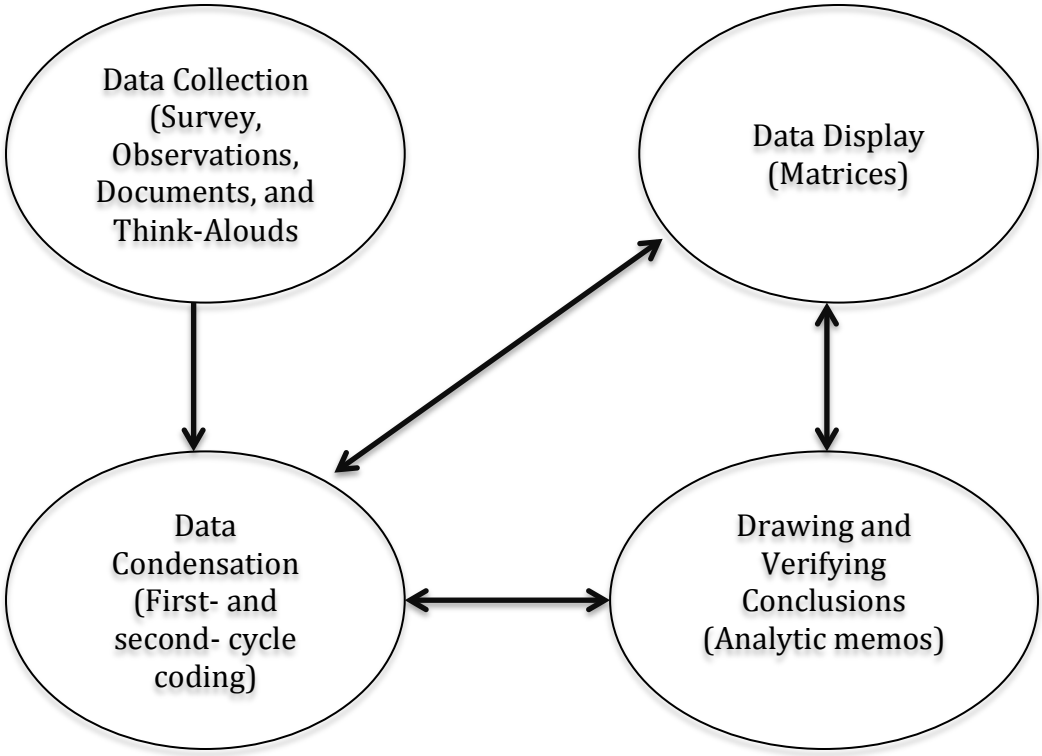


Figure 3. Interactive model of data analysis, modified. Adapted from *Qualitative Data Analysis: A Methods Sourcebook*, by M. B. Miles, A. M. Huberman, and J. Saldana, 2014, p. 14.

Initial analysis began with data condensation through first cycle coding (Miles et al., 2014). This included assigning initial codes, deductively selected based on the conceptual framework for the study, to begin the process of data condensation. Data condensation enabled me "to retrieve the most meaningful material, to assemble chunks of data that go together, and to further condense the bulk into readily analyzable units" (Miles et al., 2014, p. 73). The list of initial start codes for first-cycle coding, derived from the conceptual framework, is presented in Figure 4. The literacy perspectives guiding this research study informed the list of initial start codes. The start codes were derived from the literature addressing each critical literacy component as a primary (parent) code and each phase of the developmental sequence as a suggested sub (child) code. The sub codes are listed below each primary code to demonstrate a progression of skill from least complex to most complex. The sub codes do not signify stage like progression, but rather a continuum of skill development. Additional codes were derived addressing two possible contexts (isolation or socially applied) that instruction may occur and possible tasks or opportunities children may be provided in the classroom related to such contexts. During the data analysis process, additional codes emerged inductively (Miles et al., 2014). This was important to the analysis process, as it allowed codes to emerge rather than forcing the data to fit pre-existing codes (Miles et al., 2014).

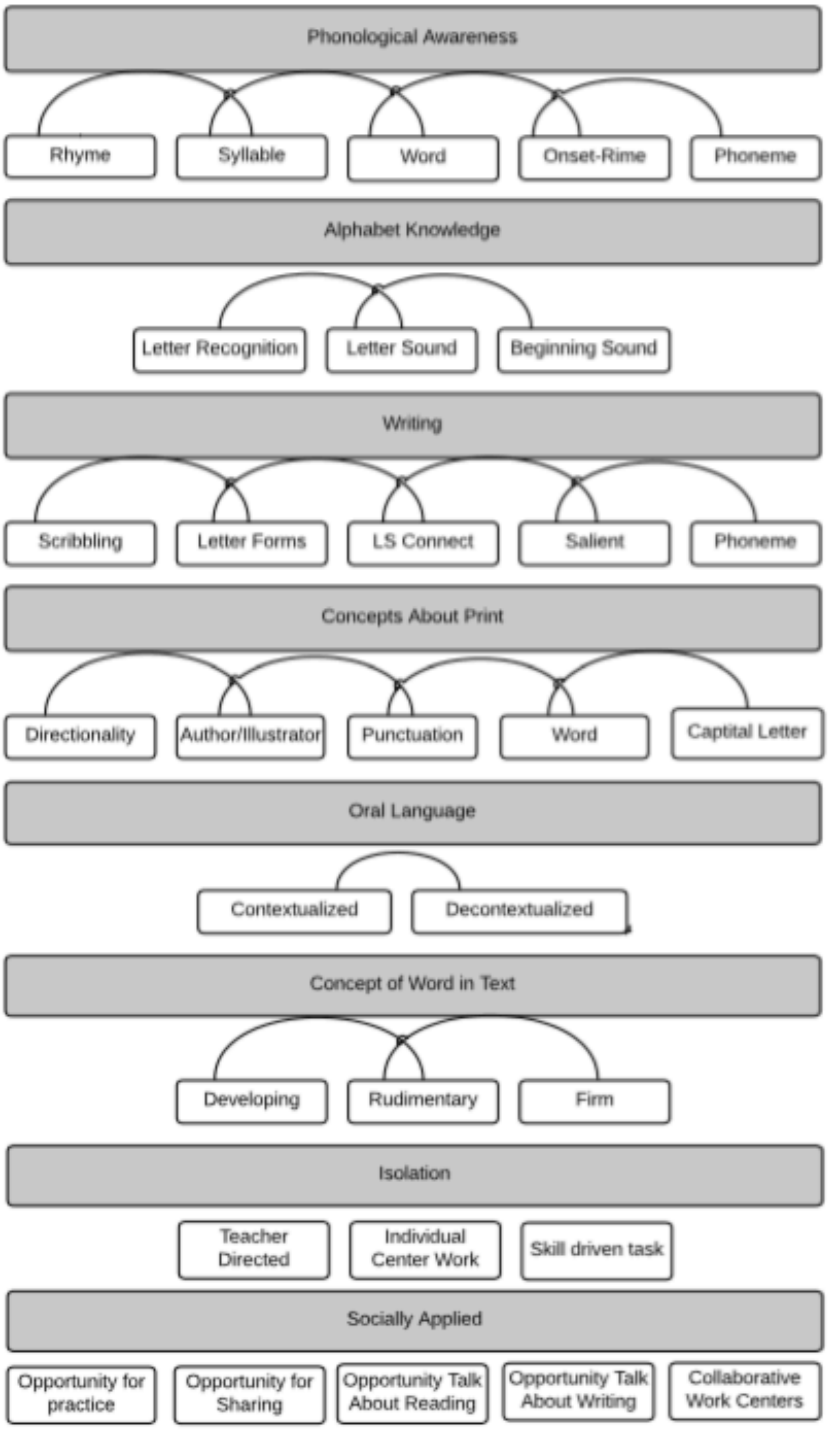


Figure 4. Start codes display demonstrating components from the literacy perspectives (primary code) with phases of the developmental sequence (sub code) listed below.

All codes were recorded in a codebook, with definitions of each code, which was edited and revised to reflect the current stage of analysis. I adhered to the use of the start codes through first-cycle coding using both primary and sub codes, which helped further delineate the larger selections of primary code data. The initial round of coding led to condensing the data, which allowed further in depth analysis during second round coding. The second cycle of coding was inducing patterns identified from the first cycle coding. Pattern coding, a collection of repeated primary codes from first cycle coding that led to patterns or categories emerging in the data, allowed for further condensation of the data as themes and categories emerged from the first cycle coding (Miles et al., 2014). The use of inductive and deductive coding led to revisions of the start codes as the analysis progressed where some codes were added and others omitted. All code changes were documented in the analytic log, which is discussed further below. The final list of codes is included in Appendix E. To ensure trustworthiness of the analysis process, a peer-reviewer reviewed and discussed the codes and analysis procedures to provide feedback. The peer-reviewer met on a bi-weekly basis during the analysis to provide feedback on the analysis process ensuring fidelity to procedure and confirming validity of emerging findings.

The second step of the analysis process was data display (see Figure 3) specifically using matrices. Matrices often include defined rows and columns that permit data to be organized for easy viewing, arranged for detailed analysis, and were most appropriate for the descriptive nature of the research question of this study (Miles et al., 2014). Conceptually clustered matrices were used to explore and draw conclusions from the data. Conceptually clustered matrices are arranged to bring together “research

subtopics, variables, concepts and/or themes for at-a-glance summative documentation and analysis" (Miles et al., 2014, p. 173). This matrix format was used to examine the research question by allowing documentation by participant regarding their early literacy practices including instruction related specifically to COW-T as well as the component skills and contexts for instruction. An excerpt from one of the conceptually clustered matrices is included in Appendix F. Analytic memos were paired with the matrices to "document the researcher's reflections and thinking processes about the data" (Miles et al., 2014, p. 95). The analytic memos were a primary tool for drawing and verifying conclusions, the final step of the analytic process.

The analytic memos that led to drawing and verifying conclusions required the use of many tactics for generating meaning and for testing and confirming findings. The tactics used for generating meaning were noting themes and patterns, clustering, and counting. Noting patterns and themes allowed for drawing conclusions across teachers for determining the use of effective instructional methods for COW-T as well as further exploration of the literacy perspectives guiding this study. The tactic of noting patterns and themes also allowed exploration of the early literacy components incorporated in instruction, the extent teachers addressed students' developmental needs, and the patterns found in the types of instructional contexts. Clustering allowed the categorization or grouping of like patterns or themes to help aggregate the data. Counting is another tactic used to analyze the extent to which teachers addressed COW-T instruction and instructional routines in their literacy instruction that served as a method to inform thick description. The counting tactic was helpful in also identifying patterns and themes, as the frequencies supported the conclusions drawn. To verify the conclusions two tactics

were employed including: triangulating the data through multiple sources and looking for negative evidence. Triangulation was critical to verifying conclusions, as it allowed verification by both method (observation, document, and think-aloud) and by data source (verification by confirming evidence from different observations). To help confirm conclusions, I also looked for negative evidence to confirm or refute conclusions by asking, " Do any data oppose this conclusion, or are any inconsistent with this conclusion?" (Miles et al., 2014, p. 304). The proportion of negative evidence was considered when determining whether or not to refute a potential conclusion.

To document all of my analytic decisions an analytic log was kept. The log included entries by date or week of analysis including reference to the data set analyzed, the procedural steps applied, what decision rules were applied, what analysis step was taken, what conclusions were drawn and any personal reflections. This allowed the analysis procedure to be fully documented to ensure the process was clear, replicable, and logical. To further ensure the logic and clarity of the analytic decisions, the peer reviewer provided feedback on the analytic process. An excerpt of the analytic log is included in Appendix G.

Trustworthiness

According to Rossman and Rallis (2012), "the ultimate aim for a study should be use. That is, the conduct of the study and its findings are sufficiently believable that others will use those findings to take action to improve social circumstances" (p. 59). Thus, it is critical that a study is trustworthy. In qualitative research, the trustworthiness of a study is evaluated by four key elements: credibility, transferability, dependability,

and confirmability (Marshall & Rossman, 2010). This study implemented specific procedures to ensure each standard related to trustworthiness was met.

Credibility

Credibility is concerned with how well the findings of the study represent the data collected and match the reality of what occurred (Merriam, 2009). The first way credibility was addressed in this study was through prolonged engagement in the field (Marshall & Rossman, 2010). The larger study was engaged in the field for an entire academic year. As a member of the team, I was able to participate in data collection procedures in both schools and purposefully selected from the existing data sites that I was actively engaged in the data collection procedures for the current study. At Westbrook, I observed in all but one classroom and conducted one think-aloud session with each teacher. At Southbridge, I observed in all kindergarten classrooms. Prolonged engagement can reduce researcher effects on the study, as participants are not drawn to the researcher presence in the setting. A second way to address credibility is through triangulation of data (Marshall & Rossman, 2010). Multiple sources of data from the original larger study were selected for secondary analysis in the current study. Each source of data served as a source to triangulate findings including: observations, documents, interview and teacher think-alouds.

Transferability

Transferability or generalizability is the ability to determine if the findings are applicable to other situations (Merriam, 2009). The most common way to increase transferability of the study is through the use of thick description, “a highly descriptive, detailed presentation of the setting and in particular, the findings of a study” (Merriam,

2009, p. 227). The inclusion of thick description allows the reader to determine the degree of fit between the findings of the study and their own experience or situation. In the current study, the research team, as part of the larger study, decided to use a more open-ended field note form to allow for rich, thick description in the collected field notes. Each observation included description of what was occurring and what was said in order to recreate the experience in writing. To address transferability, the findings from the analysis include excerpts of this rich, thick description to provide the reader enough information to determine if the findings are transferable to their own situation or experience. Another way to address transferability is by studying more than one case. "The inclusion of multiple cases is, in fact, a common strategy for enhancing the external validity or generalizability of your findings" (Merriam, 2009, p. 50). This study is a multi-site case analysis that allowed for thick description of findings relative to two separate sites increasing transferability of the findings.

Dependability

Dependability is concerned with whether or not there is consistency of the findings, thus asserting that, "rather than demanding that outsiders get the same results, a researcher wishes outsiders to concur that, given the data collected, the results make sense- they are consistent and dependable" (Merriam, 2009, p. 221). One common way to address the dependability of the study is external auditing. An external auditor or peer reviewer is a researcher not involved with the study, which reviews the research process to authenticate the findings (Merriam, 2009). This study utilized a peer reviewer that had developing expertise in the content area being studied, was a member of the research team for the larger study, and familiar with the purposefully selected sites, making her an

ideal peer reviewer. The peer reviewer provided feedback on the data analysis procedures and process through face-to-face and e-mail communication on a bi-weekly basis. The peer reviewer was asked to provide feedback by reviewing field notes, coding, data displays, the analytic log, and findings. All meetings and communication with the peer reviewer were documented in the analytic log. An analytic log or audit trail is another way to increase the dependability of a study. The analytic log included detailed accounts of all research decisions made throughout the duration of the study. An excerpt of the analytic log is included in Appendix G.

Confirmability

Confirmability addresses the extent to which others, external to the study, could confirm the results of the study. Several procedures already discussed increased the confirmability of the study including: peer reviewing, triangulation of data, and the analytic log. Peer reviewing allowed external feedback on all analysis procedures. Multiple sources of data were analyzed to allow for triangulation of findings. The analytic log provided an outlet for recording my reflections and provided insight for others to better understand how I arrived at specific interpretations (Merriam, 2009). It is also critical to recognize my biases, assumptions, and role in the research.

Researcher as an Instrument

It is an important part of qualitative research to reflect on and be aware of my own assumptions and biases. I am currently a doctoral student studying literacy education with practical experiences focused predominantly in the primary grades, specifically kindergarten through third grade with some experiences in fourth grade. I currently teach one course for the university; a course focused on foundations of literacy, which is

required for teacher education candidates at the master's level and for those seeking a reading certificate. The foundation of literacy instruction course provides experience with knowledge related to the stages of literacy development, assessment, diversity, learning difficulties, and English language learners. The course is an online lecture-based course with applicable practicum assignments in which students apply learned content in a lesson with a student.

Additional experiences while in graduate school have included teaching an elementary field experience course, teaching assistant internships with a course focused on reading development and an adolescent literacy course taught online. I have also been a teaching assistant for three summers in a summer literacy clinic for children in kindergarten through ninth grade with one summer at the university's satellite liberal arts campus and two summers at the main university site. These experiences continually influence my belief that high quality instruction is the first, and most critical, approach to provide and remediate reading instruction. My biases about high quality instruction are important to disclose as they influence how I view classroom instruction. I believe that general classroom instruction should be differentiated to address individual student need and be integrated to address all the critical components of early literacy instruction through meaningful, authentic experiences. I believe that differentiated instruction should directly target student need through both individual and small group instruction while maintaining a focus on comprehensively addressing component skills. I strongly believe that reading should not be taught as a set of decontextualized skills, but rather address through meaningful, authentic experiences.

