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**TEACHING PHONOLOGICAL AWARENESS TO CHILDREN IN  
EARLY LITERACY ACQUISITION: AN ANALYSIS OF A DISTRICT'S  
KINDERGARTEN CORE LANGUAGE ARTS CURRICULUM  
MATERIAL**

Valerie Jensen

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DISTRICT'S KINDERGARTEN CORE LANGUAGE ARTS CURRICULUM  
MATERIAL**

By

Valerie Jensen

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## **ABSTRACT**

# **CHILDREN IN EARLY LITERACY ACQUISITION: AN ANALYSIS OF A DISTRICT'S KINDERGARTEN CORE LANGUAGE ARTS CURRICULUM MATERIAL**

Valerie Jensen

University of Nebraska, 2023

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This study explored and analyzed the phonological and phonemic awareness components of a teacher edition of a school district's kindergarten language arts curriculum material. Criteria for this pragmatic content analysis were derived from the research on phonological awareness and the sequence of instruction and intervention (Schuele and Boudreau, 2008). Lessons designated by the publisher as phonological and phonemic awareness in the weekly plan were coded for the type, occurrence, scope, and sequence of phonological and phonemic awareness components, through the 11 instructional units. The phonological and phonemic awareness skills were then coded according to the sequence of phonological instruction and intervention.

The findings indicated that phoneme blending, blending sounds into words, a more complex phonemic awareness skill was prevalent in scope and presented through lessons beginning with Unit 1. Findings further noted phonological or phonemic awareness lessons designated by the publisher when compared with the sequence of phonological awareness instruction and intervention as phoneme deletion, manipulation, and segmenting of initial and final sounds were taught though not present across the

entire instructional year or in the case of phoneme deletion was presented 6 times at the end of the instructional year. Phonological awareness skills of less complexity were noted to be limited in scope. Other language experiences as part of the language arts curriculum were evident such as weekly word work phonics lessons linking phonological awareness skills to the alphabetic principle, practice writing letters, shared reading of poems, reading words and sentences, and opportunities to practice decoding words in connected text with the use of decodable readers.

The study's findings demonstrated the scope and sequence of phonological and phonemic awareness skills taught. Of note, the language arts curriculum's sequence of phonological and phonemic awareness skills taught did not necessarily align with the framework of the sequence of phonological awareness instruction and intervention, even though the phonological and phonemic awareness skills were evident in the curriculum materials

## DEDICATION

To my family, you are my everything. Mom and Dad, there are not enough words to thank you for the choices you made every day to put our well-being above all else and ensure that education was available to us knowing the power it has and how it would shape our future. Thank you for the words of wisdom, encouragement, and love when I needed it most. Most of all thank you for setting the example of what a foundation of family and love is all about. I am strong and resilient because of you.

To my children, Aric, Maren, and Dana my greatest joy, thank you for supporting my dream. It was through your support that I was able to refocus, reset, and restart when life got in the way. I would not have made it through this journey without you. My wish for you is that your life is all you want it to be, continue to dream and to learn. Take care of each other and those you love for there is nothing more important and greater than that.

To Layne and April, two amazing women who have brought happiness, joy, and strength into our lives. Your caring and love have made our foundation of family strong.

To my grandchildren Parker and Freya. What a wonderful gift to see the world through your eyes. I am excited to watch your journey of learning and see what the future holds for you.

To all of you, remember what you leave behind is not what is engraved in stone but what is woven into the lives of others.

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To the Educational Leadership Team at UNO thank you for the opportunities to deepen my knowledge, be a critical thinker, support my journey of personal growth, and most of all remind me of how much I love learning.

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## CHAPTER 1

### INTRODUCTION

When I was young, I saw the other kids reading books that were meant for children in my grade or above and wondered why I just couldn't get it. The words on the page did not make sense, the letters did not make sense as words and I tried to guess what the word was by the pictures, if there were any or just guessing if I knew the first letter or two of a word. The teacher tried to measure how fast I read, which I tried to avoid because my reading was slow and awkward, I couldn't figure out unfamiliar words and I couldn't even remember the sight words I practiced. Every time I read it was like trying to find a word buried in a sandcastle, taking the sandcastle apart to discover it was the wrong word and having to rebuild the sandcastle before I could move on to the next sandcastle, with the next wrong word. I knew I wasn't catching on. I was embarrassed. I felt dumb. I tried to learn by listening and observing but soon because of my struggles with reading, the teacher's expectations and eventually my expectations for academic success were lower. I wouldn't amount to anything. As an adult, I took jobs or could only take jobs where limited reading was necessary, where I could just get by, or I could use the skills I perfected that wouldn't call my lack of reading into question. Talk about feeling unfulfilled.

Across the country, millions of kids are struggling to read. According to the National Assessment of Educational Progress, 32 percent of fourth-graders and 24 percent of eighth-graders are not reading at a basic level. Fewer than 40 percent are proficient or advanced (Hanford, 2019). Results from the National Assessment of Education Progress (NAEP, 2019) have shown that 40% of fourth graders without a

disability read at or above a proficient level, compared with 12% of their peers with a disability. Furthermore, only 27% of students without a disability scored at a below basic level, compared with 68% of students with a disability (NAEP, 2019). In 2019, average reading scores were lower for both fourth- and eighth-grade students compared to 2017; scores were lower by one point at fourth grade and lower by three points at eighth grade. At grade 12, the average score was two points lower in comparison to 2015. Average scores at grades 4 and 8 were higher compared to the first reading assessment in 1992; however, the average score at grade 12 was lower in comparison to 1992 (NAEP, 2019). Seidenberg (2017), however, noted that the differences in reading since 1992 are tiny, and a five–or eight-point change on a five-hundred-point scale within the basic range over a twenty-three-year period is small.

One method toward raising achievement and reducing inequality in reading statistics is to ensure that the key predictors of early literacy success are taught effectively and efficiently in the classroom curriculum (Carson, et al., 2013). The National Reading Panel’s 2000 report to the U.S. Congress, which described a meta-analysis of 52 controlled experimental studies published in peer-reviewed journals, concluded that phonological awareness instruction has moderate and statistically significant effects on reading and spelling abilities and that explicit instruction is beneficial for typically developing children, for young children at risk for reading difficulties, and for poor readers (Anthony & Francis, 2005). We read with our eyes, but the starting point for reading is speech (Seidenberg, 2017).

Phonology is the domain of language that pertains to the elements of speech and the systems that govern the structural relationships among these elements within and

across words (Scarborough & Brady, 2002). Phonological awareness tasks can be broadly categorized by performance types, including rhyming, matching, blending, segmenting, or manipulating sounds, and by phonological units (Choi et al., 2017). Phoneme awareness performance is a strong predictor of long-term reading and spelling success, and it can predict literacy performance more accurately than variables such as intelligence, vocabulary knowledge and socioeconomic status (Gillon, 2018)

Phonological awareness instruction and intervention are provided to children for one purpose: to facilitate the acquisition of reading and writing, specifically, decoding words and spelling words (Schuele & Boudreau, 2008). Understanding how to integrate phonological awareness effectively and efficiently into everyday classroom environments is critical for supporting initiatives that can elevate reading achievement and reduce inequality in reading outcomes (Carson et al., 2013).

Recent intervention research with children at risk for reading failure has provided powerful converging evidence that phonemically explicit interventions are more effective than interventions that are less phonemically explicit (Foorman & Toregsen, 2001). Explicit instruction requires that the skills and strategies necessary for developing reading competence (phonological awareness, word recognition, fluency, vocabulary, comprehension) or for remediation of areas of weakness are taught directly to students (Ritchey, 2011). An explicit instructional move is defined as specific, discrete instruction, elements, or actions provided to a teacher in the core reading program teachers' edition lesson on how to teach a particular reading task, skill, strategy, content, or concept (Ruetzel et al., 2014).

**Problem Statement**

Reading is interesting, it is complex, it is essential and there is an urgent need to reduce the number of people who read little or not at all and to ensure that future generations will be sufficiently literate to thrive in the world they will inhabit (Seidenberg, 2017). Kindergarten teachers rely on the core language arts curriculum to provide phonological awareness instruction in the classroom. Based on the National Reading Panel (2000) findings one would expect to see evidence of explicit instruction of phonological awareness in core reading programs.

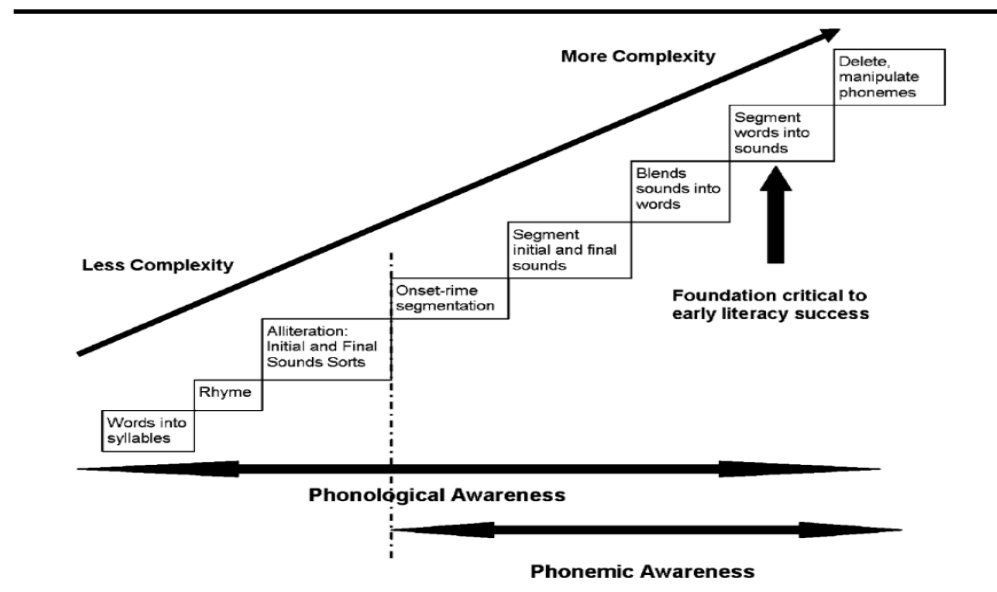
One explanation among many for the lower reading performance of students with disabilities, even after instruction in phonological awareness, may be the phonological awareness curriculum (Wanzek et al., 2000). With the vast body of research that demonstrates the powerful relationship between phonological awareness and literacy development, one would expect that integration of this knowledge would be evident in the core language arts curriculum used in today's kindergarten classrooms.

**Purpose of the Study**

The purpose of this pragmatic content analysis was to explore and analyze phonological awareness components of a teacher edition of a local school district's kindergarten core language arts curriculum material.

**Figure 1.**

**Conceptual Framework-Sequence of Instruction and Intervention (Schuele & Boudreau, 2008)**



Because phonological awareness has been established as one of the prerequisites for reading acquisition, phonological awareness instruction, therefore, is obligatory, not optional (Simmons & Kame'enui, 1998). When reviewing a language arts curriculum, one must question whether the instruction is systematic with a prescribed order for introducing specific skills within each component of reading. As this applies to phonological awareness one must be aware of the variety of skills that range from less complex such as words in syllables to the more complex skills of deletion and manipulation of phonemes within the instructional process. Phonological awareness research has identified sequences of instruction that are important at a simple, shallow level of phonological awareness skills and those that are representative of the complex deep-level phonological skills (Justice & Schuele, 2004 as cited in Schuele & Boudreau,

2008). The sequence of phonological awareness instruction and intervention framework by Schuele & Boudreau (2008) is used in this study because it supports the National Reading Panel (2000) “Teaching Children to Read” recommendations that phonemic awareness is a necessary instructional component within a complete and integrated reading program. Phonemic awareness is a key component that contributes significantly to the effectiveness of beginning reading and writing competence. The National Reading Panel (2000) concluded that systematic and explicit instruction in phonemic awareness should be an important component of classroom reading instruction for children in preschool and beyond who have not been taught phoneme components or who have difficulties understanding that the words in oral language are composed of smaller speech sounds-sounds that will be linked to the letters of the alphabet (Langenberg, 2000). Delineation of the scope and sequence of instruction or intervention follows from a consideration of what preschool children learn and how kindergarten and early elementary children respond to phonological awareness instruction and intervention (Schuele & Boudreau, 2008). There is general agreement that the sequence of phonological awareness development or learning proceeds from rhyme and the segmentation of words, with the highest level of phonological awareness being the deletion and manipulation of phonemes (Schuele & Boudreau, 2008). Therefore, it is equally important that a scope and sequence of phonological awareness instruction as a framework is used when exploring and analyzing whether phonological awareness components are evident within the kindergarten core language arts curriculum.