Prior to returning to graduate school in 2012, I taught at the elementary level for four years with experience teaching third and first grade as well as two years as a kindergarten through second grade special education teacher. During my four years of teaching, I was trained in functional behavior assessment to improve teacher response to and preparation for student behavior and as a facilitator in instructional consultation teams focusing on improving staff competence as a route to both systems improvement and positive individual student outcomes. My experience with functional behavior assessment informs my beliefs on how to approach behavioral issues in classroom settings. I believe in analyzing what triggers student behavior to determine the best approach for diminishing unwanted behaviors. These varied experiences at the elementary level always led me back to an underlying need that was pervasive among the population I taught, below average performance in reading. This interest in teaching reading and helping teachers implement practices that address the necessary, critical literacy components in a developmental fashion was first peaked while I was working on my master's degree by an influential professor and increased further with each experience in the classroom.

My interest in the literacy instruction, specifically focused on COW-T, is product of my experiences in the field. I strongly believe that high quality literacy instruction that incorporates the critical components, matched appropriately to children's current developmental needs, in situated contexts can improve early literacy instruction, and have lasting impacts on the pervasive rate of underachievement in reading in this country. I believe that the work of classroom teachers is invaluable and through better understanding of what teachers do in the classroom can the research and practitioner

focused community better serve teachers needs. While my research interests and experiences could lead to potential researcher bias in the study, the methods discussed in the trustworthiness section served to mitigate my biases. Furthermore, it is important to note that the conceptual framework for this study is a compilation of what is currently known in regards to early literacy instruction and is the lens through which I synthesized the literature and interpreted and analyzed the data to best answer the research question.

Summary

This qualitative study was designed to address one research question guided by three influential perspectives on early literacy development focused specifically on COW-T instruction and the instructional methods employed for teaching COW-T in two sites, Westbrook and Southbridge Elementary School. The data collection procedures included observations, documents, think-alouds, and an initial demographic survey. The data analysis employed a three step iterative process suggested by Miles et al. (2014) to include data condensation, data display, and drawing and verifying conclusions. The study design also took into consideration the aspects of trustworthiness that are of utmost importance in evaluating the quality and value of qualitative research: credibility, transferability, dependability, and confirmability.

Chapter IV: Findings

This capstone project describes the instructional practices of kindergarten teachers in two elementary schools in two school districts located in a Mid-Atlantic state. The instructional practices explored relate to student's attainment of concept-of-word-in-text (COW-T), a pivotal event in the steps to conventional, beginning reading. The findings reported in this chapter provide educators and researchers with descriptive information to guide and inform professional development practices for practicing educators, inform curricular decisions of teacher preparation programs, and guide future research projects or questions to further explore the construct of COW-T and related instructional practices. The following research question guides the multi-site case study:

> What concept-of-word-in-text instructional methods, relative to Morris' (1993) conceptual framework, do kindergarten teachers at Westbrook and Southbridge Elementary Schools implement in their small group instruction?

The chapter presents the main finding related to COW-T instructional practices. The finding is substantiated through thematic discussion to demonstrate how the components, developmental, and situated literacy perspectives were applied during small group COW-T literacy instruction in the kindergarten classrooms in this study.

Study Findings

The following sections present my findings based on the data collected and the analysis process. The analysis led to one main finding that encapsulates how small group

COW-T instruction incorporated the three literacy perspectives guiding this study and is shared and discussed next.

Overall Finding

Teachers at Westbrook and Southbridge Elementary Schools planned for and implemented small group instruction that addressed the necessary component skills indicated in Morris' (1993) model for achieving a COW-T. They utilized current COW-T instructional methods, but provided limited opportunities for social application of learning. Evidence for differentiated instruction according to students' developmental literacy stage was weak and inconsistent.

Context of Literacy Block

The kindergarten classrooms included in this study all followed a similar routine for their literacy block. Each teacher included and planned instruction for whole group, small group, and literacy centers each day. To illustrate what this time looked like in each classroom, the following vignette establishes the context for the format and types of instruction provided during the literacy block. Although I use Ms. Kelly as the teacher in the example, the vignette is compiled based on my observations in each of the kindergarten classrooms included in this study.

Entering Ms. Kelly's kindergarten classroom at the beginning of the literacy block, students are seated on the carpet facing Ms. Kelly as she sits beside a bulletin board with a calendar, number line, and weather chart. Beside the bulletin board is an easel with large writing paper. The paper includes a letter addressed to the class from Ms. Kelly. It says, "Good Morning Friends, Today is Thursday. We are learning about the letter b today. We will have P.E. I hope we all have a good day. Love, Ms. Kelly." She

begins by reading the message to students and points to each word as she reads. She continues by having the students volunteer to help identify the day to complete calendar and look out the window to graph the daily weather. She then turns on a CD and the students all sing along to an alphabet song that includes letter sounds and motions. After singing, Ms. Kelly begins to share directions for the learning centers for the day. She shares that students will rotate through centers that include independent work at their seats, computer center, COW-T center, book center, and small group time with Ms. Kelly.

[Students begin to move to a variety of places around the room. There are small groups of students with the classroom teacher and other students are either seated individually at their desks or at one of the many independently driven centers in the classroom.]

A little boy is seated at his desk working on a worksheet. Looking over his shoulder, [I see] the worksheet contains pictures with a selection of letters. The boy is quietly writing the letter that represents the beginning sound of each picture on the provided line. Others seated at their desks are individually completing the same worksheet. Scanning the room there are several small groups of students at other places in the classroom. A few students are seated at a computer center playing an alphabet recognition game. Two others are on the carpet near the bookshelf. They are selecting books from the shelf and flipping through the pages. Another small group of students are at a center with a poem in a hanging pocket chart. They have pointers and are reciting the text from the chart. These small groups of students are completing the designated activity or task with little talk amongst themselves.

The remaining students are seated at a small group table with Ms. Kelly. The students are all facing the teacher who has just handed out copies of the poem of the week. Ms. Kelly asks each student to read to her and then to choose a reading partner. After completing both recitations of the poem, the teacher begins a new task asking the students to find certain words in the text of the poem. The students work to find the word "hill" and when they have located the word Ms. Kelly asks, "How did you know that word was hill?" Students begin to share how they knew the word was hill with one little girl responding; " I knew it was hill because I saw the letter "h" in the word. Ms. Kelly acknowledges her response. Ms. Kelly then proceeds giving other words for the students to find in the text followed by discussion of how they knew it was the given word.

[The students continue through a rotation until all students have completed literacy centers, small group instruction with the teacher, and individual seatwork.]

Following small group rotations, Ms. Kelly invites all the students to join her on the carpet. She holds up a book with a frog on the front. She asks the students to turn to their carpet partner and discuss what they think the book will be about. The buzz of discussion takes over the room. Ms. Kelly brings the students attention back to her and asks for three students to share their thinking. The lesson continues as she begins to read the book periodically stopping to have students discuss what is happening or to relate the story to their prior knowledge.

As evidenced in the vignette, the classrooms are abuzz with activity during the literacy block with multiple opportunities for learning and practice of critical early literacy skills. The vignette highlights the organization of the literacy block that includes a variety of whole group, small group, and independent instructional opportunities. In an

effort to accurately describe teachers COW-T instructional practices and methods as demonstrated in the small group setting, this chapter explores teachers' overall instructional approach, instructional planning, and implemented instruction. The chapter also describes the extent to which students applied taught skills.

To fully validate the finding of this study, each element of the finding is presented and discussed in light of the three literacy perspectives guiding this study: component skills, developmental, and situated literacy. In the following sections, I share the results of my analysis related to the kindergarten teacher's COW-T instruction. First, I detail the kindergarten teacher's COW-T instruction. This section includes results regarding teachers' overall COW-T instructional approach and details the instructional sequence of the approach. Next, I share how teachers planned their small group instruction to address students' developmental levels of COW-T. Then I discuss the implemented instruction related to COW-T instructional routines. The section details teachers' instruction of the COW-T routines, explains how teachers discussed the instruction of the COW-T routines, and addresses student application of the COW-T routines. I close with my conclusions about COW-T instruction in the kindergarten classrooms.

Concept–of-Word-In-Text Instruction

The central focus of this study was the attainment of COW-T and the instructional methods used to instruct students. As indicated in the finding, the discussion begins by first examining small group COW-T instruction. In the next section, I share the results of examining the instructional methods teachers used to help students attain this critical literacy skill.

Overall COW-T Instructional Approach. Teachers in this study planned instruction that specifically addressed COW-T during small group. Additionally, COW-T and instruction of specific COW-T routines were also evident in other instructional periods during the literacy block. Focusing first on the instructional methods, evidence indicated that teachers provided instruction structured similarly, as all teachers that provided lesson plans utilized the same whole-to-part approach for small group COW-T instruction. The whole-to-part instructional lesson plan is designed to use a poem or other easily memorized text across several days of instruction. The instruction begins by working with the whole poem on day one and moves to working with smaller parts each consecutive day. For example, day one the students work with memorizing the entire text of the poem. Day two students again review the whole and then receive instruction matching speech to print at the sentence level. Day three students review the whole and then are instructed at the word level. Day four students review the whole and then work with letters and sounds. Finally, day five students review the whole and then are informally assessed using the poem they have worked with all five days.

Southbridge Elementary implemented the whole-to-part approach across five days of instruction. Westbrook Elementary implemented the approach across ten days of instruction. To adjust to ten days of instruction, teachers at Westbrook provided instruction for two days focused on each part. For example, students worked with the whole for two days before transitioning to working with sentences for two days. Although teachers' written lesson plans for COW-T demonstrated use of the whole-to-part approach, adherence to the lesson plans was not always observed. Nevertheless, deviations from the plan appeared to be related to the students' differential development

of concept of word in text skills and abilities. This section examines both the instructional lesson plans and the observed lesson to fully corroborate the approach employed by the teachers in this study.

COW-T Instruction: Evidence for the Whole-To-Part Approach. Examining the instructional plan, Figure 5 shows a lesson plan for a full week of instruction for one small group in Ms. Park's classroom. While the lesson plan format varied by school and in some cases even by teacher, all lesson plans written for COW-T appeared to follow a whole-to-part format. The lesson plan shows a three-part format: before, during, and after reading. The before reading section for this stage of reading development focuses on building alphabet knowledge. The during reading section focuses specifically on developing COW-T and includes phonological awareness. The after reading section focuses on developing word knowledge through alphabet and phonics instruction. Looking closer at the during reading section you can see each day of the week lists a specific focus for COW-T. For example, looking across each day at the during reading component of the lesson, it is documented that instruction progresses from working with the whole on Monday to smaller parts beginning with sentences on Tuesday, words on Wednesday, and letters and sounds on Thursday. This instructional approach is similar to the one detailed by Johnston et al. (2015) in *Words Their Way for PreK-K* and adapted by the statewide reading initiative through electronic lesson plans (ELPs) available online (https://pals.virginia.edu).

Week: Oct 6-10 | **Teacher:** [redacted] | **Group:** [redacted]

Poem: Peter, Peter Pumpkin Eater

COW Word Bank Words: pumpkin, eater, wife, keep, shell, kept, very, well, Peter, had

Monday	Tuesday	Wednesday	Thursday	Friday
Before Reading: Alphabet **Work with Letters:** - ABC tracking, I Spy for sounds - Letter/sound flash cards				
During Reading: COW *(Introduce the Whole)* **Review the Rhyme:** Use illustrations to prompt review of the rhyme orally. **Play with Language:** Rhyme- Explain that words rhyme if they have the same ending/last sound. Model using rhyme cards- pick the one that rhymes with first picture. Have students explain WHY or WHY NOT and identify ending sound. Help by breaking words apart **Introduce the Text:** Model how to read the text using finger pointing (tracking). Talk about top to bottom, left to right, words and spaces	**During Reading: COW** *(Work with the Parts-sentences)* **Review Text:** Choral reading Echo (if needed) Independent/Partner Reading **Play with Language:** " " **COW Instruction- Work with the Parts: Sentences** Model / Think Aloud matching a sentence. Practice together on pocket chart. Complete with a partner on own copy. Discuss how you know the sentences were the same (words, letters, spaces). Track to check it's correct. Rebuild whole poem together on table using pocket chart as a model.	**During Reading: COW** *(Work with the Parts-words)* **Review Text:** Choral reading Partner Reading **Play with Language:** " " **COW Instruction- Work with the Parts: Words** Model / Think Aloud matching words. Give students individual word cards Have students match their word card to the word in the text. Others spy for word in own poem. Discuss how did you know it was the same word (length of word, known letters) Rebuild sentence-"Cut it up"; cut up the sentence & have student rebuild the sentence then read the sentence	**During Reading: COW** *(Work with the Parts-letters & sounds)* **Review Text:** Echo reading Partner Reading **Play with Language:** " " **Isolate Letters & Sounds** Teacher says "I am thinking of a word that begins like___. Have students point to the word in text "What is the word?" How did you know? (voice point strategy) **Read & Search** Reread own copies Have students find words in their text copies & tell how they found them	**During Reading: COW** *(Review the Whole and Assess the Parts)* **Review the Text:** Independent Reading Partner Reading **Work With Words (if time):** Together practice COW word cards. Practice identifying beginning letter/sound and saying poem in head until you find the word. If still stuck, track to find words in text they do not know and identify. **Assess:** Students will complete word study assessment while teacher individually assesses poem parts (tracking, in text, out of text). Encourage strategies to find a word if a student is stuck.
Read the Text: Choral read Echo read Individual read Review: We track using pointer finger bouncing once on each word, sweep to next line left to right.			**Build Word Bank** Have students work with a partner and match the COW word cards to their text copy and identify the word. OR practice playing I Spy "a word that starts like _" as a group. How do you know?	
After Reading: Word Study **Choose Features:** CFL beginning sounds **Introduce and Model:** Teacher Directed Sort- push students to explain WHY sort piece goes there **Sort & Check** **Reflect:** *Ask students to reflect on their sort by having them complete statements such as, "These pictures are alike because..." or "I sorted pictures in this column because...".*	**After Reading: Word Study** **Sort & Check:** Independent Sort **Reflect:** *Ask students to reflect on their sort by having them complete statements such as, "These pictures are alike because..." or "I sorted pictures in this column because...".*	**After Reading: Word Study** **Sort & Check:** Partner Sort trick game **Reflect:** *Ask students to reflect on their sort by having them complete statements such as, "These pictures are alike because..." or "I sorted pictures in this column because...".*	**After Reading: Word Study** **Sort & Check:** speed sort against teacher, teacher trick game if time **Reflect:** *Ask students to reflect on their sort by having them complete statements such as, "These pictures are alike because..." or "I sorted pictures in this column because...".*	**After Reading: Word Study** **Sort & Check:** Glue assessment and write letter for each card **Reflect:** *Ask students to reflect on their sort by having them complete statements such as, "These pictures are alike because..." or "I sorted pictures in this column because...".*

Figure 5. Weekly lesson plan from Ms. Park's classroom. (Source: Park_LessonPlan_2014.10.06)

Although the observation was only conducted on Monday of the given week, the lesson plan form detailed the instruction that would occur the entire week. The observation provided an illustration of how the teacher guided the students as they worked with the whole during this particular lesson on Monday. The observation began after the group had already started, but picked up as the students participate in reading the text:

> The teacher is working with a group of five students at the kidney table on Peter Peter poem. Ms. Park tells one student, " I like how I saw you touch a word wrong and go back and fix it." The teacher then turns and asks one student to track the poem. The student did it on his own. She then asks another student to track the poem. She couldn't do it on her own and the teacher started pointing with her on the third word of the first line. The last student did it on her own. The teacher then says, "Tell me something we need: Bounce. [The teacher is referring to how many times your finger will touch each word as the poem is recited. She is seeking the response of one.] How many times do we bounce on each word? How many times do we touch each word?" One student responds, "word." Then the student starts reading the poem. The teacher then asks, "How many times did you touch that word?" (Source: Park_2014.10.06)

This excerpt illustrated the implementation of the first day of the written lesson plan and details one way that teachers provided practice working with the whole text during a COW-T lesson. Each student had the opportunity to recite the poem and to practice tracking it, and the teacher provided support as necessary. In this example, the teacher supported students' accurate finger-point reading by referring to touches as 'bounces,' possibly referring to the number of times students were to touch each word as it was read aloud. So even though a word like *little* has two syllables it would only have one bounce, or conversely, because *little* has two syllables it would warrant two bounces. The ambiguity of this situation and the teacher's response to the student's response suggests a lack of discussion about the details of the situated instruction that would help

students understand why and how their fingerpointing might further their development as readers. Nevertheless, another lesson plan and observation illustrated instruction related to the whole and practice with the part in Ms. Smith's classroom. The lesson plan in Figure 6 illustrates a different format used by teachers that details the whole-to-part instruction across two weeks for the students in the COW-T small group.

COW Daily Directions

Monday Tuesday	**Introduce the Text** 1) Introduce the printed text on chart paper or pocket chart (one sentence per line). 2) Model how to read the text by using your finger or pointer to touch every word as you say it. 3) Talk about how you are starting with the first word on the left and touching each word in the sentence as you say it. **Read the Text** 1) Choral Read - Invite the children to say each line with you (chorally) as you point to each word again in a second reading. 2) Echo Read - Ask the children to repeat each sentence after you read it (echo). This will be the third reading. 3) Individual Read - Invite individual students to come up and recite as much of the text as you think they can while pointing to each word. Be prepared to guide as needed to ensure accurate pointing.
Wednesday Thursday	**Match Sentences** 1) Hand out sentence strips. Ask students to match their sentence to a sentence in the pocket chart. Have them place it there. 2) Discuss how they knew the sentences were the same. Prompt for specifics like "starts with" or "the word…". 3) Rebuild the text with and without a model for reference. Use 4-square illustrations (cut up) if helpful. **Read the Text** 1) Practice Individually - Pass out individual copies of the text. Read together as every child tracks the print. Glue copy into their personal readers. 2) Buddy Read - Pair students with a buddy and have them practice reading the text to each other while finger pointing. Ask the non-reading buddy to make sure his or her partner is saying and pointing to each word. Have each partner read twice.
Friday Monday	**Match Words** 1) Pass out individual word cards for each sentence. 2) Have children come up and find the word and place it on top of its match in the pocket chart. 3) Discuss how they knew it was the same word (prompt for letters, beginning sounds). **Rebuild Sentences** 1) Pass out the sentence strips along with envelopes containing that particular sentence cut up into individual words.

	2) Have children rebuild the sentence word by word. 3) Choose one of the following activities. ✓Cut it Up ✓Be the Word
Tuesday Wednesday	**Isolate Letters and Sounds** Choose one of the following activities to help children apply learned letters and sounds. ✓I am thinking of… ✓Cloze **Read and Search** 1) Children reread their own copies. 2) Ask children to find words (or beginning sounds for children still learning the alphabet) in their text copies and have them explain how they found them (what letter or sound they used). 3) Have students highlight or underline the words you asked them to find.
Thursday Friday	**Work with Words** 1) Pass out word bank cards from day 4 and have children divide them in to two piles: words they recognize immediately and words they don't know. 2) Have the children work with partners to find words in their text copy that they didn't know and identify them. **Assess** 1) Allow children to illustrate the text in their personal readers as you assess each child. 2) Ask individual students to read the text as they point to the words. Observe how accurately they track and whether they self-correct when they get off track. 3) Point to a few words in context and ask, "What's this word?" If the student does not know, encourage them read up to it. 4) If the student can name any of the words in context without reading up to them, see if they can identify those words in isolation on word cards.

Figure 6. COW-T weekly lesson plan from Ms. Smith's classroom (Source: Smith_LessonPlan_2014.10.09)

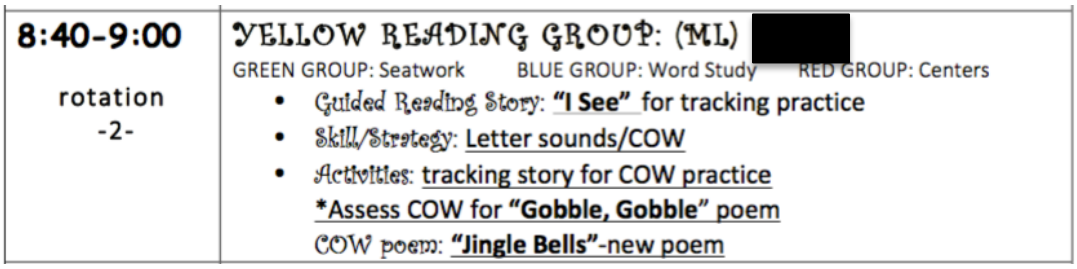
This lesson plan provided step-by-step directions for COW-T instruction, while following the whole-to-part approach, guiding students as they worked with the whole text, sentences, words, and then letters and sounds over the course of two weeks. The observation that accompanied this lesson plan form was conducted on Thursday of week one in the school that spent two days on each part of the lesson. The students in the small group began working with the whole text on Monday and Tuesday and then had moved on to sentences on Wednesday and Thursday:

> The small group was focused on the poem "Jack and Jill" as Ms. Smith asked the students to track and recite the poem aloud without teacher assistance. Ms. Smith watched each child to make sure that they were tracking as they said each word. As students finished, Ms. Smith moved to checking the mail by turning around and checking a box behind the small group table. [Ms. Smith referred to gathering the materials for the small group lesson as "checking the mail."] She turned back around and said they did have mail. Ms. Smith pulled out sentence strips that had lines from Jack and Jill written on them. She told the students they were to match the strip to the poems in their folders. As students began working, she individually watched each student track and read the sentence strips. If a student made a mistake she coached them to look at the poem and work to match up the strips to match the poem. She complimented when they were correct. After everyone had completed the task appropriately, Ms. Smith underlined random words for each student and they were to identify what the word was. For each student, Ms. Smith kept a record of words that the student had trouble with. (Source: Smith_2014.10.09)

The excerpt from Ms. Smith's small group lesson plan illustrates the implementation of sentence level work allowing students to match individual sentences to the whole text providing further evidence for the use of the whole-to-part lesson plan. In a deviation from the lesson plan, Ms. Smith also incorporated some word level work by underlining individual words for students to identify in the text. It is possible the deviation was an extension of the lesson that was appropriate for students' current level of COW-T development, but is not discernable from this excerpt. While all students were engaged in the task and Ms. Smith provided support, the instruction still appeared to lack a larger purpose, speaking to how the instruction was situated.

Similar to the lesson in Ms. Smith's classroom, Ms. Garcia provided a lesson plan that detailed day one in the sequence of instruction for her small groups. The lesson plan included practice with the whole, but also included a deviation to assess COW for the "Gobble, Gobble" poem. The deviation to assess could be due to not completing the assessment on the last day of the previous two-week window, since typically the

assessment day comes at the end of the sequence. Figure 7 shows the small group lesson plan for the time that was observed.



8:40-9:00 rotation -2-	YELLOW READING GROUP: (ML) [redacted] GREEN GROUP: Seatwork BLUE GROUP: Word Study RED GROUP: Centers • Guided Reading Story: **"I See"** for tracking practice • Skill/Strategy: Letter sounds/COW • Activities: tracking story for COW practice *Assess COW for **"Gobble, Gobble"** poem COW poem: **"Jingle Bells"**-new poem

Figure 7. Small group lesson plan from Ms. Garcia's classroom (Source: Garcia_LessonPlan_2014.11.17)

The lesson plan indicated that students were to track the "I See" story and then be assessed on the "Gobble Gobble" poem as typical of the final day of the whole-to-part lesson plan. The assessment portion of the lesson included having the student recite the poem while tracking [finger-pointing] to each word as they read. After completing the reading, the teacher asked the student to identify select words in the text of the poem and also asked the student to identify individual words from the poem written in isolation. This information was collected to gauge student learning and development of COW-T by determining their accuracy with tracking the text and identifying words in and out of context. The observation began after the group was seated with the teacher. The students had already started reciting and tracking the "I See" book:

> Ms. Garcia is working with a group of four students on reading a piece of paper folded to look like a book, "I See." Ms. Garcia moves around from student to student popcorn reading, I see… [Popcorn reading is when one student reads while the others follow along.] Ms. Garcia says, "We're going to highlight." The students start talking excitedly. The teacher says, "We're going to do it together." She watches each student take turns reading "I See" and highlighting word-by-word. … The teacher then turns to a boy, "Look!" and shows him how to highlight word by word. The students and teacher go through whole book line by line and highlight word by word. As they go through the text all students repeat

> the line one by one. [Each student is reading the line individually as they highlight.] "I see paintbrushes." "I see scissors." "I see glue." "I see tape." "I see pictures." The teacher and students finish the book like this. Ms. Garcia then passes out journal composition books, and students open journals to next clean page, which has already been stamped with the date. …. Ms. Garcia asks, "Find it? Shhh. Listen. Okay, from the book we just read. [She directs their attention to the white board that says: I see.] You can write I see in your notebooks and draw or write anything you see." As students write in their notebooks, she calls a boy up the poem to finger point read to the "Gobble Gobble" poem as she checks off words on a recording sheet. She shows him flashcards of words from the poem and checks off words he knows. Tells him "good" when he gets a word … Ms. Garcia then calls another boy to the poem. He correctly tracks the poem. Ms. Garcia then points to words on the poem for him to identify. He automatically gets Gobble, Turkey. He rereads the poem quietly to figure out the third word, Mr. The boy responds, "It's Mr." Then Ms. Garcia shows him word cards… Says F /f/ fat for another card. Ms. Garcia says, "Good job." The student then asks, "How much did I get?" Ms. Garcia responds, " You got five of them!" (Source: Garcia_2014.11.17)

The lesson demonstrated in this excerpt illustrated how students practiced tracking the text and then were individually assessed on the poem from the previous week. Ms. Garcia utilized "popcorn" reading, a method in which each student reads aloud individually while others follow along. The lesson then continued with highlighting each word as they recited the text chorally. All of these practices, on the surface, were pressed into the service of developing COW-T. However, while these practices address the component skills of COW-T, they are lacking in the nuances of situated literacy—the how and the why of what they were asked to do.

Overall, the lesson plans with corresponding observations support the notion teachers utilized the whole-to-part instructional method in both planning and implementing COW-T instruction in the small group setting. Although lesson plans were not available for analysis for all observed lessons, additional observational data revealed further instances of instruction related to the whole-to-part instructional method to

provide descriptive evidence of what instruction at each point in the whole-to-part sequence for COW-T instruction looked like in the kindergarten classroom. Although the excerpts are from different classrooms on various days, the following instances generally demonstrate what instruction looked like moving from the whole to each subsequent part across the sequence of lessons.

Whole-To-Part Instructional Sequence. The following observation, focused on instructing the whole, began as Ms. Park was working with students on the poem for the week.

> Ms. Park passes out a sheet with four pictures on it. She instructed the students to practice saying the poem chorally. [She read each line of the poem in unison with the students.] Ms. Park said, "I noticed a couple words we need more practice with." She then proceeded to repeat the process by echoing the teacher. [Echo reading is when the teacher reads one line aloud while students follow along and then they echo by repeating the line.] Ms. Park then told students to remember the last picture starts with the word And. After the group had completed the echo read, she instructed them to read it again chorally. Finally, the students practiced the last picture/last line individually. (Source: Park_2014.10.06)

The students received multiple opportunities for practicing the whole poem. The instruction was adjusted to support students when the teacher noticed difficulty with a specific portion of the poem, speaking to recognition of the developmental needs of the students. The focus of the second day in the sequence, sentence level work, is illustrated in an excerpt from Ms. Henry's classroom. The observation began after the small group reviewed the whole and the instructional focus shifted to the sentence level while working with the poem Jack and Jill:

> Ms. Henry passed out one sentence strip of "Jack and Jill" poem to each student. The students were asked to align their strips with the correct line of the poem. They each had to track the entire poem to find the matching sentence and then when they found it they had to repeat the sentence. (Source: Henry_2014.10.09)

The students were engaged with the poem at the sentence level. On the surface, the teacher was addressing an essential skill in COW-T acquisition, matching sentence strips to corresponding sentences in text. However, nuances of this instructional routine are missing, such as conversing with students about how they knew they had found the matching sentence so that they could build an understanding of how the component skill, using beginning sounds, is applied in context. This speaks to the components perspective as the instruction addressed the necessary component skills, but the instruction was not situated in a way to foster integration of the skills.

The next step in the whole-to-part instructional sequence is word level work. Ms. Williams had students identify given words in context in the following excerpt:

> Ms. Williams pulls out sticks [small popsicle like sticks used for pointing] for the group at her table and gives them a copy of the Happy Hippo poem. First, they read the poem together. After reading, Ms. Williams shows the students a word in isolation and has them track to see if they can find it in the text. They find it with their stick and then point to it… Ms. Williams then has the students take the words she showed in isolation and place them on their poem when they find them. [The words are written on small cards.] (Source: Williams_2014.09.12)

In this example, Ms. Williams includes a brief review of the whole before providing an opportunity for practicing word level work, the third part of the whole-to-part lesson format. The students were able to work, simultaneously, to locate a given word in the context of the poem and then match the word in isolation to the word in context. Matching individual words to their counterparts in text is an essential skill in developing COW-T. But as noted in the observation of Ms. Henry's class, Ms. Williams also missed important opportunities to situate the skills in the why and how of literacy development.

The next step in the sequence included letter/sound level work. Ms. Park guided students through a task that had them applying their knowledge of beginning and ending sounds:

> Ms. Park is at reading table with six students. The students are flipping through Six Fine Fish [a small decodable book] looking for a word that ends the same way as MAKES. Several students provide responses saying: ROCKS, STRIPES, HAS. Ms. Park asks, "How do you know these words ends like makes?" One students says it has /s/ and the s at the end. Ms. Park then says, "Find a word that starts like think." Students find at least three words that start like THINK. Ms. Park asks, "How do you know these words start like think?" Students call out the /th/ sound and th. (Source: Park_2015.03.23)

Here Ms. Park provided opportunities for students to think about their letter sound knowledge and apply that knowledge by looking for words that begin or end the same way as the given word. In addition, she included discussion about how the students knew they had located a word that began or ended the same as the given word, which allowed students to declare their understanding of their learning and integrate the component skills authentically.

Collectively, these excerpts provide additional descriptive evidence for the implementation of the whole-to-part instructional method and illustrate what COW-T instruction looked like in these kindergarten classrooms. However, to fully understand teachers' instructional choices and the methods they employ, we must delve further into their instructional planning. The think-alouds and interviews provided an opportunity to gain insight into teachers' knowledge of and thinking about student needs in terms of COW-T and how they translate student need to plan targeted instruction.

Teachers' Instructional Planning. Think aloud and interview data revealed much about teachers' knowledge of their students developmental literacy needs and how

they interpreted the information as they made instructional decisions related to small group instruction and specifically COW-T. The following excerpts demonstrate teachers' knowledge of student needs, speaking to the developmental perspective, and how this knowledge translated into the instruction observed in the classrooms. The excerpt from Ms. Park's think-aloud referenced the assessment data she used to determine students' current level of performance with early literacy skills, what she considered as she formed her small groups for instruction, and how she planned to proceed with instruction. The excerpt is reflective of the component skills considered by teachers in this study and is reflective of most teachers thinking about student literacy development when making instructional decisions.

> Interviewer: So how did you determine the needs of each group?
> Ms. Park: I determined the needs based on observations drawn during my weekly lessons as well as my PALS data. My word list [COW-T word identification in isolation] defined mainly how I grouped them. If they're not seeing the words in isolation, they're probably not making that letter-sound connection yet. So my low students are getting zero, one, two, three. They need a lot more help with letter sounds in order to be able to do that skill. My middle group is pretty firm in their letters and sounds, but they still need a little help to get there. And that showed in their isolation lists as well. And my high group is pretty consistent. It seems that they need more of a push to start that decoding because they've mastered spelling and the word list. They are making those connections. (Source: Park_ThinkAloud_2014.10.17)

To provide literacy instruction, the teachers created small groups using student literacy data as a guide for grouping. Ms. Park placed emphasis on the importance of the COW-T word list for determining how to group students. The emphasis suggested teachers recognize the importance of COW-T to developing word recognition abilities. Specifically looking at the excerpt with the developmental perspective in mind, several pieces were revealing about teachers understanding of the developmental stages of

literacy. As shown in the excerpt, Ms. Park referenced a high, middle and low group. The practice of identifying students by level of performance was reflective of all teachers in this study. The reference to high, middle, and low also signified that teachers recognized varying levels of literacy development among the students in their classrooms. Furthermore, teachers then mapped out a continuum of skills matching the instructional needs of each group. In the case of this specific excerpt, it would have been helpful had Ms. Park elaborated more on her instruction and the component skills she planned to focus on with each group. Specifically, how would her small group COW-T instruction differ for her low, middle and high groups? The observational data do not support such nuanced differentiation from group to group during COW-T instruction. The consultant that worked with the school also shared information that supported the "high, middle, low" framework shared by Ms. Park in the think-aloud.

> The series of professional development classes included looking at data, different reading stages, and the electronic lesson plan. I also went back at the end of the school year and worked with principals for two main reasons one of which was to look at literacy data to help create classes for the coming school year. We used the data to form classrooms that had a good spread of students in terms of a high, middle and low group. (Source: InterviewWithConsultant_2015.10.08)

In the following excerpt, Ms. Henry discussed a specific student's literacy assessment scores. She recognized his current level of performance with alphabet knowledge, phonological awareness, spelling, and COW-T. At the end of the excerpt, Ms. Henry explained the instruction received by the small group of which this student is a part. Interestingly, the teacher talked through the data demonstrating an understanding of the student's current level of literacy performance, speaking to an understanding of the

developmental perspective, but the data also revealed a potential lack of understanding regarding how to integrate component skill instruction.