**Research Question**

What type and occurrence of phonological awareness components are evident in the teacher edition of a local school district's kindergarten core language arts curriculum material?

**Instrument**

My education career brings a unique perspective to this pragmatic content analysis study. The importance of phonological awareness as well as other important variables such as the syntactic, semantic, and morphological knowledge of spoken language is foundational for the development of reading, spelling, and written language acquisition. With a degree in Speech-Language Pathology, I understand the difficulties children with speech sound disorders have when learning to read without specific phonological awareness intervention. Phonological involvement in speech production involves a complex process of organizing, accessing, selecting, and sequencing speech sounds according to a child's spoken language as well as the phonemes for the word. It is important to understand if children with speech sound or language disorders are exhibiting phonological processing difficulties as this increases their risk for reading and spelling difficulties. The reciprocity of phonological awareness and literacy development is established in the literature as each builds on the other, beginning with an understanding that words can be broken into smaller parts. The Speech Language Pathologists' content knowledge of phonological awareness differs from that of the classroom teacher or a special education teacher and can be instrumental when consulting with teachers on phonological awareness assessment, instruction, and intervention or being an interventionist or a teacher.



Having a background in Speech-Language Pathology as well afforded me a skill set to bring into the classroom as a preschool and kindergarten teacher. With that skill set in conjunction with my understanding of the components and content of quality early childhood education environments, I was able to evaluate early literacy curricula to determine if the instruction was relying solely on a letter-of-the-week format, without a phonological awareness component and if it was meeting the needs of all students. My assessment background as well as knowing how to use assessment information to identify, develop and differentiate instruction and interventions for individual students who may not have responded to the core classroom instruction was beneficial.

I took this background and experience into educational leadership as an elementary principal of a preschool to sixth-grade building, an administrator at an education agency and a coordinator of early childhood services. As an instructional leader instructional quality is a top priority. Understanding changes in conceptions of curriculum, curricular sources, curriculum evaluation, theoretical concepts in teaching, as well as principles of student assessment is critical as an instructional leader, as we are a resource in supporting what we know best about teaching and learning and strengthening the quality of teaching for the benefits of all children. My collective experience was a resource through the preschool language arts curriculum adoption process of a local school district.

With my collective educational experience, I have a unique lens or perspective on understanding the possibilities and or limitations of this pragmatic content analysis.

## **Data Collection Method**

To determine the extent of phonological awareness components the primary instructional activities designated by the publishers as phonological and phonemic awareness were studied, and a descriptive coding system was developed to examine the scope and sequence of phonological awareness components as well as to examine the magnitude of phonological awareness components. The steps involved in the coding process include a review of the eleven language arts curriculum units, tracking phonological awareness lessons by recording the week, determining the phonological or phonemic awareness component essential in the lesson, and the content focus of the phonological and phonemic awareness lesson. The lessons designated by the publisher as phonological and phonemic awareness were then coded on the conceptual framework of phonological awareness instruction and intervention by Schuele & Boudreau, (2008).

## **Definition of Terms**

**Alliteration.** Sorting words by the initial or final sound.

**Alphabetic principle.** The concept that letters or groups of letters in alphabetic orthographies (i.e., written systems) represent the phonemes (sounds) of spoken language (International Literacy Association, ILA).

**Big Ideas.** The notion of big ideas is roughly comparable to important ideas, knowledge, and concepts. (Carnine, 1994). Important key concepts that facilitate the most efficient and broadest acquisition of a skill or knowledge, such as reading and they are foundational skills that warrant instructional priority (Smith et al., 2001).

**Blending.** Combining units of sound (syllables, onsets and rimes, phonemes) to form a word (International Literacy Association, ILA).

**Conspicuous Strategies.** Strategies are a general set of steps experts follow to solve problems and lead to the effective and efficient acquisition of a skill (Simmons & Kame'enui, 1998).

**Judicious Review.** Successful learning also depends upon a review process to reinforce the essential building blocks of information within a content domain (Simmons & Kame'euni, 1998).

**Mediated Scaffolding.** Mediated scaffolding refers to the personal guidance, assistance, and support that teachers, peers, materials, or tasks provide a learner (Simmons & Kame'euni, 1998). It is external support provided by the teacher, or materials during the initial learning of strategies for consciously hearing and manipulating sounds (Smith et al., 2001).

**Onset and Rime.** Within a syllable, the portion preceding the vowel is called the *onset*, and the remainder of the syllable is called the *rime* (Scarborough & Brady, 2002).

**Phonemes.** The smallest units into which speech can be divided, and that make a difference to the meaning of a word (Scarborough & Brady, 2002).

**Phoneme addition.** Phoneme addition involves adding a new phoneme, the smallest meaningful unit of spoken language, to an existing word to make a new word. For example, the phoneme /s/ being added to *rope* results in *ropes* (ILA).

**Phonemic awareness.** The ability to detect and manipulate the smallest units (i.e., phonemes) of spoken language. For example, recognition that the word *cat* includes three distinct sounds or phonemes represents phonemic awareness. Individuals with phonemic awareness can blend phonemes to form spoken words, segment spoken words

into their constituent phonemes, delete phonemes from spoken words, add phonemes, and substitute phonemes (ILA).

**Phonics.** An approach to teaching reading that emphasizes the systematic relationship between the sounds of language and the graphemes (i.e., letters or letter combinations) that represent those sounds. Learners apply this knowledge to decode printed words (ILA).

**Phonological awareness.** Awareness of sounds of words in learning to read and spell. (*Note:* The constituents of words can be distinguished in three ways: (1) by syllables, as /boʊk/, (2) by onsets and rimes, as /b/ and /oʊk/, or (3) by phonemes, as /b/ and /oʊ/ and /k/. (*cf.*) (ILA).

**Primed Background Knowledge.** Successful acquisition of new information depends largely on the knowledge the learner brings to a task, the accuracy of that information, and the degree to which the learner accesses and uses that information (Simmons & Kameʻeuni, 1998).

**Rhymes, rhyming words.** Words that begin differently but then share a stressed vowel and all phonemes that come after it (e.g., *moon-June; city-pretty; inspection-connection*) (Scarborough & Brady, 2002).

**Scope and sequence.** Structure of a curriculum that includes the skills, strategies, content, and the order in which it will be taught (ILA).

**Segment.** A phoneme or a phone. A *segmental* analysis is thus one that breaks words into phonemes or phones (Scarborough & Brady, 2002).

**Strategic Integration.** Strategic integration involves the careful combination of new information with what the learner already knows to produce a more generalizable, higher-order skill (Simmons & Kame'euni, 1998).

**Syllable.** A speech unit consisting of a vowel nucleus that can be preceded and or followed by a consonant or a *consonant cluster* (two or more consonants in succession without an intervening vowel (Scarborough & Brady, 2002).

### **Significance of the Study**

This pragmatic content analysis is significant even though it focuses on a single language arts curriculum because it produces an in-depth description of the phonological awareness components that contribute to the literacy acquisition of a local school district's kindergarten students. Phonological awareness is a critical skill that contributes to literacy acquisition, and the integration of this knowledge in educational settings can be witnessed in the inclusion of phonological awareness instruction (Schuele & Boudreau, 2008). School leaders are required to reflect on their usage of curriculum, selection of curricula, and interventions (Morrison et al., 2021). Research with phonological awareness intervention has provided important insight into issues of timing, duration, intensity, scope, sequence, and teaching practices that contribute to highly effective intervention (Schuele & Boudreau, 2008). School district leaders as well as teachers should be aware of the key components of phonological awareness, timing, duration, intensity, scope, and sequence of instruction. An evaluation of the core language arts curriculum enables school leaders to identify consistency with research, identify gaps in the curriculum, identify gaps between program and program delivery, and identify the amount of support teachers and students need to effect change. This is

especially important for children who do not master phonological awareness skills through classroom curricula. The value of rigorously evaluating the quality of phonological awareness instruction in the curriculum may lie in the process itself. It may alert district leaders that the framework for evaluating language arts curriculum or reading programs during curriculum adoption may need to be revised.

Second, this pragmatic content analysis contributes to the working point of view of what we think we understand about educational research and the recommendations from the National Reading Panel (2000). Are there possibilities and or limitations of the research on educational practices? How is the research utilized when a core language arts curriculum is designed and developed? Does the curriculum ensure that research on the critical components of literacy acquisition is inherent, and explicitly taught in the classroom curriculum especially where the impact of phonological awareness skills is the greatest? Does it support the acquisition of phonological awareness for all children? Has the curriculum bridged the gap between research and instructional practices? If we commit to utilizing quality materials with aligned and meaningful instructional practices, we can support literacy acquisition for all learners (Pennell, 2020). Ultimately, implications for kindergarten teachers' day-to-day practices in the delivery of instruction in phonological awareness, with the result increased student achievement in reading.

### **Summary**

Curriculum design principles that relate to explicit instruction of phonological awareness in the kindergarten core reading program as well as a comprehensive scope and sequence of phonological skills systematically designed and delivered support the foundation of reading an alphabetic language. The type and scope and sequence of

phonological awareness development were demonstrated through the review and analysis of 11 units of a teacher edition of a kindergarten core language arts program for those components. The literature on phonological awareness, phonemic awareness, and its importance in the acquisition of reading will be reviewed in Chapter Two. Chapter three will present the research questions and methodology for analyzing the teacher edition of a core language arts program of phonological and phonemic awareness skills. An analysis of data related to the research questions will be examined in Chapter Four. Finally, Chapter Five will provide findings related to the literature, implications, and recommendations for future research and conclusion.

## CHAPTER 2

### REVIEW OF LITERATURE

I wasn't lazy, I really wasn't it was just that the words on the page did not make sense, and the letters did not make sense as words. The words never flowed easy in my head and memorizing the words only gets you so far because you can't remember them all. Not catching on was obvious to me, the teacher, and the other students. Reading was difficult.

Average reading scores for students in both grades 4 and 8 were lower in 2019 compared to 2017 with percentages of students at or above NAEP proficient lower in reading (NAEP, 2019). NAEP (2019) further reported that looking back at earlier assessment years on the nearly 30-year reading trend line shows that the average reading score at each grade is not significantly different compared to a decade ago but is higher compared to the first assessment year in 1992. The fourth-grade average score in 2019 was slightly higher at grade 4 when compared with 1998 data (NAEP, 2019). Reading scores compared to a decade ago were lower or not significantly different for lower-performing students at the 10<sup>th</sup> and 25<sup>th</sup> percentiles (NAEP, 2019).

One method toward raising achievement and reducing inequality in reading statistics is to ensure that the key predictors of early literacy success are taught effectively and efficiently in the classroom curriculum (Carson et al., 2013). Frankel et al. (2016) defined literacy as the process of using reading, writing, and oral language to extract, construct, integrate, and critique meaning through interaction and involvement with multimodal texts in socially situated practices. The National Early Literacy Panel (National Institute of Child Health and Human Development, 2010) identified at least six



components of skilled reading: Alphabet knowledge, rapid automatic naming (RAN) of letters or digits, RAN of objects or colors, writing or name writing, phonological memory, and phonological awareness, of this phonological awareness-awareness of the sound structure of words, is the strongest (Kenner et al.,2017).

### **Phonological Awareness**

Phonology is the domain of language that pertains to the elements of speech or the abstract mental representations and their actual spoken output and the systems that govern the structural relationships among these elements within and across words (Scarborough & Brady, 2002). The components of the phonological system that describe and govern the internal structure of words are important when discussing literacy (Scarborough & Brady, 2002). Scarborough & Brady (2002) stated that knowing these terms is important because they describe the phonological units that have been studied most often in research on literacy and are the focus of many instructional activities.

In a pure form, phonological awareness tasks do not involve print and phonological awareness tasks require a child to analyze, make judgments about or manipulate sounds in spoken words (Schuele & Boudreau, 2008). Phonological awareness tasks can be broadly categorized by performance types, including rhyming, matching, blending, segmenting, or manipulating sounds, and by phonological units (Choi et al., 2017). At its simplest level, phonological awareness manifests as the ability to attend to and make judgments about the general sound structure of language (Schuele & Boudreau, 2008). Schuele & Boudreau (2008) further stated that dividing words into syllables, identifying and generating rhymes, and matching words with the same beginning sound are considered simple phonological awareness tasks indicative of

shallow-level knowledge. At the complex or deep level, the ability to isolate and manipulate individual sounds or phonemes is involved and skills at this level are called phonemic awareness (Schuele & Boudreau, 2008). Phonemic awareness is part of a hierarchy of meta-linguistic skills that begin with the conscious awareness that sentences are made up of words and culminates in an awareness that words are made up of phonemes, those small units of sound that roughly correspond to individual letters (Snider, 1997). Phonemic awareness, the phonological form of the spoken word is the foundation that children need to learn to read an alphabetic language (Gough, 1996).

Longitudinal studies of reading acquisition have demonstrated that the acquisition of phonemic awareness is highly predictive of success in learning to read, in particular in predicting success in learning to decode (International Reading Association, 1998). The International Reading Association (1998) further stated that phonemic awareness abilities in kindergarten or in that age range appear to be the best single predictor of successful reading acquisition. Morris et al., (2003) stated that the prevalent view is that there is a reciprocal or interactive relationship between phoneme awareness and early reading skills. Phoneme awareness performance is a strong predictor of long-term reading and spelling success, and it can predict literacy performance more accurately than variables such as intelligence, vocabulary knowledge and socioeconomic status (Gillon, 2018). The phonological linkage hypothesis has important implications for our understanding of the way children learn to read and has important educational implications (Hatcher et al., 1994). The ability to predict which children in kindergarten will experience difficulty with reading and spelling has tremendous social, economic, and educational value (Gillon, 2018). Identifying young children who may be at risk for reading and spelling

problems holds the promise of intervention to facilitate more successful educational outcomes than these children may otherwise encounter and has therefore received much deserved attention in the research literature (Gillon, 2018). Bryant et al., (1990) stated that two facts about children's phonological skills have been established beyond any doubt in the literature, first there is a definite development in children's phonological skills and there is a striking relation between children's phonological skills and their success in reading. The better children are at detecting syllables, rhymes, or phonemes, the quicker and more successful will be their progress with reading (Bryant et al., 1990). Phonological awareness generally emerges in a developmental sequence from awareness of larger units, such as syllables and onset-rimes to awareness of individual phonemes in words (Gillon, 2018). A more robust understanding of the developmental trajectory of and mechanism of underlying phonemic awareness could allow us to view reading readiness through a more developmentally appropriate lens in both research and practice settings (Kenner et al., 2017).

### **Phonological Awareness Development**

Gillon (2018) stated that well-established importance of phonological awareness to reading and spelling acquisition necessitates a careful understanding of how children develop an explicit awareness of word sound structure and the knowledge of factors that influence phonological development. Children first learn about the sound structure of language as a result of their biological predisposition to acquire a spoken communication system and the perception of speech sounds from infancy occurs at an unconscious level (Gillon, 2018). Phonological awareness requires children to make explicit the knowledge they have gained about the sound structure of spoken words and to consciously reflect

upon elements of spoken language in a manner that is separate from word meaning (Mattingly, 1972 as cited in Gillon, 2018). Across prevailing models of phonological awareness, phonological awareness is conceptualized as originating at the word level with incremental and increasing sensitivity to smaller units of sound discrimination with age i.e., from word awareness, to syllable and or rhyme awareness and finally at the level of individual phoneme (Kenner et al.,2017). Lonigan et al., (1998) suggested that the lower levels of phonological sensitivity (i.e., syllables) are developmental precursors to higher levels of phonological sensitivity (i.e., phonemes). At the simplest level, phonological awareness manifests as the ability to attend to and make judgments about the general sound structure of language such as dividing words into syllables, identifying and generating rhymes, and matching words with the same beginning sound are considered phonological awareness tasks indicative of shallow level of knowledge (Schuele & Bourdeau, 2008). Schuele & Boudreau (2008) further stated that at the deeper level of phonological awareness is the ability to isolate and manipulate individual sounds or phonemes and this level is linked causally to early word decoding skills. A developmental progression of phonological awareness from larger units in words to awareness of smaller units has been confirmed through research (Gillon, 2018). Gillon (2018) stated that phonological awareness generally emerges in a developmental sequence from awareness of larger units, such as syllables and onset-rimes, to awareness of individual phonemes in words. The sequence of phonological and phonemic awareness instruction and intervention begins with less complex tasks beginning with dividing words into syllables, rhyming, and alliteration of initial and final sounds, and progress to tasks with increasing complexity such as onset-rime segmentation, segmenting of initial

and final sounds, blending sounds into words, segmenting words into sounds and deleting and manipulating phonemes (Schule & Boudreau, 2008). Lonigan et al. (1998) indicated that as children increase in age, their performance both increases in absolute level and becomes more stable across situations in which phonological sensitivity is required. Children two and three years of age demonstrated phonological sensitivity at all levels of linguistic complexity with accelerated growth in phonological sensitivity tasks of rhyme detection, alliteration oddity, blending of letters to form words, and blending of words to form a compound word in older groups (Lonigan et al., 1998). Emerging phonemic awareness capacities are evident prior to the age of four, and these emerging abilities follow a predicted developmental progress of success when using more developmentally appropriate receptive phoneme awareness measures (Kenner et al., 2017). Kenner et al. (2017) further stated that even the smallest units of phonological discrimination are available early on, and developmental progress reflects increasingly more explicit and fluid awareness manifestations across a broader range of tasks and contexts rather than a shift in units of analysis over time. At a group level, stability in phonological awareness performance is not evident in children younger than four years, although some two and three-year-old children can demonstrate phonological awareness knowledge (Gillon, 2018). Anthony et al., (2003) found in their study that children generally mastered word-level skills before they mastered syllable-level skills, syllable-level skills before onset/rime-level skills, and onset/rime-level skills before phoneme-level skills, controlling for task complexity. Mastery of the earlier emerging skills was not necessary for achieving at least moderate amounts of the subsequent skill (Anthony et al., 2003). Researchers such as MacLean, & Crossland; Goswami & Bryant; Wood & Terrell have

demonstrated that rhyme awareness in preschool can predict reading and spelling performances in early childhood years (Gillon, 2018). Lonigan et al., (1998) noted that phonological sensitivity at both higher and lower levels of linguistic complexity i.e., syllables, onset-rime, phonemes was related to text reading ability, and the association between phonological sensitivity was not due to general language skills or letter knowledge. There is evidence of links between children's early phonological skills, particularly their sensitivity to rhyme and alliteration and their eventual progress in reading (Bryant et al., 1990). Rhyme and alliteration contribute to reading in at least two ways. Sensitivity to rhyme and alliteration are developmental precursors of phoneme detection which in turn, plays a considerable role in learning to read (Bryant et al.,1990). Sensitivity to rhyme also makes a direct contribution to reading, probably by helping children to group words with common spelling patterns (Bryant et al.,1990). Developing sensitivity at the onset-rime level during the preschool period promotes awareness at the phoneme level in young school-age children, that is, onset-rime awareness may be a developmental precursor to phoneme awareness (Gillon, 2018). Phonological awareness is a segmental phonology skill, referring to the awareness of separable sound units in speech and the ability to manipulate them (Veenendaal, et al., 2015). Focusing early phonemic awareness instruction on blending, segmenting, and manipulating phonemes has been shown to produce greater improvement in phonemic awareness and future reading achievement in young children than time spent in rhyming and alliteration (Reutzel, 2015). Reutzel (2015) further expressed that it is not to suggest that early childhood educators totally abandon rhyme and alliteration activities but rather it is to point out the transitory value of these activities in relation to the more sustained outcomes

associated with phonemic awareness instruction focused on phoneme-level activities. A conscious awareness of sounds may seem unnecessary to the casual observer, but phonemic awareness forms a bridge that enables naïve readers to translate the squiggles on the page into the spoken language they already know (Snider, 1997). The connection is also made in the minds of young students who are trying to align the two systems as they build on their oral language skills to learn to read and write. (Scarborough & Brady, 2002).

### **Phonological Awareness Relation to Reading Acquisition**

Unlike spoken language, reading does not unfold naturally as the child grows and matures (Berg & Stegelman, 2003). Berg & Stegelman (2003) further stated that reading is not developmental; rather, it is learned. A longitudinal study of the reading development of 54 children in first through fourth grades showed that children who became poor readers entered first grade with little phonemic awareness (Juel, 1988). Juel (1988) further stated that although their phonemic awareness steadily increased in first grade, they left this grade with a little less phonemic awareness than that which the children who became average or good readers possessed upon entering first grade.

The understanding that spoken language consists of individual sounds or phonemes contributes to success with phonics (Berg & Stegelman, 2003). Berg & Stegelman (2003) noted that in order to master phonics, children must grasp the alphabetic principle and there is a predictable relationship between the sounds of language and the letters used to represent those sounds. Complete and total mastery of all alphabet letters is a universal prerequisite in order for students to make progress in reading and writing (Reutzel, 2015). In principle, if a child does not appreciate that

spoken words can be broken up into smaller components not just syllables and sub-syllabic units (onsets, rimes) but also phonemic segments then it would be extremely difficult for the child to grasp the “alphabetic principle”, that a correspondence exists between the string of letters that make up a printed word and the sequence of phonemes in the spoken word form (Scarborough et al., 1998). Three of the top strong and consistent predictors found to be most important for later development of literacy skills such as decoding, oral reading fluency, reading comprehension, writing, and spelling are knowing the names of printed letters, e.g. being able to label letters correctly, e.g. that ‘F’ is the letter called “eff”; knowing sounds associated with printed letters e.g. understanding that the sound /f/ goes with the letter ‘F’ or knowing that the letters ‘at’ at the end of words are pronounced “aah-tuh” and being able to manipulate the sounds of spoken language, breaking apart into smaller sound units such as syllable or phonemes, adding or deleting sounds units (National Early Literacy Panel, 2009). Knowledge about letters, their shape, their names, and their linguistic functions plays an important role in the development of reading and spelling (Sanchez et al., 2012). Sanchez et al., (2012) further noted that phonological knowledge is implied in the ability to perceive and manipulate sounds of spoken words and is considered fundamental because, even though one-to-one correspondences do not always exist, graphemes i.e., letters or groups of letters are mostly representative of phonemes in the alphabetic systems. Phonological awareness, together with letter-sound knowledge allows for the initial successful decoding attempts of printed words on which visual and orthographic processing are dependent (Gillon, 2018). Shapiro & Solity (2008), stated that regardless of whether children develop an awareness of phonemes first, or rhymes first, there is good evidence



that grapheme-phoneme correspondence are the most useful for learning to read. In a study of the role of phonological representation in decoding skills of young readers conducted by Hester & Hodson (2004), the findings indicated a persistent primary role for strong phonological representation in reading decoding in American children at the 3<sup>rd</sup> grade level. In a longitudinal study conducted by Sparks et al., (2013), early success in word decoding, a critical skill for reading comprehension, predicted growth decoding skills throughout elementary school, and word decoding in 5<sup>th</sup> grade predicted both reading and language ability in tenth grade. In a longitudinal study conducted by Badian (1995) letter naming itself was a significant predictor of first-grade phonemic awareness, but unlike letter naming, the first-grade phonemic awareness tasks were most strongly associated with reading in the early grades. Compton (2002) noted that compared to typically achieving age-matched peers, the children with reading disabilities have underdeveloped orthographic lexicons, much less experience with print and inferior phonological and orthographic processing abilities. Although many abilities are ultimately important in learning to read, abilities involved in word recognition are especially important in the early elementary grades, when word recognition skill is developing most rapidly, and the comprehension demands of most texts are relatively low (Spear-Swerling, 2007 as cited in *The Research-Practice Divide in Beginning Reading, Theory into Practice*, 2007). Badian (1995) noted that in a longitudinal study that the preschool orthographic tasks exerted its strongest effects on sixth-grade reading suggesting that facility in orthographic processing becomes increasingly important as the written text becomes more complex.

The primary thrust of early school instruction is founded on the premise that skills such as letter knowledge, the ability to analyze the sounds of language into discrete units, and the ability to link sounds to symbols can develop rapidly with proper instruction (Dickinson et al., 2010). Dickinson et al., (2010) further stated that improvements in these code skills directly translate into enhanced reading ability. A meta-analysis conducted by the National Reading Panel (2000), found that teaching children to manipulate phonemes in words was highly effective under a variety of teaching conditions with a variety of learners across a range of grade and age levels and that teaching phonemic awareness to children significantly improves their reading more than instruction that lacks any attention to phonemic awareness.