> [Referencing a specific student's literacy scores…] He scored 73. He was the lowest scoring student in my class. He also just joined my class, maybe three, four weeks ago? He joined us right after we started PALS [Phonological Awareness Literacy Screening- an assessment screening tool used by the schools in this study], so he is behind. He is behind the rest of the class. I mean… he has lots of the basic skills, of rhyming, the matching the beginning sounds, letter X, some sound knowledge. He scored 11 on spelling [a task in which students spell 5 consonant-vowel-consonant words e.g. map], so he's able to apply his beginning and ending sounds, but he only scored 2 on the COW-T word list [identifying words in isolation]. He was able to track [voice-point with one-to-one correspondence a memorized poem]. He did 7 out of 8 on the word ID [identifying words in context of the memorized poem]. But he's in the bottom group because he does not have concept of word, or not firm concept of word. But it is developing…it's coming along. So, his group is still working on Level A readers and tracking the concept of word rhymes and working on that whole PALS concept of word lesson plan, the emergent lesson plan, as well as mixing in some skills of applying letter sounds and reading strategies using the pictures and applying beginning sounds (Source: Henry_ThinkAloud_2015.02.11)

Ms. Henry exhibited her understanding of literacy development as she discussed the student's demonstrated understanding of foundational skills. As Ms. Henry discussed the data she stated the student does not have a firm COW-T and identified him as a student in her "bottom group," but she did not offer explanation for the students performance. The data showed the student had beginning and ending sound knowledge (as seen in the spelling score and beginning sound matching measure that Ms. Henry mentioned) and was able to track a familiar text as well as identify words in the text when asked, but the student only scored a 2 (of 10) on the COW-T word identification task (identifying words from the familiar text in isolation). The student's performance on the word identification task could be explained by a lack of purposeful practice and integrated instruction. While Ms. Henry discussed the instruction the students received,

even mentioning “mixing in” skills such as applying beginning sounds, the instruction, as described in the previous section, shows a lack of integration of component skills, like phonological awareness skills, within more authentic contexts such as COW-T instruction. To identify the words in isolation, the student would need to apply his knowledge of beginning and ending sounds to help identify the selected words. The possible explanation of a lack of integration is further supported by an observation from Ms. Henry’s classroom. The observation revealed instruction for the two small groups was largely the same, demonstrating inconsistencies between teachers’ discussion and understanding of developmental needs and the actual implementation of instruction. If there were low, middle and high groups differentiated by their demonstrated needs on the literacy assessment, we would expect to see differentiated instruction from group to group. This was not the case, as seen below:

> Ms. Henry started out her group with showing letters on flashcards (not in order), and students yelled the letter and then made the letter sound. Ms. Henry then gave students sentence strips to "Jack and Jill"...students were asked to align their strips with the correct line of the poem and to track. Once they found it they had to repeat the sentence. [The matching of sentences was done independently, one student at a time, without discussion]. Ms. Henry then moved to randomly pulling cards with letters on them and started a game as to who could name the letter the quickest (they then got the card if they were correct)…After the game, Ms. Henry asked kids to close their eyes and pick a letter. She then asked what letter they picked, what sound did the letter make. She then directed the groups to rotate. Second group with Ms. Henry began with the same routine as the first group. The students were shown alphabet flashcards and were asked to say the letter and letter sound. They were then given the “Jack and Jill” sentence strips to match the strips to the line in the poem. The same directions were given: students were asked to align their strips with the correct line of the poem and to track. Once they found it they had to repeat the sentence. When they completed the "Jack and Jill" sentence strip activity, each kid had a book bag "A Party" and started reading the book. (Source: Henry_2014.10.09)

As the excerpt illustrated, the instruction lacked integration, as the students were not demonstrating how they knew a sentence matched, prohibiting students from recognizing that integrating the phonological awareness skill of beginning sounds could help confirm the match. The teacher also moved from task to task without discussion, limiting her influence on students understanding of how the component skills could be applied in their learning and ultimately help them on their journey to become readers in the conventional sense. Furthermore, there was a lack of transition between the letter identification and letter sound task at the beginning of the lesson; there was no explicit discussion of how students could use their letter sound knowledge as they worked with sentences from their poem this week. In short, the component skills were not integrated into the actual act of reading text during the COW-T instruction. Likewise, the instruction for the two small groups was largely the same (with the exception of the last task for each group), which has implications for the developmental perspective. Even if students were at the same developmental stage of COW-T development, different groups of students would likely have varying needs in terms of scaffolding and support of skills. The observational data here show that students in both small groups completed the exact same lesson even though, according to the think-aloud data, teachers created the small groups to reflect students' differential developmental needs.

Additional COW-T instructional elements emerged from the data that should further reflect students' developmental needs. As part of the whole-to-part instructional method, teachers also provided instruction related to specific COW-T routines they wished their students to execute. I have used the term *COW-T routines* to define specific

strategies and routines the teachers taught to help students work towards the attainment of COW-T.

COW-T Instructional Routines. All COW-T excerpts were reread and coded for COW-T instructional routines that were taught, modeled, or referenced by the teacher and also those demonstrated by students. Three main strategies emerged from the data related to COW-T instructional routines: tracking, using beginning and/or ending sounds, and reading-in or voice-pointing. Teachers used these routines to support students as they worked to apply component skill knowledge as they navigated their way through text. The routines aided students as they worked to attain a full COW-T. Teachers provided opportunities for instructing, modeling and guiding the practice of these routines for students as they learned to apply them on their own. To fully understand the routines each is defined along with observations about the frequency of their use in the following section.

Tracking is defined as the teacher instructing or modeling how to point to each printed word as it is read aloud or when the student was engaged in finger-point reading to each printed word as the text was recited. Tracking was the routine most frequently observed in the COW-T excerpts by both teacher and student. The use of *beginning and/or ending sound is* defined as the teacher instructing the student to reference the beginning and/or ending sound of a word to check for tracking or word identification accuracy. Students also utilized beginning and/or ending sounds when tracking text or identifying words in or out of context. For example, the teacher may think-aloud as she is modeling tracking for the small group and say, "I am not sure I have pointed to the correct word. Is this word *hill*? When I point to it I can check and see that it starts with an

h that says /h/ and ends with an l that says /l/." The use of beginning and ending sounds was the second most frequently demonstrated routine for teachers, but was utilized much less frequently by students. *Reading in* is defined as the teacher instructing or modeling "getting a running start" by reciting the poem or a specific line of the poem again to determine or check for accuracy of a specific word. Reading in is sometimes referred to as *voice pointing*. Students demonstrate reading in or voice pointing as they work to determine the identity of a requested word or to check for tracking accuracy. Reading in was the least observed routine in the COW-T excerpts for teachers and used with similar frequency as beginning and ending sounds for students.

Teachers' Instruction of Routines. The COW-T instructional behaviors were instructed and/or modeled by teachers in both whole and small group settings and referenced by teachers as they discussed student data in the think-alouds. Most often, COW-T instruction presented the opportunity for teachers to instruct all three routines during the same lesson. The following excerpt from a small group lesson in Ms. Kelly's room illustrated what instruction that incorporated all three routines looked like:

> Ms. Kelly models reading Jack and Jill poem while tracking. Then each student reads and tracks while other students watch. One girl reads first and Ms. Kelly prompts her to fix when she says Jill for Jack. Other than this she tracks accurately. Another girl tracks next. Ms. Kelly says as she finishes, "Good, no boo-boos!" A boy tracks next….A second boy tracks accurately. Ms. Kelly tells him to point to words for the other students to guess. He points to the word after. A girl recites poem in her head to figure it out. Ms. Kelly tells her that she should have already done that. One boy says the word and gets to pick the next word...Two students raise their hands. Another boy is trying to track. One girl says "tumbling." Ms. Kelly asks, "How did you know it so fast? What strategy did you use?" The girl responded, "I just remembered. I knew the last part of the story." Ms. Kelly then points to "water." A boy responds, "Water." Ms. Kelly asks, "How did you get that so quickly?" The boy responds, "I tracked the poem." [In this case tracking is equivalent to what I call reading in- he is reciting the poem until he reaches the requested word to figure it out.] Ms. Kelly follows up

> with, "I noticed you started on the second line." A girl comes up and points to "his." …Another student guesses her. Ms. Kelly says, "Herrr would have an r at the end." The same student then guesses him. Ms. Kelly responds, "Himmm would have an m at the end." Ms. Kelly prompts the student to track the poem. [Again referencing reading in.] Ms. Kelly says, "Keep going!" The student says "him" again. The student then goes up to board to track [reading in]. (Source: Kelly_2015.05.07)

This observation demonstrated the use of all three instructional behaviors: tracking, reading in, and the use of beginning and/or ending sounds. Ms. Kelly began the instruction with modeling tracking as she recited the poem aloud as students followed along. As students are working she often asked them how they knew something or what strategy they used to figure it out. Many students referenced the reading in behavior. At the end of the example, Ms. Kelly begins discussing the ending sound of the word to assist the student in figuring out the requested word *him*, which begins with the same sound, as *her*.

While this excerpt provides an example of a teacher's instruction addressing all three strategies, opportunities to apply these strategies appeared to have been missed by the teacher's round-robin approach to taking turns. The students may have been equally engaged and perhaps even more motivated to apply these routines had they been practicing tracking, reading in, and applying beginning and/or ending sounds on a personal copy rather than one at a time on the teacher's copy. In addition, instead of identifying words in the context of the poem one student at a time, students could have shared with a partner what they thought the word was and how they knew it as opposed to waiting for their turn. This speaks to aspects of the situated literacy perspective. In this case, the application of these instructional routines was not situated in a personal or social space. Rather, the instructional routines were teacher-directed and constrained by the

wait-time in turn taking. In this excerpt, one student applied the reading in routine, but Ms. Kelly responded that she should have "already done that," which may have caused confusion for the student. This would have been an ideal opportunity to recognize the student's application of the routine.

A second example with a small group in Ms. Smith's classroom provides additional evidence of how teachers used routines to teach the COW-T strategies and desired routines. Ms. Smith guided her small group through practicing applying tracking, reading in, and use of beginning and ending sounds. Unlike Ms. Kelly's example above, students are working simultaneously, thus increasing student engagement. Still, as seen in the excerpt below, students are lacking opportunities for social application in situated contexts.

> Ms. Smith begins by asking, "Can someone tell me the title?" One student reads the title. Ms. Smith reviews that they need to track carefully as they recite the poem. The students all track accurately. "Very good, I think I saw perfect pointing. Now I'm going to give you all different words," says Ms. Smith. She underlines different words for each student in the poem. Students track [reading in] to figure out their words. Ms. Smith asks one student what her word was and how she knew. Ms. Smith continues by asking, "Did you check it with the first letter?" The student responds. Ms. Smith says she's going to give her another one…Ms. Smith underlines another word for each student. She then asks each individual student what word they have and repeats this process another time with different words. (Source: Smith_2014.11.17)

The COW-T routines illustrated in this example include tracking, reading in, and use of beginning sound. She had the students first demonstrate their tracking abilities by reciting the poem while fingerpointing to each word as it was recited. The follow up activity of identifying words in context referenced both reading in and the use of beginning and/or ending sounds. Ms. Smith attempted to get students to respond with what strategy they used to figure out the requested word by asking how they knew the

underlined word; and on one occasion Ms. Smith asked a student if she checked to confirm the word had the same beginning sound. Ms. Smith's excerpt demonstrated multiple opportunities for students to apply the routines in their practice and articulate the routine used in discussion with the teacher. However, opportunities to situate the learning socially and for a larger purpose were still lacking. While each student responded to the teacher's questions individually, there were no opportunities to share with a peer or discuss in a more social manner as a group.

In the observational field notes, teachers often discussed tracking during instruction and directed students during small group to display tracking routines; they were less persistent with directives to use beginning and/or ending sounds or to read in. As seen in the excerpts above, the most prevalent ways teachers provided instruction related to the COW-T routines was through modeling or suggesting student use of the routines. Although all three routines were instructed by teachers and observed in the lessons, it seems the less sophisticated routine of tracking was emphasized more than the more complex routines of reading in or using beginning and /or ending sounds.

Teacher Discussion of COW-T Routines. While the excerpts above came from observational data, the think-aloud protocols also yielded data related to COW-T instruction and the three instructional routines discussed above. The teachers referenced COW-T instructional routines as they discussed student data in the think-alouds and demonstrated purposeful planning of instruction related to these routines. In the following think-aloud example, Ms. Torres discusses a specific group in her classroom and how she perceived their performance with applying the COW-T routines and her future instructional plans to assist student learning:

> My lowest group is still working with concept of word. The tracking – they're pretty solid with that. Words in context they know how to figure out the word if they don't know it automatically. They're great at going back and tracking and figuring it out that way. [What I have called reading in.] We have to work more with individual words in that group and focus more on what's the letter I see. What sound does it make? Focusing on the sound connection instead of tracking all the time to get to it. For some of them that's a handicap…And just drawing more attention to the letters and sounds and drawing from that information versus always going back and tracking [reading in]. So I plan to do more word building activities with them using words from the poem to draw their attention to sounds, particularly beginning sounds, but ending sounds, too. Just looking for similarities and differences among them. If you have words with the same beginning sound how are you going to tell what it is. We have to look past the first letter at these other sounds within the word as well. (Source: Torres_ThinkAloud_2014.10.17)

In this think-aloud, Ms. Torres referenced all three COW instructional routines: tracking, reading in, and use of beginning and ending sounds. Specifically she discussed how well the students track the text and then moved on to reflect on the fact that reading in appeared to be the students' primary tool for figuring out a requested word from the text. In fact, she called this a "handicap" and went on to state that she planned to do more with beginning and ending sounds to help students develop this third routine as a tool for determining an unknown word. Additionally, Ms. Torres referenced the students as members of her "lowest" group indicating recognition of various levels of student performance, speaking to the developmental perspective.

Among all the think-aloud protocols, a common theme among the teachers in discussing student performance relative to COW-T was how they thought students were doing with utilizing the three COW-T routines to figure out words, both in and out of context. Ms. Kelly mentioned the use of beginning and ending sounds, as she questioned how students are doing with the skill, and as she responded to a follow-up question regarding monitoring student progress. Beyond just the simple use of beginning and

ending sounds, it appeared that Ms. Kelly recognized a hierarchy to the COW-T instructional routines and considered students ability to use beginning and/or ending sounds a critical skill for students to be able to accurately identify words out of context. "Are they beginning to use the beginning sound and ending sound knowledge to take words out of the context of the poem? Even though we've taught it to them explicitly, how are they doing with that skill?" (Source: Kelly_ThinkAloud_2014.10.13). Ms. Kelly seemed to imply that using beginning and ending sounds was a higher-level routine associated with beginning to recognize words out of context. This also implies a developmental progression as students learn to integrate and apply component skills in response to targeted instruction. Along this line, Ms. Park also mentioned in her think-aloud how a particular student applied the strategy of using beginning sounds to help identify words in the poem. Ms. Park first discussed how the student had difficulty tracking, but was able to identify a word in context based on beginning sound, again implying that using beginning sounds was a higher level strategy than reading in.

> [Referencing a specific students scores on COW assessment]…With word identification, she got six out of eight. So even though she tracks incorrectly, she's able to point to a word and she knows if I'm – if I'm asking her to find a word, not necessarily PALS [an early literacy screening tool that the school uses], but when we do our activities during the week. If I say, "find the word LITTLE," even if she tracks the poem incorrectly, she's able to know that if she's touching a word with a different beginning sound that's not it. She can find that word and use the letter sounds to find it. So she's doing really well with that. (Source: Park_ThinkAloud_2014.10.17)

This excerpt from Ms. Park's think-aloud speaks to the situated literacy and components perspectives. It is likely the case that the student Ms. Park referenced had not mastered the ability to track text with one-to-one correspondence due to not reconciling two-syllable words in context, but had nonetheless learned the phonological awareness

skill of utilizing beginning sounds. The student could then apply the phonological awareness skill in isolated instances speaking to the instruction of the component skills, but still got off track when tracking text. This speaks to the lack of practice in applying and integrating component skills and/or the instruction not being purposefully situated.

Towards the end of the school year, Ms. Smith responded to a follow-up question during a think-aloud procedure about what she would do differently in terms of her instruction. Once again, she referenced student performance with COW-T behaviors, specifically, how the higher-level routine of using beginning and ending sounds is not solidifying for students to apply.

> In retrospect, now what I'm seeing is they're not using what they know with sounds in the words in isolation. When doing a quick check, I just did one: sky, star, world. I think they forgot the strategies you can use to figure out a word in isolation. Coming from a poem they should know by heart, I had to stop what we were doing and just practice. You said sky for star. Look at that word. Which one makes sense? Look at the whole word. Which one makes sense? (Smith_ThinkAloud_2015.05.14)

Similarly, Ms. Smith referenced how students were demonstrating difficulty with applying beginning and/or ending sound knowledge to identify words in isolation. This suggests that Ms. Smith also recognized a hierarchy within the COW-T instructional routines and valued most highly the ability to apply letter sound knowledge to identify words in isolation. Ms. Smith furthered the discussion by sharing how the student said *sky* for *star*. By her own admission, her students are "not using what they know," which could speak to how the component skills are being taught and/or a lack of opportunity for students to purposefully integrate their learning for authentic purposes. The teachers application of the COW-T instructional routines was also discussed by the consultant that

worked with both schools. In response to a question regarding her general impression about literacy instruction and specifically COW-T instruction she said:

> An overwhelming thing was teachers weren't following up with their questions with how do you know? They didn't see it as an opportunity to teach strategy [what I have termed routine.] They would look at the poem and ask what word is this? The children would make a guess and the teacher would either say yes or no and there was no follow up asking the student 'How did you know?' The teachers would accept general answers and didn't articulate the strategy like reading in to the word and checking with beginning sound. The children weren't internalizing strategy at all- that was the biggest thing- lack of strategy. (Source: InterviewWithConsultant_2015.10.08)

The consultant's statement provided further evidence that the COW-T instructional routines were taught, but not articulated in a way that would foster students' consistent application of the strategy.

The information shared by all four of the teachers' think-alouds suggested that they seemed most concerned with their students' application of COW-T routines, and specifically letter sound knowledge, in determining a requested word, both in context and in isolation, with the ultimate goal being recognizing words in isolation. Although the teachers talked about utilizing beginning and/or ending sounds in their think-alouds and interview questions, taking a closer look at student application of COW-T routines in the observational data revealed a heavy emphasis on practicing tracking a memorized text. The lack of student application of the routine could be explained by the information shared by the consultant as she indicated that teachers "didn't articulate the strategy," which prevented students from internalizing the strategy.

Student Application of Routines. To fully delineate how the COW-T routines were instructed in the kindergarten classrooms in this study, student application of the COW-T routines must be considered and explained. The students' application of the

COW-T routines in small group instruction is revealing about teachers instruction of the routines. Additionally, the students' application of routines also relates most often to the developmental and situated literacy perspectives guiding this study and will be discussed in further detail in relation to the data excerpts shared.

As discussed in the previous section, teacher instruction was almost equivalent for teaching tracking and instructing students to utilize beginning and ending sounds. But the students applied the tracking strategy far more frequently during the literacy block than either beginning and/or ending sounds or reading in strategies. In practicing tracking in small group instruction, students most frequently finger pointed to a poem or other memorized text. The tracking practice is best illustrated in the example from Ms. Clark's classroom as students are guided through tracking an entire poem. In terms of student application of the tracking routine, they were provided a reminder from the teacher about "how many times we point," but are then provided the opportunity to independently and simultaneously practice while the teacher observed.

> Ms. Clark tells the students the name of the poem. She then passes out Peter, Peter poem on colored paper. Ms. Clark says, "First things first, let's look at the first line. Count how many words." The students show four on their fingers. "How many times are we going to point?" asks Ms. Clark. "Pumpkin is a two-syllable word. Remember we've talked about the spaces. This means we're picking up our finger and moving it along," says Ms. Clark. Students try the first two lines on their own as the teacher watches them. Four out of five students track correctly; the fifth does with teacher support. "You guys did a great job with the first two lines, let's see if we can do the third line," says Ms. Clark. The teacher models and then group does it together two times. Then the students read all three lines on their own. (Source: Clark_2014.10.06)

As seen in this example, the students were not passively observing while one person tracked the text; instead, all students in Ms. Clark's class were actively engaged in reciting the poem and tracking the text as each word was read aloud. Related to the

situated literacy perspective, the opportunity to apply the tracking routine in the context of a poem authentically situated the learning providing the students with a real purpose for applying the skill. Additionally, the level of support provided as Ms. Clark reminded students about how many times they point and how students are to pick up their finger and move it along could be indicative of instructional supports targeted to students' identified needs. In comparison to the excerpt from Ms. Clarks' classroom that purposefully situated learning, more often students were tracking a given text individually while the others in the small group watched. The following excerpt from Ms. Kelly's classroom demonstrates the tracking routine often observed as students lack the opportunity for purposefully situated learning:

> A group of six students are working with Ms. Kelly at the small group table with the Jack and Jill poem. The group started by reciting the poem aloud with no prompts. Then the students pull out the sentence strips with the poem and start working on tracking the poem individually. Ms. Kelly says, "We've worked really hard on memorizing the poem…now we're going to work on our tracking. My goal is by Friday that you can tell me what a word is if I show you a word. I would like for you to get 7 of the 10 words. The first thing we need to do is track and read…we're looking at the beginning and ending sounds." Ms Kelly then uses the pointer to read the poem. Then individually the students come up to the poem to track and read the poem aloud. A girl gets to track the poem and read it aloud at the stand. Ms. Kelly says, "It's the proudest day of her life" and high fives the girl because she read the poem and tracked perfectly. A boy was next and was successful. Another girl comes up to track and gets stuck on "to"; Ms. Kelly directs her to start again…stumbles on "to" again but ultimately gets it. Ms. Kelly compliments her. Another girl starts the poem gets to the third line and has to start over but ultimately completes the poem. Finally, another boy successfully completes the poem. (Source: Kelly_2015.05.06)

Unlike the excerpt from Ms. Clark's classroom, the students in Ms. Kelly's classroom were subjected to wait time as each student stands to recite and track the larger copy of the poem at the teachers stand. While students frequently applied the tracking routine, the manner in which tracking occurred varied. Instances, like those seen in the example from

Ms. Clark's classroom provided purposefully situated tracking practice, while the example from Ms. Kelly's classroom was not situated as purposefully. The purposefully situated tracking practice seen in Ms. Clark's classroom allowed students to build a clearer understanding of the what and why of the situated literacy perspective.

While students individually tracked often for practice in the small group, they also tracked the poem individually for informal assessment purposes. This application of individual tracking is necessary during the informal assessment process as it provided teachers with data about student progress with development of COW-T. This example from Ms. Garcia's classroom illustrates student application of individual tracking and also application of other COW-T routines, but lacked connection to the situated literacy perspective.

> Each student comes up and tracks the poem for the teacher.
> Gobble, gobble,
> Who is that
> Mr. Turkey
> Big and fat
> A boy comes up first. He tracks the poem. Ms. Garcia points to select words in the poem. When the student makes mistake, Ms. Garcia tells him to "track it and see." [Reading in] He tracks and figures the word out. "Good," says Ms. Garcia. He uses this strategy for the rest of the words. Teacher affirms him, "Good" after each word. Ms. Garcia shows him words from the poem in isolation on cards, and tells him not to look at the poem. He begins trying to recite the poem in his head to figure out the word [reading in]. (Source: Garcia_2014.11.17)

In the excerpt from Ms. Garcia's classroom an individual student applied the tracking behavior, but did not independently apply the reading in routine to determine a requested word. As seen in the previous example in Ms. Kelly's classroom, the student was not provided an opportunity to purposefully connect the informal assessment of COW-T to his developing understanding of becoming a literate individual due to the isolated, skill-

driven manner in which the assessment occurred. Additional discussion around the task and the student's performance could have helped situate this learning experience for the student and help build his understanding of the what, why, and how of the situated literacy perspective.

As mentioned previously, students applied the tracking routine far more frequently than reading in or use of beginning and/or ending sounds. The frequency of students tracking text in comparison to other routines could be explained by tracking being explicitly included in the whole-to-part lesson plan approach that teachers utilized. The whole-to-part lesson included a review of the whole poem or text each day as part of the lesson, which also included either the teacher modeling tracking or the students practicing tracking the text on their own, or often both. While utilizing beginning and ending sounds and reading in were observed far less frequently, instances of students applying these skills revealed interesting information about the instructional interaction around these routines such as missed opportunities to capitalize on student application of or reference to the routines.

As students began an activity of rebuilding the sentences of the poem they were working with, Ms. Kelly's small group had a discussion that referenced how students could use the COW-T routines. As you will see, Ms. Kelly asked students "How they could remember the words you have?" and one student responds with reference to the use of beginning and ending sound routine, but an opportunity to capitalize on the students insight is overlooked:

> The small group reads the first line of the COW poem, Jack and Jill. Ms. Kelly says they are going to build the sentence and gives them each a word. "How can you remember the words you have?" asks Ms. Kelly. The students respond by

> saying you can say the poem. One girl says, "You can look at the beginning and ending sound when you are saying the poem." [The group continues with only one reference to beginning sounds.] (Source: Kelly_2015.05.08)

The interaction in the small group demonstrated that the students were thinking about how they could apply the COW-T routine of using beginning and ending sounds while rebuilding the lines of the poem, but it appears the application of those skills is absent from the instruction. The fact that the group continued with only one reference to beginning sounds implied that an opportunity to connect the student reference to the integration and actual application of the component skill of beginning and/or ending sounds during the instruction was missed. Therefore, it appeared the student's answer was not adequately reinforced and the opportunity for integrating the skill in the instruction was ignored.

Although the observational notes from Ms. Kelly's class indicated she often neglected to scaffold students' use of beginning and/or ending sounds, in other classrooms this was not the case. For example, in Ms. Park's classroom the students were guided to think about beginning sounds and applied reading in as they worked to identify words in context:

> As they were reading the poem a second time Ms. Park asked the students to find certain words. "The first word is little." The students find the word. Ms. Park asks, "How did you know this word was little?" She then says, "My next word is fat. What does fat start with?" Students respond. "Let's read and see if we can find a word that starts with f," says Ms. Park. They read and stop when they get to fat. (Source: Park_2014.09.12)

In contrast to Ms. Kelly, Ms. Park used the opportunity to scaffold students' use of the beginning and/or ending sound routine, which allowed students to see how to appropriately integrate the skill. This speaks to the components, developmental, and

situated literacy perspectives. Ms. Park guided students through applying the component skills of beginning sounds as well as the COW-T routine of reading in, appeared to scaffold the learning to the developmental needs of the students in the small group, and situated the learning to allow students the opportunity to explain how they knew they had found the requested word.

Interestingly, the teachers provided instruction or suggested use of tracking and beginning and ending sounds most often, but students' application of the routines was heavily concentrated in tracking the text to the exclusion of applying beginning and ending sounds. The students did not apply beginning and/or ending sounds or reading in as frequently. In the few instances the students did apply reading in or used beginning and/or ending sounds, they were prompted by the teacher who asked what they could do to help figure out the word; therefore, students were not often independently applying the routines. Other opportunities, like those seen in the example from Ms. Kelly's classroom, were teacher guided with little discussion to follow up to help the students understand why they were using the suggested routine. One possible explanation for students' limited application of beginning and/or ending sounds and reading in could be that teachers were not fully cognizant of the best ways to situate the learning that would ultimately foster the development of the how and why aspects of the situated literacy perspective. The observational data supports this possible explanation in that students were completing activities or tasks that were isolated chores devoid of larger meaning or purposes; the instruction was largely isolated with minimal opportunity for authentic, social application. Contrarily, as discussed throughout the chapter, the data supported the notion that teachers were aware of their students' developmental needs and ways to

purposefully situate and integrate learning for all students. The observational data and the think-alouds present contrasting evidence. It appeared that teachers in this study were able to discuss their knowledge of students' literacy development and the most effective ways to teach students in the think-alouds, but the actual application of that knowledge was largely missing or inconsistent in the observational data.

Observational field notes, transcripts of interviews and think-alouds, and content analyses of lesson plans suggested that teachers did provide targeted instruction focusing on COW-T and that they did utilize a whole-to-part approach. Furthermore, it appeared that teachers taught specific instructional routines in hopes of leading their students to a COW-T. In this regard, the data suggest that teachers did teach the component skills necessary for students to achieve a COW-T. However, an analysis of the data from a developmental perspective and a situated literacy perspective leads to the conclusion that the component skills were neither taught nor applied in an integrated manner, and may not be consistently matched to students' developmental level.

Conclusions

In conclusion, teachers in this study had the foundation or a framework in place for providing small group instruction that worked to help students develop COW-T and reflected varying degrees of inclusion of the three literacy perspectives. In terms of COW-T instruction, teachers adopted and implemented a whole-to-part instructional approach while also including instruction of COW-T instructional routines to help students develop this critical early literacy skill; however, the instruction was not differentiated to reflect the nuances necessary to address students' developmental level of COW-T. Additionally, the teachers incorporated some aspects of the three literacy

perspectives. Teachers addressed the critical early literacy components identified by the components perspective in their small group instruction; however, the instruction was not consistently differentiated to students' developmental needs, speaking to the developmental perspective. Teachers demonstrated an awareness of the developmental perspective, as seen through their think-alouds, but the application of this knowledge, as seen in the observations, was contradictory. Finally, the early literacy instruction was situated in a manner that often prevented students from developing an understanding of why they were engaged in a task or learning experience and how the instruction would benefit their development as readers. The component skill instruction was largely isolated from its larger purpose and lacked social validation.

Chapter V: Discussion and Implications

In this chapter, I provide a brief summary and discussion of the major finding of this multi-site descriptive case study. Next, I address implications for the schools involved in the study as well as general implications. Finally, I discuss the limitations of the study and share closing remarks.

Brief Summary

Concept of word in text, a critical early literacy skill, has been acknowledged as a pivotal event in students' attainment of word recognition abilities and the transition from emergent to beginning reader (Henderson, 1981; Flanigan, 2007). While research has identified the developmental importance of the attainment of COW-T under experimental conditions (Flanigan, 2007; Mesmer & Williams, 2015; Morris, 1993; Morris et al., 2003), little is known about teachers' instructional practices relative to COW-T. This descriptive multi-site case study sought to qualitatively examine kindergarten teachers' early literacy instruction and instructional methods, specifically related to COW-T and in light of three early literacy perspectives, the components perspective, the developmental perspective, and the situated literacy perspective.

To address the gap in descriptive COW-T research, the present study employed secondary analysis of archived data including observations, think-aloud interviews, and content analysis of lesson plans from a larger project focused on kindergarten teachers' use of literacy data. From the larger project, participants, purposefully selected as those

directly observed by the researcher, included nine kindergarten teachers in two rural public schools. The following research question guided the study:

> What concept-of-word-in-text instructional methods, relative to Morris' (1993) conceptual framework, do kindergarten teachers at Westbrook and Southbridge Elementary Schools implement in their small group instruction?

Results of the analysis indicated that teachers utilized current COW-T instructional methods and also instructed COW-T routines. Analyzing COW-T instruction and instructional methods in light of the three literacy perspectives, the finding indicated that teachers provided instruction in the critical early literacy components; however, the instruction was not fully differentiated to address students' developmental needs and lacked opportunity for authentic, integrated experiences that serve a larger purpose. In the next sections I relate the finding relative to COW-T instructional methods, the components perspective, the developmental perspective, and the situated literacy perspective to the relevant literature.

Discussion of Findings

Concept-of-Word-in-Text Instruction

The instruction of COW-T is not a new phenomenon; rather, instructional approaches that address COW-T skills and routines can be traced back over 60 years. Earlier approaches, especially the language experience approach, have informed current instructional practices; these approaches have long been used for helping students attain skills necessary for developing a firm COW-T. The earlier instructional approaches included working with an easily memorized text, often a personal dictated story based on an experience, while also including work with words in and out of context, phonological

skills, alphabet knowledge, concepts about print, and the reading in routine (Nessel & Jones, 1980; Stauffer 1970). Findings derived from observations of small group lessons and analyses of lesson plans indicated teachers used the instructional techniques recommended by Nessel and Jones (1980) and Stauffer (1970) several decades ago. The finding that teachers implemented instructional practices that fit with established COW-T approaches is encouraging as it indicates that teachers actively plan instruction to address the critical early literacy skill. Even more specifically, teachers in the current study appeared to utilize a specific approach, the whole-to-part approach, as detailed in a current instructional resource, *Words Their Way for PreK/K* (Johnston et al., 2015) and adopted by the statewide Electronic Lesson Plans (ELP's) found at https://www.pals.virginia.edu.

An interview with a consultant that had worked with both schools in the years leading up to the larger project provided additional information that further explained teachers' use of the whole-to-part instructional method. The consultant shared that she was contracted to provide professional development services for teachers in both schools as well as consulting services for administrators (Interview with Consultant, October 2015). The professional development provided to teachers included training teachers to use the statewide ELP's that are modeled after the whole-to-part approach detailed by Johnston et al. (2015). As a result, both schools implemented the ELP format in their kindergarten classrooms. Therefore, teachers received training on planning and implementing instruction that followed the whole-to-part format for COW-T instruction, and this fact at least partially explains teachers' adoption of this approach.

Additional Instructional Methods. In the present study, COW-T instructional routines also emerged from the data and were utilized to varying extent by teachers. Past and current instructional resources supported the instructional routines that emerged including tracking (Johnston et al., 2015; Johnston et al., 2009; Morris, 2005; Nessel & Jones, 1980; Stauffer, 1970) reading in (Nessel & Jones, 1980) or voice pointing (Johnston et al., 2015) and use of beginning and/or ending sounds (Johnston et al., 2015; Johnston et al., 2009; Morris, 2005; Nessel & Jones, 1980). While the study data suggested utilization of these COW-T instructional routines, teachers placed a heavier emphasis on student application of tracking in text as opposed to reading in and/or use of beginning and/or ending sounds. One explanation could be teachers' emphasis on tracking during the small group lesson since the whole-to-part approach specifically indicated modeling and student application of tracking. An alternative explanation could be that reading in and use of beginning an/or ending sounds are skills that require the application of other component skills, thereby requiring a more complex ability to integrate skills. Although the teachers' use of COW-T instructional routines converge with recommended practices for developing students' COW-T (Johnston et al., 2015; Johnston et al., 2009; Morris, 2005; Nessel & Jones, 1980; Stauffer, 1970), the instruction did not include the nuances that are necessary for students at various places along the developmental continuum of COW-T as suggested by Johnston et al. (2015).