### **Phonological Awareness Instruction**

Understanding how to effectively and efficiently integrate phonological awareness into everyday classroom environments is critical for supporting initiatives that can elevate reading achievement and reduce inequality in reading outcomes (Carson et al., 2013). Phoneme awareness instruction is more effective than alternative forms of instruction or no instruction in helping children acquire phoneme awareness and facilitating transfer of phoneme awareness skills to reading and spelling (Ehri et al., 2001). Explicit instruction requires that the skills and strategies necessary for developing reading competence phonological awareness, word recognition, fluency, vocabulary, comprehension, or for remediation of areas of weakness are taught directly to students (Ritchey, 2011). Ehri et al., (2001) suggested that impact of phonological awareness may be greatest in preschool and kindergarten and may become smaller beyond first grade. In terms of long-term effects of intervention type and its likely

transfer to broader construct of reading comprehension, a meta-analysis conducted by Suggate (2016), suggested that preschool and kindergarten interventions should target phonemic awareness alone, leaving decoding skills to Grades 1 and 2. A meta-analysis of experimental training studies conducted by Bus & Ijzendoorn (1999) suggested that gains are more consistent and robust when phonological awareness has been trained together with letter-sound correspondence. Bus & Ijzendoorn (1999) further noted that phonological awareness training indeed stimulates reading skills, but it is not the single strongest predictor, with other resources such as word-specific knowledge of written words or knowledge of the written language register may be important as well. Ball & Blachman (1991) noted that phoneme awareness instruction combined with instruction connecting phonemic segments to alphabet letters, significantly improved the early reading and spelling skills of the children who received phoneme awareness training in correspondence with training in letter names and letter sounds. Sounds are ephemeral, short-lived, and hard to grasp, whereas letters provide concrete, visible symbols for phonemes, thus we might expect children to have an easier time acquiring phonological awareness when they are given letters to manipulate (Ehri et al., 2001). Most researchers caution practitioners that phonological awareness intervention should be implemented as part of a comprehensive program in literacy instruction or in early literacy experiences (Gillon, 2018). Gillon further stated that phonological awareness intervention must be seen in perspective with the host of other language experiences, such as shared book reading, alphabetic instruction, storytelling, and involvement in meaningful reading and writing activities. One must consider, as well, the contribution of oral language development such as vocabulary, syntactic and morphological skills in written language

development. Deacon (2012) found that morphological, phonological, and orthographic processing skills make an independent contribution to reading outcomes though they are not equal in their contribution with phonological awareness making a significant independent contribution to real and pseudoword reading across grades one and three. For children who experience reading difficulty and phonology intervention appears insufficient, it may be necessary to consider the potential contributions of other skills to students' word identification, spelling, vocabulary, and reading comprehension abilities (Reed, 2008). Reed (2008) further stated that because English is a morphophonemic language in that words are represented in both units of sound (phonemes) and units of meaning (morphemes), it would be reasonable to expect that morphological awareness would play a role distinct from that of phonological awareness when it is aligned to the student's reading development and includes root words. Ongoing cognitive and language development and the increasing influence of instruction change the relations between narrative comprehension measures, memory, vocabulary, and phoneme awareness in complex ways (Stahl & Yaden, 2004). When considering phonological awareness Gillon (2018) suggested that the following needs to be considered: Phonological awareness intervention should be integrated with letter-sound knowledge and should make explicit the links between speech and print; phonological awareness intervention should focus on the development of skills at the phoneme level for school-age children; instruction may involve a skill mastery approach or an integrated or multiple-skill approach; an individual or small-group model of service delivery may be necessary to ensure success for children with significant difficulties; flexibility in program implementation is required and phonological awareness intervention is most effective after a period of general language

instruction. Kindergarten children can indeed be taught phonological awareness by their classroom teachers and that combining phonological awareness training with decoding instruction and practice strengthens beginning reading performance more so than phonological awareness training alone (Fuchs et al., 2001). The intensity of phonological instruction is important when designing phonological awareness intervention (Gillon, 2018). Decisions about the use of time, the pace of instruction, the way the curriculum is structured and delivered, the way students progress through curriculum, and the way students are grouped for instruction can affect basic skill outcomes (Bickel & Bickel, 1986). Three keys for the prevention of reading disabilities or delays are the timing of instruction, with instruction beginning in kindergarten, the content of instruction focused heavily on phonological awareness, alphabetic understanding and fluency of critical skills, and the quality of the instruction, instructional design, and delivery with sufficient intensity to help students reach thresholds of skill and understanding by the end of kindergarten (Smith et al., 2001). Smith et al., (2001) noted that sufficient intensity includes duration, frequency, explicitness of instruction, the attention to instructional details that may cause confusion, and the appropriateness of instructional activities. Ehri et al., (2001) noted in a meta-analysis of controlled experiments that phonemic awareness instruction delivered in small groups boosted reading and spelling performance more than tutoring or classroom and that phonemic awareness instruction between 5 to 18 hours was effective for teaching phonemic awareness. Ehri et al., (2001) however caution interpreting results as extenuating circumstances such as the goals of instruction might have been more complex in programs lasting longer, students may have been harder to teach or may depend upon the goals of instruction, the number of phoneme skills being

taught, whether letters are included and how much or how little learners already knew about phonemic awareness when they began. In the meta-analysis, Ehri et al., (2001) noted that instructional sessions should not be more than 30 minutes in length. Children who received instruction focused on only one or two phonemic awareness skills for example segmenting words into phonemes or segmenting and blending phonemes exhibited stronger phonemic awareness and transfer to reading than children who were taught three or more phonemic awareness skills (Ehri et al., 2001). Carson et al., (2013) noted that a majority of evidence supporting the benefits of phonological awareness instruction comes from studies that have been conducted in individual or small-group frameworks under controlled research settings. In a study conducted by McIntosh, et al., (2007) preschool age children from low SES backgrounds who received a short 10-week period of high-intensity phonological awareness instruction involving syllable segmentation, rhyme identification, and generation, and initial sound identification within a planned curriculum demonstrated significant enhancement of skills initially but was not sustainable in early grades. Shapiro & Solity (2008) investigated whether implementing phonological awareness and phonics training focused on the most useful and generalizable skills first, even if developmentally they are acquired after skills that appear easier within whole class mixed ability lessons can impact children at risk of developing reading difficulties as well as raising attainments for normal developing children. Delivering short, frequent whole-class sessions that included focused phonological awareness of synthesis and segmentation, phonics, sight vocabulary, and reading real books to and with children can have a significant impact on the reading development of children with poor phonological skills (Shapiro & Solity, 2008). Justice et al., (2010)

Read It Again study involved a 30-week language and literacy curriculum supplement consisting of 60 separate lesson plans with activities organized around a whole-class group storybook reading interaction, including two of four instructional domains of vocabulary, narrative, print knowledge and phonological awareness increasing in complexity and difficulty over time and lessons built on prior knowledge. The results indicated that children in classrooms using the Read it Again curriculum supplement demonstrated significantly higher end-of-year scores in language and emergent literacy skills than did children in classrooms implementing business-as-usual curricula. In a study conducted by Carson et al., (2013) children who received teacher directed classroom phonological awareness instruction performed significantly higher on the end-of-the-year reading and spelling measures compared to children who continued with the usual classroom reading program, with 5.88% of children at 6 years of age who received phonological awareness instruction performed below the age expected level in word decoding ability compared to 26.32% of the children who did not receive the phonological awareness instruction. As well, Carson et al., (2013) noted that after one year of school 5.88% of the children who received phonological instruction compared to 31.58% of the children who continued with the usual curriculum performed below the age-expected level in reading comprehension, representing a 20% reduction in the number of children presenting with reading difficulties to include a short-term focus on phonological awareness. At its core, the first tier learning environment must provide protected time for literacy instruction (Justice, 2006). Justice (2006) noted that though literacy instruction in preschool and kindergarten classrooms may be emphasized throughout the day protected time for large and small group literacy instruction is needed

to ensure systematic attention to high priority reading targets. In beginning reading, few educational practices have garnered as much evidence as the use of systematic, explicit instruction (Nelson et al., 2013).

### **Instruction**

An explicit instructional move is defined as specific, discrete instruction, elements, or actions provided to a teacher in the core reading program teachers' edition lesson on how to teach a particular reading task, skill, strategy, content, or concept (Ruetzel et al., 2014).

If phonological and phonics training could be incorporated into children's normal whole class teaching, the need for supplementary phonological training would be minimized, creating savings and time and resources, and allowing space for alternative activities (Shapiro & Solity, 2008). Shapiro & Solity (2008) further emphasized that a whole-class phonological intervention could potentially allow a more rigorous analysis of the causes of literacy difficulties and offer new theoretical insights into the nature of difficulties experienced by lower achieving pupils.

Phonological awareness has been established as one of the prerequisites for reading acquisition, phonological awareness instruction, therefore, is obligatory, not optional (Simmons & Kame'enui 1998). The National Center to Improve the Tools of Educators identified six principles that transverse a range of academic contents and capture the distinct and critical features of academic domains: big ideas, mediated scaffolding, conspicuous strategies, strategic integration, primed background knowledge, and judicious review (Dixon et al., 1992 as reported in Simmons & Kame'enui 1998). This framework of curriculum principles when applied to beginning reading instruction



refers to a set of unifying curriculum activities necessary for successful beginning reading or the big idea (Coyne et al., 2011). Coyne et al., (2011), stated that the following big ideas, phonological awareness, alphabetic understanding and automaticity with the code or the ability to translate letters to sounds and sounds to words fluently, should serve as a “minimum” framework for beginning reading instruction. For instructional priorities of phonological awareness, instruction needs to be explicit, not left to either natural development in the absence of instruction or inference by the learner during instruction (Simmons & Kame’enui, 1998). Simmons & Kame’enui (1998) noted that a characteristic feature of explicit instruction is the use of conspicuous strategies. Conspicuous strategies are sequences of teaching events and teacher actions that make explicit the steps required to hear and manipulate sounds (Dixon et al., 1992) as cited in Simmons & Kame’enui 1998). Phonological awareness and alphabetic understanding are learned concepts and therefore instruction must make all strategies conspicuous by explicitly teaching them in a manner that is systematic and sequential (Coyne et al., 2011). Teaching children to read in kindergarten is generally most successful with systematic and structured instructional programs that promote the acquisition of phonological awareness, the alphabetic principle as well as contextualized reading activities (Cassady & Smith, 2003). The principle of mediated scaffolding refers to the external support provided by the teacher, tasks, and materials during initial learning of sounds and strategies for consciously hearing and manipulating sounds (Simmons & Kame’enui, 1998). Task scaffolding can be mediated by attending to the continuum of difficulty for phonological awareness dimensions in designing the scope and sequence of instruction and providing sufficient instruction and practice for more difficult dimensions

that are directly related to reading acquisition (Simmons & Kame'enui, 1998). Instruction should begin with easy tasks and systematically progress to more difficult ones as phonological awareness tasks that deal with larger linguistic units are easier for learners to process than smaller units (Coyne et al., 2011). Additional task scaffolding includes introducing manageable amounts of information in a lesson and the purposeful separation of highly similar and potentially confusing concepts (Coyne et al., 2011). The principle of mediated scaffolding is particularly important to students who may not profit from traditionally sequenced and structured curricula (Coyne et al., 2011). Strategic integration involves the logical and purposeful connection between skills and strategies with purposeful connection of prerequisite skills to develop more sophisticated applications to higher-order skills (Coyne et al., 2011). Coyne et al., (2011) noted that identifying words in connected text requires that a reader integrate phonological awareness, alphabetic understanding, and automaticity with the code. Successful reading acquisition depends largely upon the knowledge the learner brings to the reading task, the accuracy of information, and the degree to which the learner access and uses that information (Coyne et al., 2011). Primed background knowledge or priming is a brief reminder that alerts the learner to the requirements of a task and prompts the learner to retrieve known information and is a system for activating and linking previously learned skills to advanced application so that it increases the likelihood that students will be successful on tasks by making explicit the critical features (Coyne et al., 2011). Effective beginning reading instruction depends on the design principle, judicious review, to reinforce the essential building blocks of phonological awareness, alphabetic understanding, and automaticity with the code (Coyne et al., 2011). Judicious review suggests a schedule of

massed, cumulative, and varied review opportunities that are distributed throughout the program (Wanzek et al., 2000). Decisions as to what to review, how often, and when depend to a large extent on exactly what has been taught, how often, and when, and on the particular outcome desired (Coyne et al., 2011). To get beyond the starting point in reading acquisition, attention to the design principle of judicious review is pivotal (Simmons & Kame'enui, 1998). Phonological awareness is promoted by attending to instructional design variables such as conspicuous strategies to facilitate awareness and use of scaffolding across a continuum of tasks (Smith et al., 2001). In over 100 sources reviewed 70% were primary studies that found significant relations between phonological awareness and reading (Simmons & Kame'enui 1998). Simmons & Kame'enui, (1998) noted that phonological awareness was taught, it was not left to develop in the absence of explicit instruction. Understanding how to effectively and efficiently integrate phonological instruction into everyday classroom environments is critical for supporting initiatives that aim to elevate reading achievement and reduce inequality in reading outcomes (Carson et al., 2013).