COW-T Instructional Nuances. *Words Their Way for PreK/K* specifically details COW-T instruction, explaining that COW-T develops along a continuum and that differential instructional prompts and scaffolds are necessary to target specific students' learning needs (Johnston et al., 2015). Johnston et al. (2015) suggests differentiated

instruction for students demonstrating a developing COW-T versus a rudimentary COW-T. The resource describes different prompts and scaffolds for working with the parts of a short, memorable text including: sentence, word, and letter/sounds. In working with sentences, suggested instructional activities for students with developing COW-T include rebuilding sentences with the support of a model; for example, matching sentence strips to chart paper, or with teacher supports, such as teacher modeling and explaining how to match the sentence strips. In contrast, students with rudimentary COW-T work at the sentence level without such close teacher supports. For instance, students could independently rebuild a sentence, or reconstruct the entire poem by arranging the sentences in correct order. Similarly, in working with words, students with a developing COW-T might match individual word cards to a text copy with the teacher's support, whereas students with a rudimentary COW-T might find and identify words on their own that are harvested into a word bank of sight words and used for phonics analysis. According to Johnston et al. (2015), the differential instructional nuances appeared in the level of support provided by the teacher (modeling versus guiding versus independent) and in the sophistication of the task (matching versus finding versus identifying). The results from the present study indicate that teachers did not consistently differentiate COW-T instruction to fully meet the literacy needs for each small group. Observational data of the teachers' instruction lacked sufficient evidence of adequate differentiation according to the students' COW-T development; teachers implemented the whole-to-part approach in the same way for each group. It should be noted that during a few observations teachers implemented minor deviations from the prescribed sequence that appeared to be related to students' differential development of COW-T. For example, Ms.

Smith asked the students to identify underlined words in context during a sentence level lesson. It could be that Ms. Smith provided this extension because students were developmentally ready for identify words in context.

Overall, observational data support the conclusion that teachers used the whole-to-part instructional sequence, but they did not show consistent use of differentiated supports and scaffold as suggested by Johnston et al. (2015) and the statewide ELP. Additional data from the think-alouds and interviews also corroborate this finding. Teachers discussed forming "high, middle, and low" groups that appear to reflect their student's developmental stage of literacy, but the instruction provided to each of those groups was not differentiated accordingly. Observational evidence indicated, at the small group level, that teachers provided identical instruction for multiple small group lessons on the same day. These findings suggested that although teachers appear to be aware of the need for instructional differentiation, as evidenced from their think-alouds and interview transcripts, observational data suggest they do not fully differentiate the small group instruction through the various forms of scaffolding and supports that could meet students' developmental needs. Whether this is because of a lack of understanding of how COW-T development unfolds or a lack of knowledge of various instructional routines and scaffolds that might be deployed in different situations is unknown at this time.

As important as addressing literacy development within a whole-to-part framework is, research suggests that it is equally important to provide students opportunities to practice the integration of all the critical early literacy skills in the closest simulation to real reading—COW-T fingerpoint reading (Morris et al., 2003). Instruction of COW-T that is matched to students' current level of development allows emergent

readers to consolidate the component skills for the authentic purpose of reading and writing text. To figure out what a text says, even a memorized text, students must look for initial letters (alphabet knowledge), listen for beginning sounds (phonological awareness), and synchronize their finger pointing to the appropriate words in running text accordingly. COW-T instruction involves mapping oral language to print on multiple levels; therefore, for students to obtain a firm COW-T, instruction in the critical component skills is best taught in a developmental fashion, and authentically situated in ecologically valid literacy contexts. In the next section, I discuss the finding of this study in light of the three interrelated early literacy perspectives that provided its theoretical framework.

Evidence of Early Literacy Perspectives in Emergent Literacy Instruction

The three interrelated early literacy perspectives influence students' developing understanding of the purposes of instruction, the purposes for reading, and their developing identities as readers. The components perspective posits that there are critical early literacy skills necessary for later success in reading. Researchers have identified five critical components for early literacy instruction: alphabet knowledge, phonological awareness, concepts about print, early writing, and oral language; and studied their influence on later reading achievement (Storch & Whitehurst, 2002; Whitehurst & Lonigan, 1998; NELP, 2008). Adding to the components perspective, the developmental perspective focuses on the nuances of the component skills as they progress from broad to more refined abilities. Combining the two perspectives, Morris (1993) suggested a developmental sequence that addressed the component skills necessary for learning to read that students attain, in response to instruction, as they work towards the critical goal

of developing a firm COW-T necessary for word recognition. Overarching both the components and developmental perspectives is the situated literacy perspective. The situated literacy perspective addresses the *what, why,* and *how* of the literacy instruction necessary for providing purposeful, authentic learning experiences. The present study illustrates the extent to which teachers addressed each perspective in the kindergarten classroom instruction and ultimately how the perspectives related to the students' attainment of COW-T. The extent the COW-T instruction reflected the literacy perspectives is discussed next.

Component Skill Instruction. The present study finding indicated, on the surface, that teachers in this study addressed all five of the critical components in their small group literacy instruction. Teachers provided instruction during small group related to phonological awareness, alphabet knowledge, concepts about print, and early writing that converge with the research on the necessary components of effective early literacy instruction (NELP, 2008; Storch & Whitehurst, 2002; Whitehurst & Lonigan, 1998). Also, the component instruction appeared to reflect the skills identified in the developmental model suggested by Morris' (1993). The study finding related to teachers' instruction of the component skills is encouraging as the research supports the importance of their instruction; however, further examination of the instruction of the component skills revealed information about the degree to which such component skill instruction was integrated and situated within genuine literacy purposes.

Close examination of the component skill instruction provided during teachers' small group instruction indicated that teachers often provided isolated instruction related to the component skills. The instruction of the component skills was not integrated into

purposeful reading and writing tasks. For example, lessons often began with an alphabet knowledge activity before transitioning to working with the poem/text for COW-T instruction. Frequently the alphabet activity was completed and students abruptly transitioned to the poem without discussion to help purposefully situate the learning with the instruction largely taught in a teacher-directed, skill-driven manner. Few connections were made between the alphabet activity and any alphabet letters in the text. Additionally, the abrupt transition left students without guidance as to how the knowledge practiced during the alphabet activity could be applied in the lesson or during other experiences as they learned to read. This lack of application and integration of the component skills in teacher's instruction is contradictory to the findings of Xue and Meisel's (2004) study that found increased student outcomes with an integrated approach as compared to a strictly component-based approach. Pressley et al. (2001) also found that the most effective teachers integrated and applied component skills within authentic reading and writing opportunities.

Purposefully Situated Instruction. Xue and Miesel (2004) and Pressley et al. (2001) also found that authentic reading and writing experiences produced greater student outcomes than instructing the component skills in isolation. The *authentic experience* is one that allows students to apply learned skills in reading and writing for real purposes, whereas, the *inauthentic experience* would be contrived and lacking opportunity for students to apply learned skills in meaningful ways. The authentic experiences provided opportunity for application of skills in reading and writing; therefore, purposefully situating the instruction for students by allowing students to see how learned skills are used in genuine reading and writing experiences.

Contrary to the research of Xue and Miesel (2004) and Pressley et al. (2001), the finding of the current study indicates instruction was not purposefully situated; students did not have the opportunity to build an understanding of the larger purpose of the isolated, skill-based instruction. For example, it appeared the small group instruction was situated in a procedural surface manner such that students completed a task, but did not discuss why they were doing the task or how it would help them read or write. The omission of these importance discussions could limit opportunities for students' development of their identities as readers (Gee, 2012). Observational data revealed that teachers conducted the small group lesson to progress in a perfunctory task-by-task manner (alphabet knowledge activity to COW-T lesson to phonics) with limited discussion between tasks to help students understand the purposes behind the skills being learned, understand the larger intention of the lesson, or situate the utility of the skills within an authentic literacy purpose. One possible explanation for the skill-driven, teacher-directed instruction could be that teachers lack a firm understanding themselves of *why* it is important to purposefully situate their instruction and therefore, may not be maximizing opportunities for integrated instruction. Part of how teachers situate their students' learning comes from their understanding of the developmental needs of students. The developmental perspective, relative to the overall findings of this study, is discussed next.

Developmentally Targeted Instruction. Think-aloud and interview transcriptions indicated that teachers were aware of the student's stage of literacy development. Teachers discussed forming "high, middle, and low" groups for the purposes of providing differentiated literacy instruction. However, the observational data

conflicted with the think-aloud and interview data in that teachers did not appear to differentiate their instruction to address the identified developmental needs in terms of their overall literacy development and specific to COW-T development.

The finding of this study in terms of the instruction students received as relevant to the developmental perspective is contradictory to the developmental theories of how students learn to read words. As a result of previous research, Ehri (2005) and Henderson (1981) described stages of word learning and developmental word knowledge and detailed the nuances of development that students exhibit in each literacy stage. They both argued that early literacy instruction should reflect the needs of the students according to their respective developmental stage. For example, in terms of phonics related skills students, development of awareness and utility of beginning sounds would precede consonant digraphs. Such nuances should appear in the daily classroom instruction; nevertheless, the observational data revealed multiple instances of similar, if not identical, instruction from one small group to the next. Current study findings indicated that although teachers were able to discuss student developmental needs in the think-alouds, their instruction did not accurately reflect students identified needs or their self-professed knowledge of their literacy development. The disconnect between teachers' knowledge of the developmental stages of literacy and their lack of differentiated small group instruction may be explained by limited understanding of how to best translate student identified needs into targeted differentiated instruction.

Summary

Teachers in this study actively planned for and implemented instruction that addressed COW-T by using a whole-to-part approach, incorporating instruction of COW-T routines, and addressing the essential early literacy components. Based on the data from this study, teachers demonstrated knowledge of their students, specifically their literacy needs, and knowledge of the development and necessary components of the reading process. But teachers' small group instructional practices do not reflect this knowledge. Instruction was not purposefully situated in or integrated within authentic literacy experiences. The finding of this study suggest that teachers may benefit from additional support relative to differentiated and purposefully situated instruction that enhances their current instructional practices.

Implications of Findings for School

Westbrook and Southbridge Elementary Schools have already in place many structures that work together as a "framework", so to speak, for planning and implementing effective early literacy instruction, specifically related to small group instruction and COW-T. The nine teachers in this study incorporated literacy rotations as part of their literacy block, which included small group instruction provided by the classroom teacher. The small groups were designed to provide differentiated instruction based on students' developmental stage of literacy. It is important to recognize that having this structure in place for small group instruction is essential for differentiated literacy instruction.

In addition to the structural elements, to address students' developmental needs in small instructional groups teachers must be able to accurately interpret student literacy

data to provide appropriate instruction. The teachers in this study discussed in their think-aloud/interviews specific student, group, and classroom-level literacy data and were able to accurately interpret the literacy data relative to instructional group formation. In addition they were also able to discuss how they would use the data to inform instructional decisions. However, there appeared to be a discrepancy between teachers' discussion about their students' literacy data and corresponding literacy needs and their actual instruction observed in the classrooms. It appeared that teachers did not utilize their knowledge of students' developmental needs when implementing small group literacy instruction. While the teachers appeared to 'talk the talk,' they did not 'walk the walk.' The reasons for this are unknown at this time. Issues related to the application of teachers' knowledge of the developmental perspective and differentiated small group instruction is addressed in the action plan below.

In terms of the small group literacy instruction, specifically related to COW-T, both schools appeared to have adopted a similar instructional method for instructing COW-T. Observational data and content analyses of corresponding lesson plans indicated they utilized a whole-to-part approach, similar to the one described by Johnston et al. (2015) in *Words Their Way for PreK/K* and outlined in the statewide ELP for emergent readers. The framework already in place in both schools lent itself well to implementing the whole-to-part approach as it is designed for small groups of students that are grouped together by current developmental levels of COW-T (Johnston et al., 2015). While the basic tenants of the instructional approach were utilized, the nuances of instruction relative to students' current developmental levels of literacy necessary for supporting and scaffolding students learning were not evident in the data. To address the shortcomings in

terms of the nuances of differentiated instruction, the following action plan is recommended.

Action Plan: Recommendations

While Westbrook and Southbridge Elementary Schools have a framework in place for providing differentiated literacy instruction in their kindergarten classrooms, additional actions are recommended for improving their early literacy instruction. The recommendations are summarized in Table 4 and will be discussed in detail below.

Table 4

Recommendations for Literacy Instruction at Southbridge and Westbrook Elementary Schools

Recommendation 1: Small group instruction should be further differentiated to reflect student's developmental needs in the component skills.
Recommendation 2: Teachers should continue to utilize the whole-to-part instructional approach for COW-T, but instruction should be further differentiated to address student developmental level of COW-T.
Recommendation 3: Instruction should be situated to help students understand *why* they are doing a specific task and *how* that task will help them become conventional readers as well as position students as agents of their own learning.

The recommendations in Table 4 address ways to increase the application of teachers understanding of the developmental perspective relative to literacy instruction in general as well as COW-T instruction. Additionally, instruction in the kindergarten classrooms in this study was mostly situated as isolated, teacher-directed tasks devoid of

larger purpose. For example, the small group lesson often began with alphabet knowledge activities in which students practiced identifying either letters or letter sounds. Often this task was purely rote memorization without discussion or connection to *why* students were completing the activity. Instead, instruction should be situated to influence students' understanding of the purposes of instruction and developing identities as readers. Therefore, the following recommendations are suggested as critical next steps for both schools towards improving their small group literacy instruction, relative to the emergent literacy stage, specifically related to COW-T, and in light of the developmental and situated literacy perspectives.

Recommendation 1. As part of their literacy block the teachers in this study incorporated literacy rotations which included small group instruction provided by the classroom teacher. It appeared that the small groups were designed with the intent to address students' developmental stages of literacy, but this was not always the case. To fully utilize the small group instructional time for maximum impact on student learning, teachers should further and consistently differentiate their instruction to address student developmental needs. As such, the instruction for each group should reflect the developmental stage of that small group by addressing the nuances of the literacy stage and supports for students at that stage. Table 5 provides detailed suggestions for enhancing current instructional practices related to differentiating the component skills of the emergent literacy lesson.