With the vast body of research that demonstrates the powerful relationship between phonological awareness and literacy development, one would expect that integration of this knowledge would be evident in core reading programs used in today's kindergarten classrooms. The degree to which current core reading program teachers' editions incorporate phonological awareness instruction that is cognizant of timing, intensity, duration, scope, and sequence as well as incorporates instructional design principles is worth investigating.

## **CHAPTER 3**

### **METHODOLOGY**

#### **Purpose**

The purpose of this pragmatic content analysis is to explore and analyze phonological awareness components of a teacher edition of a local school district's kindergarten core language arts curriculum material. A pragmatic content analysis as a research approach is a systematic way to identify the congruence between research and practice. Understanding how to integrate phonological awareness effectively and efficiently in everyday classroom environments is critical for supporting initiatives that can elevate reading achievement and reduce inequality in reading outcomes (Carson et al., 2013).

One explanation among many for the lower reading performance of students with disabilities, even after instruction in phonological awareness, may be the phonological awareness curriculum (Wanzek et.al., 2000). Wanzek et.al., (2000) further stated that the curriculum may lack the systematically designed and delivered instruction and practice, monitored participation and scaffolding students with disabilities may require. For instructional priorities of phonological awareness, instruction needs to be explicit, not left to either natural development in the absence of instruction or inference by the learner during instruction (Simmons & Kame'enui, 1998).

#### **Research Design**

This research approach is representative of the philosophical tradition of pragmatism as it contends that what we know about the significance of phonological awareness in the acquisition of literacy development is indeed evident in the instructional

practices of teachers. Is what is known about phonological awareness development and instruction evident in the kindergarten classroom curriculum and everyday practice?

Essentially linking theory to practice and in turn, informing practice. A pragmatic approach was chosen as this qualitative research focuses on a single language arts curriculum, rather than multiple core language arts curriculum. This allows for a more in-depth analysis of the entire year of phonological awareness instruction and lessons and in turn answers the question about the type, occurrence, scope, and sequence of phonological awareness components in lessons of the kindergarten curriculum.

### **Research Question**

What type and occurrence of phonological awareness components are evident in the teacher edition of a local school district's kindergarten core language arts curriculum material?

### **Profile of Data Collection and Analysis**

To determine the extent of phonological awareness components the primary instructional activities designated by the publishers as phonological and phonemic awareness will be studied. The local school district kindergarten language arts program, Wonders draws upon decades of literacy research, and the expertise of preeminent reading researchers and was built to deliver high-quality literacy instruction, supported by the science of reading and the key pillars that need to be addressed in literacy programs (McGraw-Hill Education, 2022). Wonders presents a sequence of research-aligned learning activities in its grade-level placements, sequences of instruction, and instructional guidance across phonemic awareness, phonics, decoding, and text reading fluency (McGraw-Hill Education, 2022).

A descriptive coding system was developed to examine the type, occurrence, scope, and sequence of phonological awareness components and the magnitude of phonological awareness components. The steps involved in the coding process include a review of the 11 language arts curriculum units, tracking phonological awareness lessons noted in the weekly planner by recording the week, and determining the phonological and or phonemic awareness focus of the lesson.

### **Summary**

Chapter 3 presented the philosophical stance that informed the pragmatic qualitative research approach used to guide the purpose, question, and content analysis study approach to this research design. A profile of data collection and analysis was proposed with a descriptive coding system developed to examine the type, occurrence, scope, and sequence of phonological awareness components in 11 units of a kindergarten language arts curriculum.

## CHAPTER 4

### ANALYSIS AND FINDINGS

The purpose of this pragmatic content analysis was to explore and analyze phonological awareness components of a teacher edition of a local school district's kindergarten core language arts curriculum material. This chapter begins with a description of the phonological awareness framework and then the analysis of the data as it connects to the research question.

#### **Data Source**

To determine the extent of phonological awareness components the primary instructional activities designated by the publishers as phonological and phonemic awareness of a local school district kindergarten language arts program Wonders was studied. Wonders presents a sequence of research-aligned learning activities in its grade-level placements, sequences of instruction and instructional guidance across phonemic awareness, phonics, decoding, and text reading fluency (McGraw-Hill Education, 2022). The daily lessons the publisher designated as phonological or phonemic awareness were five minutes in length with whole group instruction. Weekly and unit assessments were noted in the weekly planner allowing for the differentiation of instruction of foundational skills in a small group format. The whole group lessons often used a puppet as an instructional prop during the introduction of a phonological or phonemic awareness skill.

A descriptive coding system was developed to examine the type, occurrence, scope, sequence, and magnitude of phonological awareness components. The steps involved in the coding process included a review of the eleven language arts curriculum units, tracking phonological and phonemic awareness lessons designated by the publisher

in the weekly planner, recording the week and day, then coding the phonological and phonemic awareness components.

The framework of the phonological awareness sequence of instruction and intervention of Schuele & Boudreau (2008) was used to determine the extent of phonological awareness components identified in the kindergarten language arts curriculum. The observed components from the curriculum were coded according to the sequence of phonological awareness instruction and intervention as presented in the framework noting the components ranging from less complex to more complex skills.

### **Analysis of Research Question**

#### **Research Question**

What type and occurrence of phonological awareness components are evident in the lessons in the teacher edition of a local school district's kindergarten core language arts curriculum?

#### **Results**

Charts were generated to show the number of phonological and phonemic awareness components present and repeated across the instructional units. The phonological and phonemic awareness lessons were then coded to the framework of the sequence of phonological and phonemic awareness instruction and intervention (Schuele & Boudreau, 2008).



Figure 2.

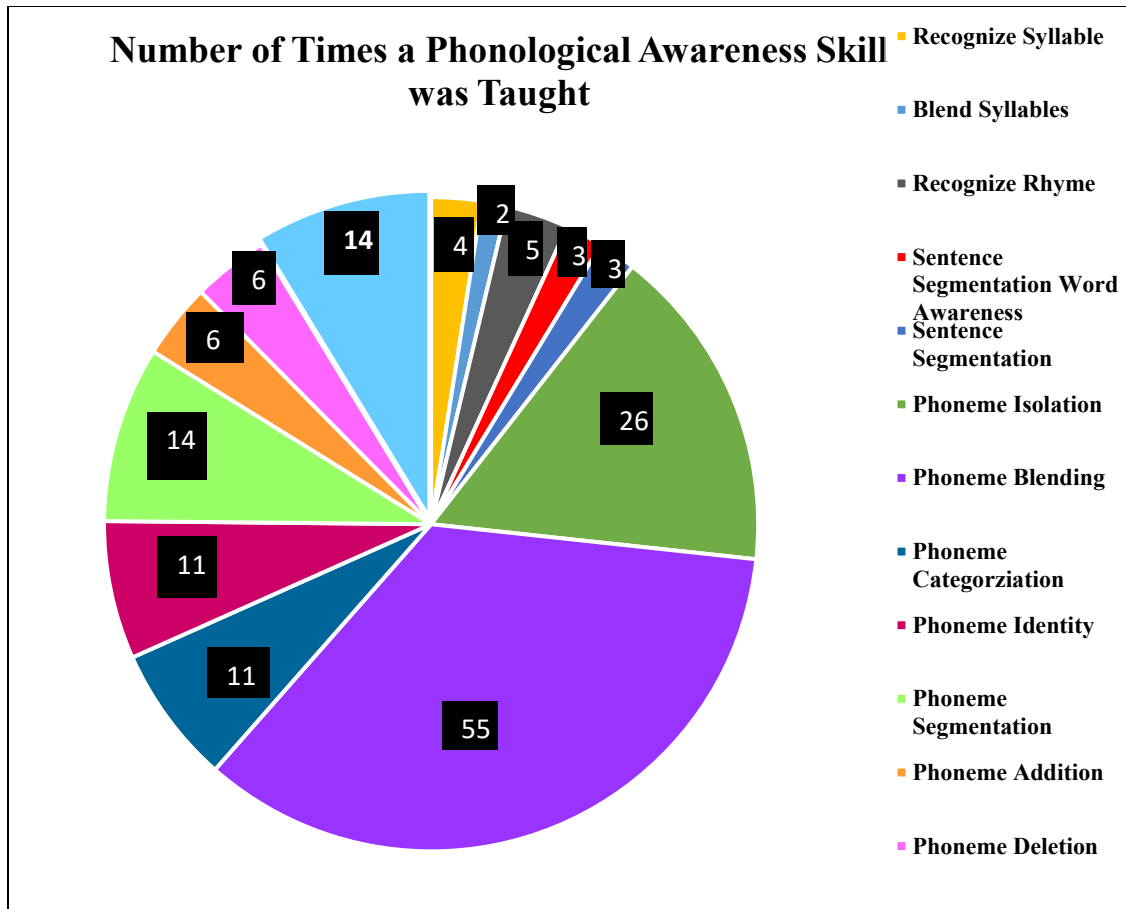


Figure 2 illustrates the number of times a phonological or phonemic awareness skill was taught across the school year.

**Phoneme Blending.** Phoneme blending the ability to hear individual sounds in a word, say the sounds and blend or put together to say a word, was the phonemic awareness skill taught most across instructional units. For example, a phoneme blending lesson in the teacher edition of the language arts curriculum would be, (1) Model Use the puppet to demonstrate how to blend phonemes to make words. The puppet is going to say sounds in a word, /h/ /i/ /p/ /ō/. It can blend those sounds to make a word: /hipō/, hippo. When the puppet blends the sounds together, it makes the word hippo. Listen as the

puppet blends more sounds to make a word. Model phoneme blending with the following words. /h/ /i/ /p/, hip /h/ /ou/, how /h/ /a/ /d/, had (2) Guided Practice/Practice Tell children to listen as the puppet says the sounds in words. Have them repeat the sounds, and then blend them to say the word. /h/ /a/ /t/, hat /h/ /o/ /t/, hot /h/ /e/ /n/, hen /h/ /i/ /m/, him /h/ /e/ /d/, head /h/ /a/ /z/, has (Wonders Unit 5 Week 1 Day 2).

**Phoneme Isolation.** Phoneme isolation, the ability to identify specific phonemes in words was the next most common phonemic awareness skill taught. For example, a phoneme isolation lesson in the teacher edition of the language arts curriculum would be, Today we are going to learn a new sound. Listen for the sound at the beginning of hippo. Hippo has the /h/ sound at the beginning. Say the sound with me: /h/. Say had, hot, heat and have children repeat. Emphasize /h/ (Wonders Unit 5 Week 1 Day 1).

**Phoneme Substitution.** Phoneme substitution the ability to manipulate spoken words by substituting certain phonemes for others was the third most taught phonological phonemic awareness skill. For example, a phoneme substitution lesson in the teacher edition of the language arts curriculum would be, (1) Model Use the puppet to model phoneme substitution. The puppet can change the ending sound in words to make new words. Listen to this word: fin. Fin has the /n/ sound at the end. Now listen as the puppet changes /n/ in fin to /t/: fit. Repeat with pan/pat. (2) Guided Practice/Practice Have children follow directions to make new words. Give them ample time to respond. Guide practice with the first word. Say vat. Change /t/ to /n/. What word do you have? (van) Say man. Change /n/ to /p/. What word do you have? (map) Say bat. Change /t/ to /k/. What word do you have? (back) Say sleeve. Change /v/ to /p/. What word do you have? (sleep) (Wonders Unit 5 Week 3 Day 5).

**Phoneme Segmentation.** Phoneme segmentation, the ability to break words down into individual phonemes (sounds) was the third most, equally with phoneme substitution, phonemic awareness skill taught. For example, a phoneme segmentation lesson in the teacher edition of the language arts curriculum would be, Model Use the Sound Boxes and markers. Listen to this word: kit. There are three sounds in kit. Say the sounds in kit with me: /k/ /i/ /t/. Let's place one marker for each sound in the Sound Box: /k/ /i/ /t/. Repeat for pick. (2) Guided Practice/Practice Distribute Sound Boxes and markers. Have children say each sound in the word as they place a marker in a box. Then have them say the word and tell the number of sounds in the word. Guide children with the first word. Ken, /k/ /e/ /n/; sock, /s/ /o/ /k/; Dan, /d/ /a/ /n/; key, /k/ /ē/; keep, /k/ /ē/ /p/ (Wonders Unit 6 Week 2 Day 5).