Table 5

Recommendation One: Instructional Suggestions to Enhance Practices

<table>
<tr><th>Recommendation 1</th><th colspan="2">Existing Practices to Continue</th></tr>
<tr><td rowspan="6">Small group instruction should be further differentiated to reflect student's developmental needs in component skills.</td><td colspan="2">• Literacy rotations that incorporate small group teacher-led instruction
• Collect and utilize literacy data for instructional decisions
• Recognize students stages of literacy development
• Use of modeling and opportunities for practice</td></tr>
<tr><td colspan="2">Instructional Suggestions to Enhance Existing Practices</td></tr>
<tr><td colspan="2">General Suggestions</td></tr>
<tr><td colspan="2">• Emphasize use of the gradual release model that provides students with ample opportunity for modeling, guided practice, and independent practice of skills (Pearson & Gallagher, 1983)
• Instruction should flow from explanation and instruction by teacher to student recognition and identification and finally to student production. (Johnston et al., 2015)</td></tr>
<tr><td>Developing</td><td>Rudimentary</td></tr>
<tr><td rowspan="2">Alphabet Knowledge</td><td>Students with developing COW-T likely exhibit limited alphabet knowledge, possibly recognizing less than half of the alphabet. Instruction should focus on helping students identify letters both uppercase and lowercase and possible introduction to letter sounds.</td><td>Students with rudimentary COW-T should recognize most if not all alphabet letters and corresponding letter sounds. Instruction should focus on production of letter sounds and identifying beginning sounds.</td></tr>
<tr><td>Possible Instructional Activities:
• Tracking alphabet- pointing to each letter as it is recited orally
• Name puzzles- Identifying letters in student names by rebuilding name using individual letters
• Font sort- students sort two or three letters of the alphabet that are printed</td><td>Possible Instructional Activities:
• Letter sound production- having students say the sound when shown the letter
• Tracking alphabet with letter sounds- pointing to each letter but reciting letter sound
• Alphabetize letters- students will order</td></tr>
</table>

	using a variety of fonts (Bear et al., 2012; Hayes & Flanigan, 2014; Johnston et al., 2015)	while discussing both letter name and sound (Bear et al., 2012; Johnston et al., 2015)
Phonological Awareness	Students with developing COW-T should exhibit early phonological skills. They should be working to identify rhyming words and begin to identify the number of syllables in words when said aloud.	Students with rudimentary COW-T should exhibit mastery of earlier phonological skills of rhyme and syllable awareness. They are beginning to work to identify beginning sounds in and out of context. They may also work with onset-rime and early phoneme blending skills.
	Possible Instructional Activities: • Rhyming activities: *Odd Man Out*- students identify the word that doesn't rhyme when shown pictures) or *Rhyming Concentration*- matching rhyming words in concentration game • Syllable activities: *Whose Name Is Longer*? Clapping syllables for student's names or *Syllable sort*: using pictures have students verbally say picture name and then sort by number of syllables	Possible Instructional Activities: • Beginning sound activity: *Letter Spin for Sounds*- students spin spinner and select picture that begins with sound indicated on spinner • Onset-rime activity: *Guess My Word*- using pictures of single syllable words teacher will orally split word by onset-rime (c-at) and students will blend to identify the word • Phoneme Blending activity: *It's In The Bag*- teacher will name object from in the bag by phoneme (s-t-i-ck) and students guess the object, stick, by

	(Bear et al., 2012; Hayes & Flanigan, 2014)	blending the phonemes (Bear et al., 2012; Hayes & Flanigan, 2014)
Phonics	Students with developing COW-T should exhibit early phonics skills. They will still be working on identifying alphabet letters by focusing on sorts that involve letter identification. They may also begin to sort by beginning sound using picture sorts.	Students with rudimentary COW-T will likely be working on identifying beginning sounds by sorting both pictures and words.
	Possible Instructional Activities: • *Font Sorts*- students will sort letters printed in various fonts into corresponding categories • *Picture Sorts*- students will sort pictures by beginning sound or may sort various pictures by concept (Bear et al., 2012; Hayes & Flanigan, 2014)	Possible Instructional Activities: • *Beginning Sound Sorts*: Students will sort pictures and words by the beginning sound of each into corresponding category • *Sort Objects by Sound*: students sort various provided objects by beginning sound • *Letter Sound Hunt*: Students hunt in text used for COW-T for specific beginning letter sounds (Bear et al., 2012; Hayes & Flanigan, 2014)

To further differentiate component skill instruction, teachers should apply their knowledge of students' developmental literacy stage, as demonstrated in their discussion of student and group level data, as they plan and implement small group instruction. Table 5 shows important existing practices that teachers should continue to implement in their classrooms as they consider other instructional suggestions. The general suggestions can be utilized with all students as they are provided as a means for supporting student learning. The remainder of the table addresses the components of the small group lesson,

according to the statewide emergent ELP, and includes a brief description of the characteristics typical of the developing or rudimentary learner relative to the specific component and possible instructional activities to address needs for a learner at each specific level of COW-T development. The following discussion provides suggestions for how to integrate the instructional activities and purposefully situate the learning for students depending on developmental level of COW-T.

For the developing COW-T learner, the teacher can integrate and authentically situate the instruction by providing opportunities to apply the learned skills in the context of the poem or text used for COW-T practice. For example, the alphabet knowledge and phonics practice can be integrated through letter hunts in context, and the phonological awareness skills, such as syllable awareness, can be applied as students determine and discuss how many times to point to a word with more than one syllable. To ensure the instruction is purposefully situated, the teacher can guide the instruction by explaining to students how the alphabet knowledge, phonological awareness skills and phonics are applied in their reading and writing. For example, the teacher could explain how to apply their syllable knowledge, letter knowledge, and phonics skills as students track text that includes one multisyllabic word. The teacher could model and explain how to determine the number of syllables in the word from the text and then check tracking accuracy by confirming the letter the word begins with and the beginning sound of the word.

Similar procedures are suggested for the rudimentary COW-T learner. To foster integrated instruction, the teacher can provide opportunities for students to apply their alphabet knowledge, phonological awareness and phonics skills in the context of their reading. For example, when reciting and tracking the text the teacher can ask students

how they knew they found a specific word. If asked to find the word ‘man’ in their text, the student could apply their letter sound/beginning sound knowledge to confirm the first or last sound and could also apply knowledge of onset-rime or phoneme blending by segmenting and blending the word. To purposefully situate the learning, the teacher can follow up with discussion highlighting how students used the component skills to determine the given word. Critical to differentiated instruction is teachers’ application of knowledge of their students, knowledge of the reading process, and knowledge of effective instructional practices to best fit student needs (Watts-Taffe et al., 2012). Teachers should fully apply this knowledge as they plan and implement instructional practices to best meet the needs of the students in each small group.

Recommendation 2. Both schools in this study have adopted an instructional method, the whole-to-part approach, for providing instruction for students as they work toward attaining a full COW-T. While the instruction reflected the essential elements of the approach, the nuances of the instruction designed to address students developmental stage of literacy, specifically students’ developmental level of COW-T, were not evident. Instead, the instruction for all emergent reader groups appeared to follow the whole-to-part approach without regard for developmental stage of COW-T. Further differentiation of the whole-to-part approach is needed and would address students’ developmental level of COW-T by providing nuanced instruction and nuanced instructional routines evident in provided supports and scaffolds. Table 6 details suggestions for enhancing current instructional practices related to differentiating COW-T instruction for emergent learners.

Table 6

Recommendation Two: Instructional Suggestions to Enhance Practices

<table>
<tr><th>Recommendation 2</th><th colspan="2">Existing Practices</th></tr>
<tr><td rowspan="6">Instruction of COW-T should be further differentiated to address student developmental level of COW-T.</td><td colspan="2">• Utilize whole-to-part approach for small group instruction
• Continue instructing students to utilize COW-T instructional routines of tracking, reading in, and use of beginning/ending sounds</td></tr>
<tr><td colspan="2">Instructional Suggestions to Enhance Existing Practices</td></tr>
<tr><td colspan="2">General Suggestions</td></tr>
<tr><td colspan="2">• Text Considerations: The text for COW-T instruction should be easily memorized; therefore, depending on students developmental level of COW-T each of the following will be important to consider:
  • Length of text (both in sentences per page and overall length)
  • Length of sentences (in general should be short)
  • Number of single and multisyllabic words (single syllable for developing- may use text with multisyllabic at end of sentence as support; multisyllabic words should be included for rudimentary) (Hayes & Flanigan, 2014)
• The level of support provided to students will depend on where they fall on the COW-T developmental continuum. For example, the level of teacher support (modeling versus guiding versus independent) and the sophistication of the task (matching versus finding versus identifying) will vary depending on student need.
• Instruction should flow from explanation and instruction by teacher to student recognition and identification and finally to student production. (Johnston et al., 2015)</td></tr>
<tr><td>Developing</td><td>Rudimentary</td></tr>
<tr><td>Reader Characteristics</td><td>Students with a developing COW-T will often demonstrate a lack of one-to-one correspondence in the speech to text match. Instead students often track text in left to right motion in a sweeping</td><td>Students with a rudimentary COW-T will often demonstrate accurate tracking with single syllable words and get off with multisyllabic words in the speech to text match. They are making letter</td></tr>
</table>

	or rhythmic manner. They are not making letter sound connections between what is said and what is printed on the page limiting their ability to identify words in or out of context.	sound connections between what is said and what is printed on the page by attending to beginning sound and sometimes ending sound. This aids their ability to identify words in and out of context.
Whole	All students will be introduced to the entire text. The purpose is to allow students multiple exposures to the text to aid in memorization. The activity chosen for working with the whole may depend on student's developmental level of COW-T. Students with developing COW-T may need additional modeling where those with rudimentary COW-T may be quickly ready for echo or choral reading. The following activities are ways to work with the whole, remembering to model accurate finger point reading each time: • *Model read* (teacher reads aloud while students observe) • *Echo read* (teacher reads one line aloud and then students echo the line and continues until entire text is read) • *Choral Read* (teacher and students read the entire text chorally) (Johnston et al., 2015)	
Part: Sentences	Possible Instructional Activities: • *Cut up sentences*: Students can match individual sentences to the printed sentence in the full copy of the text. • *Rebuild sentences*: Students can take individual sentences and work together as a group to rebuild the text with the individual sentences. (Hayes & Flanigan, 2014;	Possible Instructional Activities: • *Cut up sentences*: each student receives word cards and rebuilds the sentence. The group can then work together to rebuild the text using each student's sentence. • *Be the sentence*: Students are given individual words and they work to arrange themselves in the order they should be to recreate the sentence. (Bear et al., 2012; Hayes & Flanigan, 2014; Johnston et

	Johnston et al., 2015)	al., 2015)
Part: Word	Possible Instructional Activities: • *Be the Word*: Students will match individual word cards to the words in the printed text. The text can also be read aloud with students standing when their word is said aloud. • *Build a sentence*: Students can (using a sentence model) rebuild one sentence of the text with word cards- can focus on counting words in sentence and pushing each word as it is read aloud after rebuilding. (Hayes & Flanigan, 2014; Johnston et al., 2015)	Possible Instructional Activities: • *Word work*: ask students to find or identify selected words in an individual copy of text. These words can be harvested as word bank words. • *Words in isolation*: After reviewing the text students can be shown individual words to identify or find in the text and confirm by discussing how they knew they identified the word correctly. (Johnston et al., 2015)
Part: Letters/Sounds	Possible Instructional Activities: • *Letter Hunt*: Have students look for specific letters (or sounds) in the text after they have read the text. These letters and sounds can also be tied to the phonics feature being studied. (Hayes & Flanigan, 2014; Johnston et al., 2015)	Possible Instructional Activities: • *Letter Sound Matches*: As students are rereading the text selection have them identify letter sound matches or identify beginning sounds in text. The letters and sounds can also be tied to the phonics feature being studied. (Hayes & Flanigan, 2014; Johnston et al., 2015)

As shown in Table 6, as teachers consider further differentiation of COW-T instruction, there are existing practices that teachers should continue to implement in

their classrooms and are important as the instructional suggestions are considered. The general suggestions should be considered as teachers are planning instruction as the materials and supports necessary will differ by student need. The scaffolds provided to the developing learner are more supportive than those of the rudimentary learner. The level of support provided will be determined by student need and implemented during the small group lesson. The same scaffolds would be provided during instruction on subsequent days while gradually releasing the intensity of the support. In an effort to clarify the differences between developing and rudimentary COW-T development, the typical reader characteristics of each level are shared. The remainder of the table addresses the elements of the whole-to-part approach, as suggested by Johnston et al (2015) and according to the PALS emergent ELP, with possible instructional activities to address the differential needs for a learner at each level of COW-T development.

The instruction specific to COW-T is rich with opportunity for integrating the component skills and purposefully situating instruction in authentic contexts. Regardless of developmental level of COW-T, the instruction of the whole and parts allows for the integration of alphabet knowledge, phonological awareness skills, and phonics skills. For example, when working at the sentence or word level, students can confirm matching or identifying sentences or words by discussing the beginning/ending letter or beginning/ending sound of the word as well as discuss other studied letters/sounds or rhyming words. Teachers should also facilitate discussion that fosters students' understanding of why and how the instruction will help them as they become readers in the conventional sense. For example, the teacher could explain why and how by

discussing that it is important to check the beginning sounds of words because it ensures that we say what is printed.

The same differentiation should apply to the instructional routines of tracking, reading in (voice pointing) or using beginning and/or ending sounds. As recognized by several teachers in the think-aloud data, the instructional routines are hierarchical as they work from the least sophisticated skill of tracking to the most sophisticated skill of using beginning and ending sounds to identify words out of context. In this case, teachers' differentiated instruction would be similar to gradually releasing responsibility to students. For example, for the student with developing COW-T, the teacher would provide a great deal of modeling and explanation where the student with a rudimentary COW-T would require more guided practice. The need for further differentiation of instruction should further support students' development and eventual attainment of COW-T.

Recommendation 3. Instruction that is purposefully situated allows students to develop understandings of the *what*, *why*, and *how* of the situated literacy perspective and how each element will help them develop as a reader. The way instruction is situated also influences students' identities as readers (Gee, 2012) as they work to understand the purposes for reading. The instruction observed in this study appeared to be skill-driven, teacher-directed, and often devoid of larger meaning, indicating the instruction was not purposefully situated or integrated in authentic experiences. To improve the situated contexts of learning, instruction should be positioned in a way that helps students understand the *why* and *how* of the situated literacy perspective. Table 7 details

suggestions that will foster purposefully situated instruction and further develop students' identities as readers.

Table 7

Recommendation Three: Instructional Suggestions to Enhance Practices

<table>
<tr><th>Recommendation 3</th><th colspan="2">Existing Practices</th></tr>
<tr><td rowspan="3">Instruction should be situated to help students understand why they are doing a specific task and how that task will help them become conventional readers as well as position students as agents of their own learning.</td><td colspan="2">• Continue practice of teaching students the critical early literacy skills necessary for later success in reading.</td></tr>
<tr><td colspan="2">Instructional Suggestions to Enhance Existing Practices</td></tr>
<tr><td>Why
• Integrate component skill instruction to help students develop understanding of why they are doing a specific task or activity and how that skill can be applied in learning to read. For example, including alphabet knowledge (awareness of letter sounds or beginning sound work) and phonological skills (recognizing syllables or onset-rime) when working on COW-T.
• Model (think-aloud) how you are applying certain skills in application to reading (COW-T).
• Foster opportunities for students to discuss skills, strategies, and reading with peers or adults (e.g. Language experience approach, buddy work).
• Encourage students to discuss how they knew something or how they figured out a specific word.</td><td>How
• Guide students through discussion to help them understand the purposes of the activities and tasks they are completing and how it will help them become readers.
• Have students explain to you or each other how what they are doing will help them become readers.
• Allow students to share and discuss their reading and writing to help develop the understanding that reading and writing are for communicative purposes.</td></tr>
</table>

The recommended practices from Table 7 suggest teachers continue to address the critical early literacy skills in their instruction; nonetheless, additional attention is needed to address how the instruction is situated for students. As discussed in previous research integrated instruction is more effective than either component skill or literature based instruction alone and produces greater student outcomes for young learners (Hatcher et al., 1994; Pressley et al., 2001; Ukrainetz et al., 2000; Xue & Meisels, 2004). Integrated instruction that helps students see the coalescence of each of the individual component skills also aids students understanding of the larger purpose of learning to read. The suggestions for addressing the why and how of situated literacy center around teacher-guided discussion, student-led discussion, or activities that foster social interaction that ultimately help students understand the task they are engaged with is not just an isolated skill devoid of meaning, but has larger purpose in their learning to read journey. For example, instead of students marching through a small group lesson task by task, teachers should share by orally explaining with students *what* they are going to do, *why* they are doing it, and *how* it will help them become readers. To encourage social interaction, students could be provided opportunities to engage with peers and adults through buddy activities instead of doing a task or activity alone. Another possible option is to incorporate the language experience approach (Nessel & Jones, 1980; Stauffer, 1970) in which students dictate personal experiences that are recorded and used for integrated literacy instruction. Ultimately, teachers should fully integrate their instruction in authentic experiences that guide and promote discussion and foster student understanding of the communicative purposes of reading.

General Implications

This study also has implications for other populations. Our job as educators is to prepare future teachers to provide instruction to meet the diverse needs of the students in each of their classrooms as well as provide supported professional development opportunities for educators and administrators already in practice. The implications discussed in the previous section, relative to Westbrook and Southbridge Elementary Schools, are also important to take into consideration when thinking about teacher preparation programs and practicing teachers and administrators.

As with the teachers in this study, teacher education programs across the country must focus on ensuring that future teachers have the opportunity to observe successfully differentiated instruction with the opportunity to analyze, discuss how to differentiate instruction, and apply learned knowledge in practicum-based assignments in and out of the classroom context with personalized feedback. The practical opportunities suggested will allow preservice teachers to have multiple exposures to differentiated instruction ranging from developing knowledge in coursework to analyzing the application of best practices related to differentiated instruction with the ultimate goal of students being able to understand how to best meet the needs of each student placed in their classrooms. The same knowledge is essential for practicing teachers and administrators. Table 8 offers suggestions for supported learning for future and practicing teachers in terms of differentiated instruction in general that can also be applied to differentiated instruction specific to COW-T attainment.

Table 8

General Implications: Suggestions for Teacher Preparation and School Divisions

<table>
<tr><th>General Recommendation</th><th colspan="2">Suggestions for Supporting Differentiated Instruction</th></tr>
<tr><td rowspan="3">Early literacy instruction, and specifically COW-T instruction, should be differentiated to address student need.</td><td colspan="2">• Teacher preparation programs and practices in place for supporting practicing educators should address differentiated instruction.</td></tr>
<tr><td>Teacher Preparation</td><td>Practicing Educators</td></tr>
<tr><td>• Coursework that addresses differentiated instruction with practicum-based assignments
• Opportunity to observe and analyze quality differentiated instruction
• Supervised practicums- increased intensity to provide frequent feedback
• Apprenticeship model of practicum- work side by side with daily feedback</td><td>• Professional development sessions with practical application and immediate feedback
• Personalized professional development with supportive coaching model
• Observation guides- details expectations for teacher evaluation/ observations</td></tr>
</table>

Most teacher preparation programs have prescribed coursework that all students must complete. To ensure preservice teachers are prepared to provide differentiated literacy instruction, teacher preparation coursework should include a course specifically designed to address differentiated instruction. The course should provide opportunities for preservice teachers to learn content by reading and studying current research related to differentiated literacy instruction. Additionally, the course should provide opportunity for preservice teachers to observe and analyze quality differentiated literacy instruction as

well as practicum-based assignments that allow the student to apply learned content in designing differentiated literacy lessons while receiving personalized feedback on lesson design from the course instructor. Furthermore, the practicum-based assignments can also be tied to field placements allowing the preservice teacher the opportunity to implement the designed lesson under the supervision of a seasoned teacher or university supervisor.

In addition to coursework, teacher preparation programs also often utilize some form of practicum in which future teachers learn from and practice under the supervision of a seasoned teacher, however, most supervision from university supervisors is less frequent. I suggest two options for modeling practicums. First, I offer a model in which teachers are observed more frequently with conferencing sessions that provide direct feedback. Second, I offer an apprenticeship model in which the future teacher works side-by-side with an in-service teacher who fully implements differentiated instruction. In this model, the master teacher would provide daily feedback on the teacher education student's performance. Finally, observation guides are another method that can allow both the supervisor and future teacher to see exactly what is expected from the instruction and allow them to prepare lessons that meet the set criteria. Each suggestion presents an opportunity to apply learned knowledge under the supervision of a university supervisor or master teacher with the key being the intensity of feedback provided.

In terms of expanding professional development for practicing educators to include teachers as well as other school personnel such as administrators, two additional options are suggested. First, traditional professional development could be provided, but extended to include opportunity for application with feedback from the consultant, or

other designated personnel. A second option would be for teachers at a certain grade level or team to receive professional development personalized to their needs with coaching to follow. This model would allow the trainer to serve as a coach as they observe and provide personalized feedback. Finally, observation guides are also suggested as a means for teachers and administrators to determine what is expected from a differentiated lesson. The guide will then allow the teacher to plan lessons that address the expectations of a differentiated lesson and allow the administrator to know exactly what to look for in the implemented lesson. The suggestions offered provide a starting point for ensuring teachers, both future and practicing, are prepared with both the knowledge necessary for differentiating lessons as well as an opportunity for guided practice with feedback.

Limitations

Several limitations of this study might affect the interpretations of the implications detailed in this chapter. A possible limitation to the study is the use of archived data. The archived data were collected for a different purpose, to see how kindergarten teachers use assessment data to inform instruction. The study may have yielded different results had the data been collected specifically for the study's purpose, which was to describe current COW-T instructional practices and methods in light of the components, developmental, and situated literacy perspectives. The use of archived data also limited my ability during the analysis process to "go back into the field" to seek additional data for emerging themes or unanswered questions. The ability to gather additional data may have shed light on teachers instructional practices related to COW-T and the three literacy perspectives that were not documented due to the different focus of

the larger project. Another possible limitation is the observational time. Each classroom observation occurred for 30 minutes and occurred three to four times per teacher, with the exception of one teacher that was observed eleven times, across the course of the academic school year. The data may have yielded different results had each observation occurred for the entire literacy block, allowing observation of each small group lesson, and with greater frequency across the school year. Finally, the in depth knowledge of the data collectors of the larger team is another possible limitation as the team came from rich and diverse backgrounds and did not approach data collection with a strict literacy focus.

Concluding Remarks

Early literacy development continues to be at the forefront of research and policy as an alarming number of students in the United States demonstrate difficulty learning to read with such difficulties persisting well into their school career. Ensuring students receive high-quality instruction is essential to reducing the prevalence of difficulties in learning to read and underachievement in reading. This study sought to explore the instructional practices of kindergarten teachers' early literacy instruction and instructional practices, specifically related to the attainment of COW-T, as a means for better understanding the early literacy instruction of kindergarten classrooms today. The focus on the attainment of COW-T is critical as it is considered a pivotal event for young learners as they transition from non-readers to readers in the conventional sense. As argued, the attainment of COW-T is a cornerstone in early literacy development.

The finding of this study revealed that teachers considered and implemented practices to address COW-T in their small group literacy instruction. They used a current

instructional approach, the whole-to-part approach, and included instruction of COW-T routines while also ensuring to, at least on the surface, instruct all essential emergent literacy skills. However, the instruction provided was not consistently targeted to address student's developmental literacy needs. Additionally, the instruction was not situated or integrated in a way to further students' development of their identities as readers. Collectively, the findings suggest teachers may benefit from additional support and training in providing differentiated instruction that is purposefully situated in authentic and socially-constructed experiences that further promote student attainment of COW-T and ultimately the transition from emergent to beginning reader.

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Appendix A

Log of Data Collection

Participant	Observations	Documents	Think Alouds
Westbrook Elementary School			
Ms. Garcia	9/8/14 9/23/14 10/09/14 10/27/14 11/17/14	None available	11/10/14 05/14/15
Ms. Henry	9/8/14 9/23/14 10/9/14 **2/11/15**	None available	10/13/14 **02/11/15** 05/14/15
Ms. Kelly	9/8/14 9/23/14 10/09/14 10/27/14 11/17/14 **02/11/15** 05/04/15 05/05/15 05/06/15 05/07/15 05/08/15	9/23/14 10/27/14 02/11/15	10/13/14 02/11/15 05/14/15
Ms. Smith	9/8/14 9/23/14 10/09/14 11/17/14 **2/11/15**	10/09/14	10/15/14 **02/11/15** 05/14/15
Southbridge Elementary School			
Ms. Clark	9/12/14 10/06/14 **12/11/14** 3/23/15	9/12/14 10/06/14 12/11/14	10/17/14 05/06/15
Ms. Park	9/12/14 10/06/14 **12/11/14** 3/23/15	9/12/14 10/06/14 12/11/14	10/17/14 05/06/15

Ms. Sanchez	9/12/14 **12/11/14** 3/23/15	9/12/14 12/11/14	10/20/14 05/21/15
Ms. Torres	9/12/14 10/06/14 **12/11/14** 3/23/15	9/12/14 12/11/14	10/17/14 05/06/15
Ms. Williams	9/12/14 10/06/14 **12/11/14** 3/23/15	9/12/14 12/11/14	10/20/14 05/06/15
	Informant Interview		
Interview with Consultant	**10/08/15**		

Bold indicates dates I collected data.

Appendix B

Demographic Survey Questions

1. What type of professional license do you hold? Check all that apply.
    a. Early childhood education
    b. Elementary education
    c. Special education
    d. English as a Second Language (ESL)
    e. Reading Specialist Certification
    f. Provisional Certification
    g. Administration and Supervision
    h. Other
2. Not including this year, how many total years of experience do you have in your current role? (box provided for typing in years in current role)
3. What is the highest level of education you have completed?
    a. Bachelor's degree
    b. At least one year of coursework beyond a Bachelor's degree
    c. Master's degree
    d. Education specialist or professional diploma based on at least one year of course work beyond a Master's degree
    e. Doctoral degree (e.g. M.D., Ed.D., J.D., Ph.D.)
    f. Other
4. What was your major when you received your highest degree?
    a. Early childhood education

b. Elementary education

c. Special education

d. English as a second language (ESL)

e. Reading

f. Other

5. Please indicate the professional activities you participated in within the past 12 months. Check all that apply.

a. Took graduate level courses for college credit

b. Attended local (school/district) conference or workshop

c. Attended statewide conference or workshop

d. Attended national/international conference or workshop

e. Presented at a local (school/district) conference or workshop

f. Presented at a statewide conference or workshop

g. Presented at a national/international conference or workshop

h. Read articles from professional journals

i. Member of a Professional Association

j. Other

6. Please indicate the categories that describe your race/ethnicity; Check all that apply.

a. Black/African American

b. Native American/Indian

c. White/Caucasian

d. Asian/Pacific Islander

e. Hispanic

f. Other

Appendix C

Informant Interview Questions

1. Did you do any professional development with Willow Public Schools to the 2014-2015 academic year? Could you give me some background regarding how you came to be involved?
2. What background information regarding the school division (Willow Public Schools) could you share related to their early literacy instruction in Kindergarten or their history of professional development addressing early literacy instruction in Kindergarten?
3. What were your impressions of the general school setting (specifically related to Westbrook)? Your general impressions of kindergarten literacy instruction?
4. What was the thrust of your advice to Willow Public Schools regarding COW instruction?
5. Thinking specifically about Willow's kindergarten classrooms, what did you perceive was the main focus for improvement?
6. What do you think motivated Willow Public Schools to participate in the larger research study exploring Kindergarten teachers' use of assessment data?
7. Did you do any professional development with Cypress Public Schools to the 2014-2015 academic year? Could you give me some background regarding how you came to be involved?

8. What background information regarding the school division (Cypress Public Schools) could you share related to their early literacy instruction in Kindergarten or their history of professional development addressing early literacy instruction in Kindergarten?
9. What were your impressions of the general school setting (specifically related to Southbridge)? Your general impressions of kindergarten literacy instruction?
10. What was the thrust of your advice to Cypress Public Schools regarding COW instruction?
11. Thinking specifically about Cypress's kindergarten classrooms, what did you perceive was the main focus for improvement?
12. What do you think motivated Cypress Public Schools to participate in the larger research study exploring Kindergarten teachers' use of assessment data?

Appendix D

Example Observation Protocol

Field Notes

Setting: **Time:** **Number of students:** **Adults:** **Scheduled Activities:** **Environment Description:**	
FIELD NOTES	**ANALYTIC NOTES**
REFLECTIVE JOURNAL	

Appendix E

List of Codes

The final list of codes is presented in the following bulleted list and reflects all codes added, merged, and deleted. The main bullet points were primary codes and under each primary code (if applicable) are the corresponding sub codes.

- Alphabet Knowledge
    - Beginning Sound
    - Letter Sound
    - Letter Recognition
- Concept of Word in Text
    - COW Instructional Method
        - Working with Whole
            - Reciting Poem/Text
        - Working with Part
            - Sentence Level Work
            - Word Level Work
                - Identifying words in Context
                - Identifying words in Isolation
            - Working with Letters/Sounds
    - Child Routines
        - Strategy: Beginning/Ending Sound
        - Strategy: Reading In
        - Strategy: Tracking
    - Teacher Routines
        - Modeling Tracking
        - Strategy: Beginning/Ending Sound
        - Strategy: Reading In
- Concepts About Print
- Isolation: Task
    - Individual Work
    - Skill Driven Task
    - Teacher Directed Task
- Oral Language
- Phonological Awareness
    - Onset-Rime
    - Phoneme
    - Rhyme
    - Syllable
    - Word

- Read Aloud
    - With Discussion
    - Without Discussion
- Socially Applied
    - Collaborative Work
    - Opportunity for Practice
    - Opportunity for Sharing
    - Opportunity to talk about reading
    - Opportunity to talk about writing
- Writing
    - Letter Sound Connections
    - Letter Forms
    - Phoneme
    - Salient Sounds

Appendix F

Excerpt from Conceptually Clustered Matrix

COW-T			
Teacher	**Teacher Routines**	**Child Routines**	**Instructional Approach**
Park	Modeling Tracking o Students are working to track as teacher monitors- student demonstrates difficulty- teacher provides modeling support and guidance. Source: 2014.10.06_JMB Strategy Beg/End o Students are working with poem- teacher asks them to find word- asks them how they knew it was that word (ref beg sound) and then models how to do it with word that starts with f. Source: 2014.09.12_MEW Strategy- Reading in o Students are reciting poem in small group and teacher provides model and support for finding a word by reading in looking for word that begins with f. Source: 2014.09.12_MEW	Tracking o Teacher working with small group has students read with her and then to a partner (poem) as students track. Source: 2014.09.12_MEW o Teacher is working with small group- asks individual students to track poem- provides support when necessary. Source: 2014.10.06_JMB o Discussion of various students and their current COW abilities. Source: ThinkAloud_2014.10.17 Strategy-Beg/End o Teacher discussing how they know the word is little. What does fat start with- let's find it. Students begin to track and recite to find fat. Source: 2014.09.12_MEW o Students doing a word find in book trying to find word that ends the same as makes and starts the same as thinks. Source: 2015.03.23_JMB Strategy- Reading In o Have students see if they can find the word fat- let's read and see- students read in the line until they find the word. Source: 2014.09.12_MEW o Discusses student use of reading in as a strategy. ThinkAloud_2014.10.17	Work with Whole o RECITE: Students are in small group with teacher with teacher assessing poem and tracking. Source: 2014.09.12_AK o Students working with poem in small group with tracking discussing how many times touch each word. Source: 2014.10.06_JMB o Discussing small group and student needs and mentions use of poem for instruction. Source: ThinkAloud_2014.10.17 Work with Part o WORD: Students are working with the poem- teacher requests they find words in context. Source: 2014.09.12_MEW o WORD: Discussion of student knowledge at the word level and quick checking words in insolation during instruction. Source: ThinkAloud_2014.10.17 o SENTENCE: Students and teacher chorally reading one page of text. Discusses specific word. Source: 2014.12.11_JMB o LETTER/SOUND: Following reading of poem teacher works on beginning sound work- with a sort. Source: 2014.10.06_JMB o LETTER/SOUND: finding words that have the same beginning sound. Source: 2015.03.23_JMB
Smith	Tracking o Teacher is working with students with a short book (2 word per page) she models pointing as students echo read with her. Source: 2014.11.17_TRM Strategy Beg/End o Teacher with whole group- has book on smart board and asks students how they know the word is rain- beginning sound- and repeats with other words. Source: 2014.09.23_MAI o Teacher having students identify words and talk about how they knew it was that word (beginning sound). Source: 2014.11.17_JMB Strategy: Reading In o Teacher discussing how she uses strategies and what she wants to see students doing using. ThinkAloud_2015.05.14	Tracking o Whole group activity where students are tracking alphabet- teacher circulating to ensure accuracy and participation. Source: 2014.09.23_MAI o Teacher working with group- reciting and tracking poem- teacher watched individual students track. Source: 2014.10.09_TRM o Echo reading book with assistant- tracking as they echo read. Source: 2014.11.17_TRM o Students are popcorn reading and while others are reading the students are tracking to follow along. Source: 2015.02.11_ECCB o Discussing how she uses student ability in tracking to design instruction. Source: ThinkAloud_2014.10.15 Strategy-Beg/End o Teacher using smartboard with whole group- how do we know it is the word rain- beginning sound reference- repeats several times with other words. Source: 2014.09.23_MAI o Teacher working with students- underline words for students to identify. Then asks how they know they found the correct word. Source: 2014.11.17_JMB Strategy- Reading In o Students are asked to identify words as teacher underlines them. Students read in to help figure out the given word. Source: 2014.11.17_JMB	Work with Whole o RECITE: Students working on reciting and tracking poem. Source: 2014.10.09_TRM o Discussion of instructional materials with certain students. Source: ThinkAloud_2015.02.11 o Discussion of instructional materials for lowest group. Source: ThinkAloud_2015.05.14 Work with Part o WORD: Working on rebuilding sentence strips and teacher asks- can you find a given word? Source: 2014.10.09_MAI o WORD: writing activity- discussing sentence to write- how many words in our sentence. Students count how many words. Source: 2015.02.11_ECCB o WORD: students with TA and create sentence and draw blanks in notebook for each word. Source: 2015.02.11_MEW o WORD: Discussing using both words in isolation and context for determining student ability/progress. Source: ThinkAloud_2014.10.15 o SENTENCE: Rebuilding poem with sentence strips. Source: 2014.10.09_MAI o SENTENCE: Children were to match the strip to the poem in their folders- then recite and track. Source: 2014.10.09_TRM o LETTER/SOUND: NO EVIDENCE

Appendix G

Excerpt from Analytic Log

Week of Month	Specific Data Sets in Use	Procedural Steps	Decision Rules	Analysis Operations			Conclusions Drawn	Researcher Comments (Reflections)
				Readying data for analysis	Drawing Conclusions	Confirming Conclusions		
Last week of June (Beginning 6/24)	Data excerpts specific to COW-T (all COW-T coded data)	Pattern coding; coding for instructional approach (whole-to-part) Conceptually clustered matrix: COW- documenting evidence for each teacher	Include all COW-T excerpts		Drawing Themes/patterns		Analysis Notes: Memo dated 6/28/16	Data excerpts seem to reveal teachers use of whole-to-part approach. All basic aspects of approach are evident in each classroom.
Last week of June (Beginning 6/30)	Data excerpts specific to COW-T (all COW-T coded data)	Pattern coding; coding for instructional routines Conceptually clustered matrix: COW- documenting evidence for each teacher	Include all COW-T excerpts		Drawing themes/patterns Counting		Analysis Notes: Memo dated: 7/2/16	While coding for approach instructional routines were also evident. Codes emerged and data revealed teachers instruct and students apply these routines. Counting (frequencies) revealed discrepancy in teacher instruction and student application

Adapted from Miles et al., 2014, p. 318