**Phoneme Categorization.** Phoneme categorization, the ability to identify sounds that match or do not belong in a sequence of words, was the fourth most common phonemic awareness skill taught. For example, a phoneme categorization lesson in the teacher edition of the language arts curriculum would be Model Display Photo Cards for under, up, and jet. Which picture names begin with the same sound? Say the picture names. Under and up both begin with /u/. Jet does not begin with /u/. Jet does not belong. (2) Guided Practice/Practice Show children sets of Photo Cards. Name the pictures with children and have them identify the picture in each set that does not begin with the same sound. Guide children with the first set of words. vest, water, vine jacket, jewelry, zoo October, ink, olive night, moth, nail seal, saw, shore helicopter, watch, hat zipper, goat, girl yolk, yogurt, queen king, quarter, quail (Wonders Unit 8 Week 3 Day 5).

**Phoneme Identity.** Phoneme identity, the ability to recognize common sounds in words was the fourth most, equally with phoneme categorization, was taught. For example, a phoneme identity lesson in the teacher edition of the language arts curriculum would be Model Display the Photo Cards for camera, camel, and car. I will say three picture names: camera, camel, car. Repeat these words with me. Which sound is the same in camera, camel, and car? Camera, camel, and car all begin with /k/. Repeat the activity with carrots, cow, and comb. Listen to these words: carrots, cow, comb. Say the words with me. Which sound is the same in carrots, cow, and comb? Carrots, cow, and comb all begin with the /k/ sound. (2) Guided Practice/Practice Listen to these words. Repeat the words and then say the sound that is the same. Guide children with the first set of words. cat, can, could map, mad, my cow, cup, come inch, it, into cape, coat, count new, now, nickel dog, dish, dip fun, fox, fit goat, get, gift (Wonders Unit 3 Week 3 Day 4). Blending syllables was the least phonological/phonemic awareness skill taught and only represented in introductory Unit 0.

Figure 3.

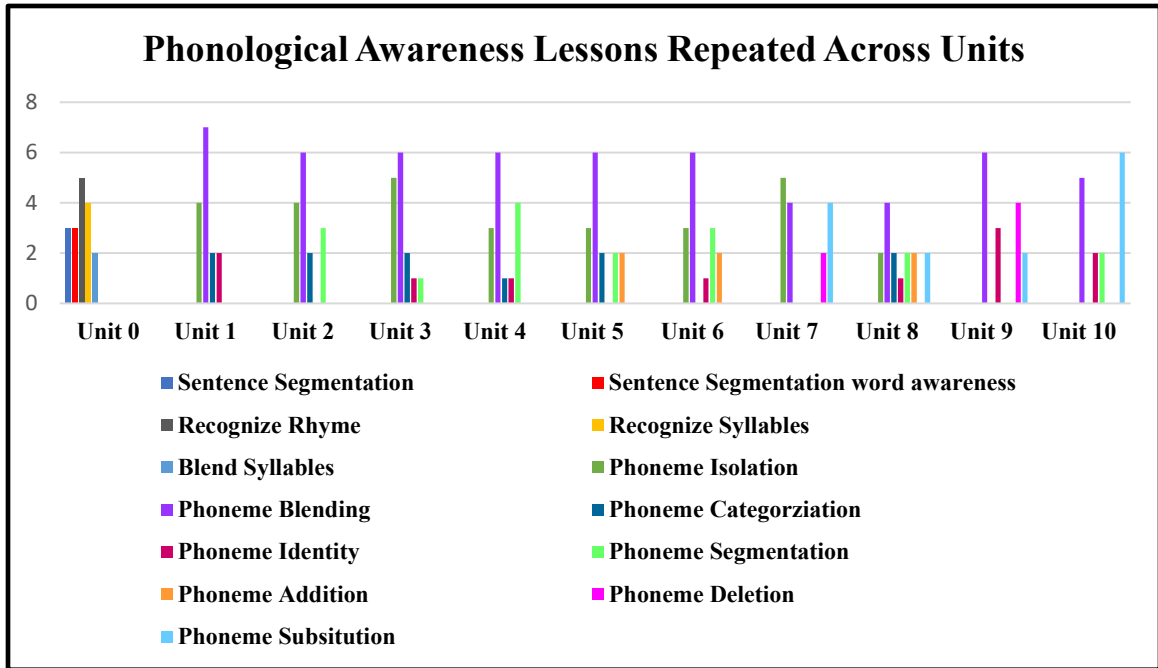
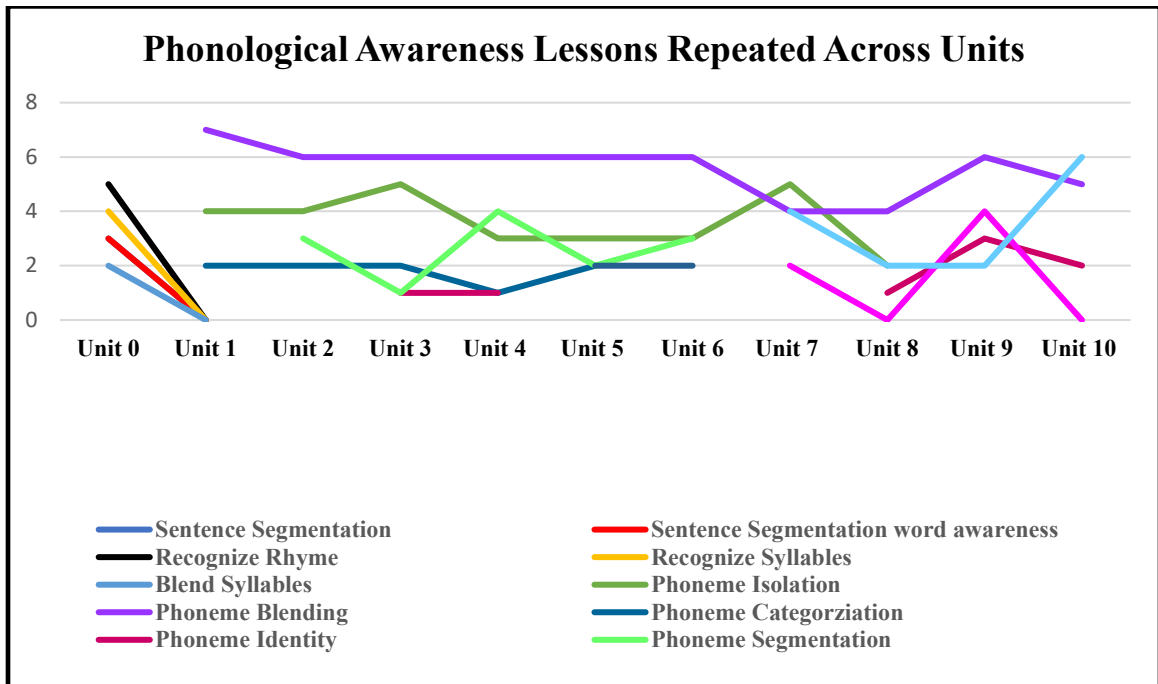


Figure 4.



Judicious review refers to the sequence and schedule of opportunities provided children to apply and develop facility with sounds (Simmons & Kame'enui, 1998).

Specifically, in order for new, unfamiliar information to be remembered effortlessly and accurately, it must be presented frequently, and on numerous occasions (Coyne et.al., 2011). Figures 3 and 4 represent the phonological and phonemic awareness lessons repeated across the eleven instructional units.

**Phoneme Blending.** Phoneme blending the ability to hear individual sounds in a word, say the sounds and blend or put together to say a word, was the phonemic awareness skill taught most across eleven instructional units.

**Phoneme Isolation.** Phoneme isolation, the ability to identify specific phonemes in words was the next most common phonemic awareness skill taught across eleven instructional units.

**Phoneme Categorization.** Phoneme categorization, the ability to identify sounds that match or do not belong in a sequence of words, was the third most common phonemic awareness skill taught in the lessons throughout the instructional units.

**Phoneme Segmentation.** Phoneme segmentation, the ability to break words down into individual phonemes, was the fourth most common phonological, phonemic awareness skill taught through eleven instructional units.

**Phoneme Deletion.** Phoneme deletion, the ability to manipulate spoken words by deleting phonemes, was the least phonemic awareness skill taught in lessons through the eleven instructional units, beyond the phonological awareness skills evident only in Unit 0. Phoneme deletion activities were presented two times in Units 7 and 9. For example, a phoneme deletion lesson in the teacher edition of the language arts curriculum would be, (1) Model The puppet can take sounds away from words to make new words. Listen as it says a word: cup. Say the word with the puppet: cup. Now listen as it says cup without

/k/: up. Say the word: up. Cup without /k/ is up. Repeat with bus/us. (2) Guided Practice/Practice Have children delete initial sounds to make new words. Guide practice with the first word. Say sat. Now say sat without /s/. (at) Say his. Now say his without /h/. (is) Say wax. Now say wax without /w/. (ax) Say train. Now say train without /t/. (rain) Say sand. Now say sand without /s/. (and) (Wonders Unit 7 Week 1 Day 4).

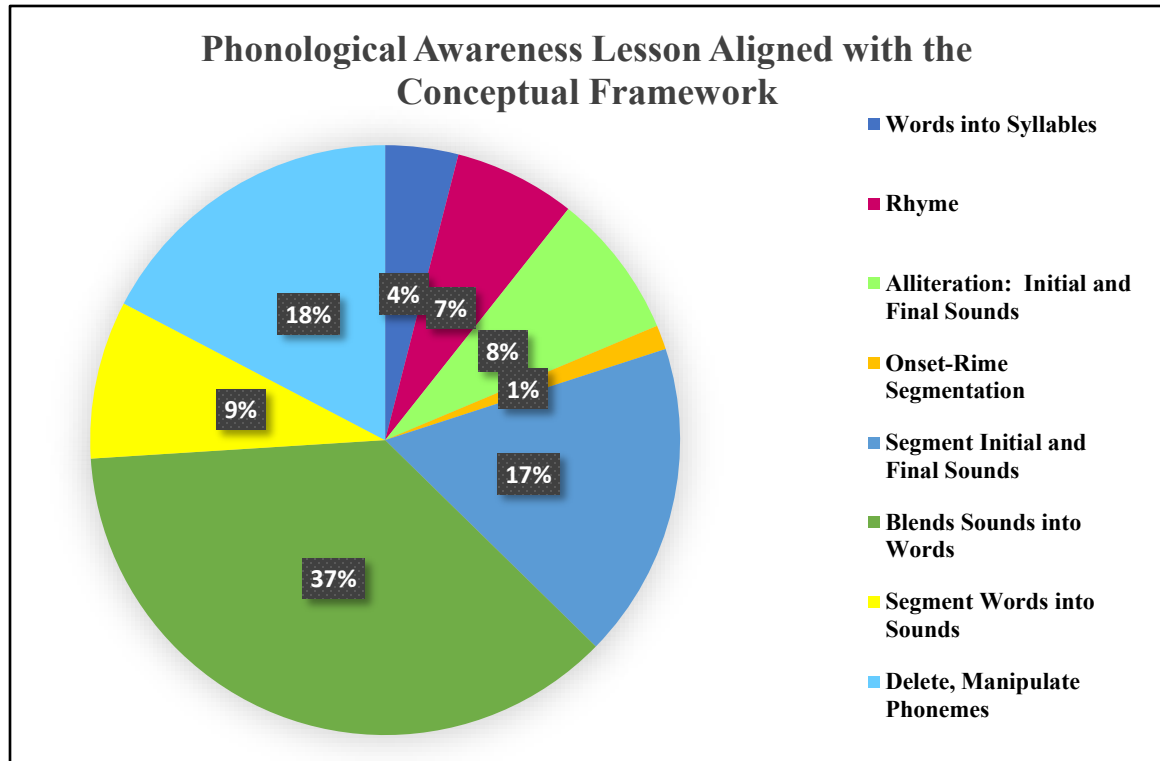
### Alignment with Conceptual Framework

The lessons designated by the publishers as phonological awareness and phonemic awareness were coded based on the conceptual framework of the sequence of phonological instruction and intervention (Schuele & Boudreau (2008).

**Figure 5.**

The Number of Phonological/Phonemic Awareness Instructional Lessons Aligned to Conceptual Framework								
Words into Syllables	Rhyme	Alliteration: Initial and Final Sounds	Onset-Rime Segmentation	Segment Initial and Final Sounds	Blends Sounds into Words	Segment Words into Sounds	Delete, Manipulate Phonemes	Total
6	10	12	2	26	55	13	26	150

Figure 6.



Phonological awareness tasks can be broadly categorized by performance types, including rhyming, matching, blending, segmenting, or manipulating sounds, and by phonological units (Choi et al., 2017). At its simplest level, phonological awareness manifests as the ability to attend to and make judgments about the general sound structure of language (Schuele & Boudreau, 2008). At the complex or deep level, the ability to isolate and manipulate individual sounds or phonemes is involved and skills at this level are called phonemic awareness (Schuele & Boudreau, 2008).

**Blending Sounds into Words.** Blending sounds into words had a frequency count of 55 of the 150 phonological and phonemic awareness lessons or 37% of the skills coded through the curriculum's instructional units. Blending sounds into words is considered a phonemic awareness skill that is a more complex skill.



**Delete, Manipulate Phonemes.** Deleting, manipulating by substitution or addition of phonemes had a frequency count of 26 of 150 lessons or 18% of the phonological/phonemic awareness skills coded through the curriculum's instructional units. Manipulation of phonemes through addition or substitution of phonemes was the phonemic awareness skill that contributed most to this category, as lessons with phoneme deletion were only represented four times across the instructional units. Deletion and manipulation of phonemes is the most complex skill in the framework of the sequence of phonological awareness instruction and intervention.

**Segmenting Initial and Final Sounds.** Segmenting initial and final sounds had a frequency count of 26 of the lessons or 17% of the phonological/phonemic awareness skills coded through the curriculum's instructional units. Instruction of segmenting initial and final sounds is considered a phonemic awareness skill and would be taught prior to the phonemic skills of blending, segmenting words into sounds and deletion and manipulation of phonemes.

**Segmenting Words into Sounds.** Segmenting words into sounds had a frequency count of 13 out of the 150 or 9% of the phonological/phonemic awareness skills coded through the curriculum's instructional units. Segmenting words into sounds is the second most complex skill in the framework sequence of phonological awareness instruction and intervention. This skill is foundational to early literacy success (Schuele & Boudreau, 2008).

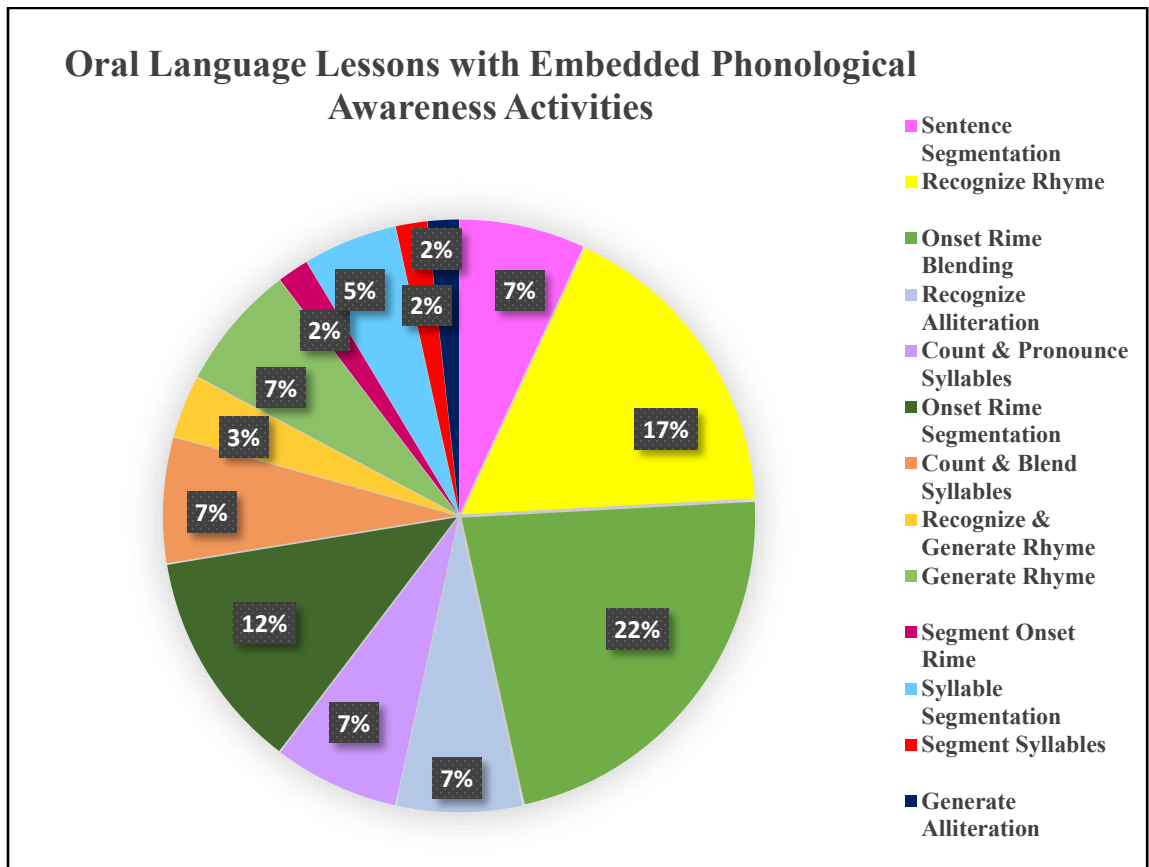
**Onset-Rime Segmentation.** Onset-rime segmentation was the least coded phonological/phonemic awareness lesson, with a frequency count of 2 of 150 lessons or 1% of the total lessons taught through the curriculum's instructional units. This phonemic

awareness skill in the sequence of instruction and intervention would follow a phonological awareness skill of alliteration and precede segmenting of initial and final sounds. Onset and rime are used to improve phonological awareness by helping kids learn about word families.

**Oral Language Lessons**

Though not specifically noted on the weekly planner, the researcher recognized phonological and phonemic awareness activities designated by the publisher embedded in oral language lessons. The decision of the researcher to code the phonological and phonemic awareness activities adds to the understanding of the type and occurrence of these components available in the teacher edition of the curriculum.

**Figure 7.**



Embedded within weekly lessons the publisher designated as oral language, were phonological and phonemic awareness activities.

**Onset-Rime Blending.** Onset-rime blending the ability to blend the onset or initial phonological part of a spoken word with the rime or string of vowels and consonants that follow was the most prevalent. For example, a phoneme onset-rime blending lesson in the teacher edition of the language arts curriculum would be, Tell children that you will say the word see in two parts: /s/ /ē/. Blend the sounds: /sē/, see. Have children repeat: /s/ /ē/, /sē/. Tell children that you will say the first part of a word and then the rest of the word. Have them repeat the two parts and then blend them: /w/ /ent/, went; /d/ /ēp/, deep; /bl/ /ü/, blue (Wonders Unit 1 Week 3 Day 2)

**Recognize Rhyme.** Recognizing rhyme, the ability to listen for sounds in a word and recognize they are made up of separate parts was the next most common phonological/phonemic awareness skill embedded in an oral language lesson. For example, a recognize rhyme lesson in the teacher edition of the language arts curriculum would be, Have children repeat these lines from the rhyme: “Its fleece was white as snow. The lamb was sure to go.” Say snow and go and have children repeat. Tell children that snow and go rhyme because they sound the same at the end. I will say two words. If they rhyme, I will raise my hand: bag, pen. Say the following word pairs and have children raise their hands if they rhyme: rule, tool; bus, bat; rock, sock; cap, fig; dog, log (Wonders Unit 3 Week 1 Day 4).

**Onset-Rime Segmentation.** Onset-rime segmentation the ability to break a word into parts with the onset, initial consonant or consonant cluster of a syllable followed by rime or the remainder that follows was the third most phonological/phonemic awareness

skill embedded in an oral language lesson. For example, an onset-rime segmentation lesson in the teacher edition of the language arts curriculum would be, We can break words into beginning and end parts. Listen: time: /t/ /īm/. Have children repeat. Repeat the routine with dime: /d/ /īm/. Guide children to segment the beginning and end sounds in the following words: bed (/b/ /ed/); red (/r/ /ed/); ride (/r/ /īd/); side (/s/ /īd/) (Wonders Unit 4 Week 1 Day 4).

The fourth most common phonological/phonemic awareness skill embedded in an oral language lesson was taught equally between phonological awareness skills of sentence segmentation, count and blend syllables, recognize alliteration, count and pronounce syllables and generate rhyme. The phonological/phonemic awareness skills least embedded in an oral language lesson were segment syllables and generate alliteration.

Most researchers caution practitioners that phonological awareness intervention should be implemented as part of a comprehensive program in literacy instruction or in early literacy experiences (Gillon, 2018). Gillon further stated that phonological awareness intervention must be seen in perspective with the host of other language experiences, such as shared book reading, alphabetic instruction, storytelling, and involvement in meaningful reading and writing activities. The researcher chose not to code components other than what the publisher designated as a phonological and phonemic awareness lesson. However, the researcher did note other language experiences as part of the language arts curriculum during the review. The Wonders Curriculum provided opportunities through word work phonics lessons to link the phonological and phonemic awareness skills with the alphabetic principle, practice writing letters through

the introduction of the letter, and dictation of sounds for children to spell. The word work phonics lessons as well as incorporated reading words noting letter-sound correspondence, shared reading of poems, reading words and sentences, and the opportunity to practice decoding words in a connected text with the use of decodable readers. Differentiated lessons incorporating some of the language lessons were presented in small group lessons. The lessons were presented in a whole group format. Of further note, the researcher noted phonological and phonemic awareness terms such as phoneme blending, and phoneme isolation in lessons that were designated by the publisher as phonics.

### **Summary**

This pragmatic content analysis provided information about the type, occurrence, magnitude, scope, and sequence of phonological awareness components evident in the teacher edition of the kindergarten language arts curriculum material. A dominant theme in the data was the phonological awareness skill of blending. Blending sounds into words is a more complex or deep-level skill and at this level of phonological awareness is considered phonemic awareness. The more complex phonological awareness or phonemic awareness skills of segmenting initial and final sounds and deletion or manipulation of phonemes were also predominant themes in terms of type and occurrence through the instructional units. The next chapter will present a discussion of the findings as they relate to the literature, the implications of the findings, recommendations for future research, and implications for educational leaders.

## CHAPTER 5

### DISCUSSION

Educational leadership is complex and challenging, requiring prioritization of attention and time to a multitude of leadership practices and responsibilities. Leaders' contributions to student learning, then, depend a great deal on their judicious choice of what parts of their organization to spend time and attention on (Leithwood et al., 2004). Leithwood et al., (2004) further stated that leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school (Leithwood et al., 2004). Improving the quality of teaching and learning should be of utmost importance though it requires educational leaders, to be knowledgeable about and make decisions regarding curriculum, instruction, data, supervision, coaching, feedback, professional learning, and policies affecting curriculum decisions. Requiring leaders to have knowledge of all of these especially curriculum at all levels is challenging and likely unrealistic. However, as educational leaders, knowledge of the critical components to literacy acquisition, understanding of the alignment with research, and if those components are inherent in the curriculum and instructional practices may be worth time and attention. Recognizing that educational leaders should be reflective about the selection of curricula and use of curriculum, this study served as a starting point for understanding one of the critical components of literacy acquisition, phonological awareness, and how it was integrated into the core language arts curriculum and instructional practices of a local school district's kindergarten program. An in-depth review of the phonological and phonemic awareness components provided information for educational leaders to reflect on and determine if these components were present in a

way that supports literacy acquisition and ensures the intended purpose and desired outcome of increasing reading achievement for all students.

Phonology is the domain of language that pertains to the elements of speech and the systems that govern the structural relationships among these elements within and across words (Scarborough & Brady, 2002). Phonemic awareness, the phonological form of the spoken word is the foundation that children need to learn to read an alphabetic language (Gough, 1996). Phonological and phonemic awareness instruction and intervention are important in literacy acquisition and are key predictors of reading success. Components of the phonological system noted in literacy research should be evident in instructional activities presented in a language arts curriculum.

Kindergarten teachers rely upon the core language arts curriculum to provide phonological and phonemic awareness instruction in the classroom. It is essential that instruction is systematic with a prescribed order for introducing skills with components of reading. As this applies to phonological and phonemic awareness one must be aware of the skills that range from less complex to more complex and if those instructional components are in a language arts curriculum. There is general agreement that the sequence of phonological awareness development or learning proceeds from rhyme and the segmentation of words, with the highest level of phonological awareness being the deletion and manipulation of phonemes (Schuele & Boudreau, 2008). Phonemic awareness is part of a hierarchy of meta-linguistic skills that begin with the conscious awareness that sentences are made up of words and culminates in an awareness that words are made up of phonemes, those small units of sound that roughly correspond to individual letters (Snider, 1997). Therefore, it is equally important that a scope and

sequence of phonological awareness as a framework is used when exploring and analyzing whether phonological awareness components are evident within the kindergarten core language arts curriculum.

A review of the language arts curriculum is significant because it provides an in-depth description of what phonological and phonemic awareness components are taught, the timing, duration, intensity, scope, and sequence of instruction. School leaders are required to reflect on their usage of curriculum, selection of curricula, and interventions (Morrison et al., 2021). Research with phonological awareness intervention has provided important insight into issues of timing, duration, intensity, scope, and sequence as well as teaching practices that contribute to highly effective intervention (Schuele & Boudreau, 2008). School district leaders as well as teachers should be aware of the key components of phonological awareness, timing, duration, intensity, scope, and sequence of instruction.

The purpose of this study was to explore and analyze phonological awareness components of a teacher edition of a local school district's kindergarten core language arts curriculum material. A pragmatic evaluation as a research approach is a systematic way to identify the congruence between research and practice, as well as to provide insight into educational purposes and practice including matters of curriculum. An evaluation of the curriculum is to collect information to understand practice rather than test it (Savin-Baden & Major, 2013). Understanding how to integrate phonological awareness effectively and efficiently in everyday classroom environments is critical for supporting initiatives that can elevate reading achievement and reduce inequality in reading outcomes (Carson et al., 2013).



## **Results Related to the Literature**

### **Phonological and Phonemic Awareness Skills of Less Complexity**

Phonological awareness tasks can be broadly categorized by performance types, including rhyming, matching, blending, segmenting, or manipulating sounds, and by phonological units (Choi et al., 2017). Across prevailing models of phonological awareness, phonological awareness is conceptualized as originating at the word level with incremental and increasing sensitivity to smaller units of sound discrimination with age i.e., from word awareness, to syllable and/or rhyme awareness and finally at the level of individual phoneme (Kenner et al., 2017). At its simplest level, phonological awareness manifests as the ability to attend to and make judgments about the general sound structure of language (Schuele & Boudreau, 2008). Schuele & Boudreau (2008) further stated that dividing words into syllables, identifying and generating rhymes, and matching words with the same beginning sound are considered simple phonological awareness tasks indicative of shallow-level knowledge. When activities the publisher designated as phonological and phonemic awareness in the weekly planner were aligned with the sequence of phonological awareness instruction and intervention framework, the phonological skills demonstrating less complexity such as alliteration of initial and final sounds sorts, and rhyme were the least prevalent, as was words into syllables in the curriculum. There is evidence of links between children's early phonological skills, particularly their sensitivity to rhyme and alliteration, and their eventual progress in reading (Bryant et al., 1990). Rhyme and alliteration contribute to reading in at least two ways. Sensitivity to rhyme and alliteration are developmental precursors of phoneme detection which in turn, plays a considerable role in learning to read (Bryant et al., 1990).

Sensitivity to rhyme also makes a direct contribution to reading, probably by helping children to group words with common spelling patterns (Bryant et al., 1990). Focusing early phonemic awareness instruction on blending, segmenting, and manipulating phonemes has been shown to produce greater improvement in phonemic awareness and future reading achievement in young children than time spent in rhyming and alliteration (Reutzel, 2015). Reutzel (2015) further expressed that it is not to suggest that early childhood educators totally abandon rhyme and alliteration activities but rather it is to point out the transitory value of these activities in relation to the more sustained outcomes associated with phonemic awareness instruction focused on phoneme-level activities. The lessons designated by the publisher as rhyming were presented only in Unit 1 and were not evident in the remaining units. The researcher noted that embedded in oral language lessons were phonological and phonemic awareness lessons that included rhyming. Rhyming a phonological skill of less complexity as noted by the framework, was the second most prevalent in oral language lessons. However, because it was embedded within a lesson designated as oral language a question would be whether that phonological awareness skill took precedence over the main lesson components or was a priority of individual teachers or the kindergarten department and therefore taught. With respect to the phonological skill of rhyming and the limited amount of or potentially optional direct explicit instruction and practice, what would the impact on more complex phonological and phonemic awareness development be for students who are having difficulty learning to read or the necessary scaffolding for students with specific disabilities such as a speech sound disorder or speakers of languages other than English? Though rhyming was evident in the nursery rhymes used, what was the explicit

instruction tied to the phonological awareness skill? Additionally, if rhyming as a phonological awareness skill was taught in a preschool or prekindergarten curriculum by this publisher, not all children in the district would have had the opportunity to learn this skill as preschool or prekindergarten is not universal.

A less complex phonological skill of breaking words into syllables was represented by 4% of the activities taught when comparing the publisher-designated phonological and phonemic awareness lessons to the framework. Recognizing and blending syllables, lessons in the language arts curriculum were only evident in Unit 0, the Smart Start Unit. Lonigan et al., (1998) suggested that the lower levels of phonological sensitivity (i.e., syllables) are developmental precursors to higher levels of phonological sensitivity (i.e., phonemes). Segmenting and blending spoken syllables are early phonological awareness skills and what would be the limited instruction on this phonological awareness skills impact on the acquisition of more complex phonemic awareness skills, phoneme-grapheme correspondences, and decoding?

### **Phonological or Phonemic Awareness Skills of More Complexity**

In a pure form, phonological awareness tasks do not involve print, and phonological awareness tasks require a child to analyze, make judgments about, or manipulate sounds in spoken words (Schuele & Boudreau, 2008). At the complex or deep level, the ability to isolate and manipulate individual sounds or phonemes is involved and skills at this level are called phonemic awareness (Schuele & Boudreau, 2008). Phonemic awareness skills range from onset-rime segmentation to more complex skills of deleting and manipulating phonemes as represented by the sequence of phonological awareness instruction and intervention framework used in this study. The phonemic awareness

lessons taught most in the kindergarten language arts curriculum were phoneme blending. Phoneme blending was the phonemic awareness skill taught most across eleven instructional units. When aligned with the framework blending sounds into words, was represented by 37% of the skills coded. Deleting, manipulating by substitution or addition of phonemes had a frequency count of 26 of 150 lessons or 18% of the phonological/phonemic awareness skills coded when aligned with the framework. Of note, most lessons were manipulation of phonemes by addition or substitution rather than deleting phonemes. Deletion of phonemes designated as a phonemic awareness lesson designated by the publisher was taught 6 times and only in Units 7 and 9. This is the most complex phonemic awareness skill noted in the framework. A likely explanation for the limited amount of phoneme deletion lessons taught could be that the manipulation of phonemes in addition and substitution of phoneme lessons supported the acquisition of this phonemic awareness skill or that the practice of deletion as a phonemic awareness skill, vertically aligned with the first-grade language arts curriculum and more prevalent at that grade level. Segmenting initial and final sounds had a frequency count of 26 of the lessons or 17% of the phonological/phonemic awareness skills coded on the framework. Instruction of segmenting initial and final sounds is considered a phonemic awareness skill and would be taught prior to the phonemic skills of blending, segmenting words into sounds, and deletion and manipulation of phonemes. Segmenting of sounds was taught in Units 1 through 8. Segmenting words into sounds had a frequency count of 13 out of the 150 or 9% of the phonological and phonemic awareness skills coded on the framework. Segmenting words into sounds is the second most complex skill in the framework sequence of phonological awareness instruction and intervention. This skill is

foundational to early literacy success (Schuele & Boudreau, 2008). Phoneme segmentation, the ability to break words down into individual phonemes, was the fourth most common phonological, phonemic awareness skill taught through eleven instructional units and was taught in Units 2 through 6 and again in Units 8 and 10. Ultimately, though, as noted in the report of the National Reading Panel “Teaching Children to Read” (NICHD, 2000a, 200b), to have an impact on reading and spelling, segmenting and blending must be targeted (Schuele & Boudreau, 2008). In principle, if a child does not appreciate that spoken words can be broken up into smaller components not just syllables and sub-syllabic units (pertaining to the subdivision of syllables into onsets and rimes) but also phonemic segments then it would be extremely difficult for the child to grasp the “alphabetic principle”, that a correspondence exists between the string of letters that make up a printed word and the sequence of phonemes in the spoken word form (Scarborough et al., 1998).

### **Phonological Awareness Instruction**

Phoneme awareness instruction is more effective than alternative forms of instruction or no instruction in helping children acquire phoneme awareness and facilitating transfer of phoneme awareness skills to reading and spelling (Ehri et al., 2001). Explicit instruction requires that the skills and strategies necessary for developing reading competence, phonological awareness, word recognition, fluency, vocabulary, and comprehension or for remediation of areas of weakness are taught directly to students (Ritchey, 2011). The kindergarten language arts curriculum phonological and phonemic awareness lessons were presented in whole group format for 5 minutes daily resulting in 25 total minutes of instruction per week. The phonological and phonemic awareness

lessons focused on one phonological or phonemic awareness skill at a time. Ehri et al., (2001) noted in a meta-analysis of controlled experiments that phonemic awareness instruction delivered in small groups boosted reading and spelling performance more than tutoring or classroom and that phonemic awareness instruction between 5 to 18 hours was effective for teaching phonemic awareness. Ehri et al., (2001) however caution interpreting results as extenuating circumstances such as the goals of instruction might have been more complex in programs lasting longer, students may have been harder to teach or may depend upon the goals of instruction, the number of phoneme skills being taught, whether letters are included and how much or how little learners already knew about phonemic awareness when they began. In the meta-analysis, Ehri et al., (2001) noted that instructional sessions should not be more than 30 minutes long. The kindergarten language arts curriculum phonological and phonemic awareness skill identified in the weekly planner was taught a minimum 1 time a week and repeated throughout the unit at a minimum one time. However, some phonological or phonemic awareness skills were taught at least twice a week and repeated up to 6 times in a language arts unit. According to Ehri et al., (2001), if phonemic awareness instruction between 5 to 18 hours was effective for teaching phonemic awareness only one phonemic awareness skill, blending sounds into words, even approached that level at 4.6 hours across the academic year if looking at the lessons coded and designated by the publisher as phonemic awareness.

Through weekly and unit assessments, the kindergarten language arts curriculum provided teachers information regarding children's skills in phonological or phonemic awareness. Based on the assessment, additional lessons differentiated based on whether a

student was approaching, on level, beyond level, or an English learner were available. Of note the lessons for students who were approaching but had not mastered the phonological or phonemic awareness skill and English Learners would have the opportunity to participate in a small group repeating what appeared to be the lessons presented during the week or unit. Whether individual teachers or the kindergarten department chose to use the small group differentiation lessons designated by the publisher, chose a supplemental instructional curriculum based on individual student needs or if the small group lessons were beneficial to students learning phonological and phonemic skills is not known.

The study's findings demonstrated the scope and sequence of phonological and phonemic awareness skills taught. Of note the language arts curriculum's sequence of phonological and phonemic awareness skills taught did not necessarily align with the framework of the sequence of phonological awareness instruction and intervention, even though the phonological and phonemic awareness skills were evident in the curriculum. A more complex phonemic awareness skill such as phoneme blending was taught as early as Unit 1 with less complex skills either not taught or limited in scope. In addition, a complex skill such as phoneme blending was repeated in all language arts units while some phonological awareness skills were limited in scope or taught at the beginning as in Unit 0, and at the end of the instructional year as in Unit 10. Regardless, segmenting and blending are recognized as critical skill achievement, with lower-level skills important in instruction and intervention to the extent they facilitate subsequent development of blending and segmenting (Schuele & Boudreau, 2008). Further Schuele & Boudreau (2008) stated that from a developmental perspective, it is best to view the steps of the

sequence not as discrete, sequential stages, but rather as overlapping stages. Shapiro & Solity (2008) investigated whether implementing phonological awareness and phonics training focused on the most useful and generalizable skills first, even if developmentally they are acquired after skills that appear easier within whole class mixed ability lessons can impact children at risk of developing reading difficulties as well as raising attainments for normal developing children. Delivering short, frequent whole-class sessions that included focused phonological awareness of synthesis and segmentation, phonics, sight vocabulary, and reading real books to and with children can significantly impact the reading development of children with poor phonological skills (Shapiro & Solity, 2008).

The primary thrust of early school instruction is founded on the premise that skills such as letter knowledge, the ability to analyze the sounds of language into discrete units, and the ability to link sounds to symbols can develop rapidly with proper instruction (Dickinson et al., 2010). A meta-analysis of experimental training studies conducted by Bus & Izendoorn (1999) suggested that gains are more consistent and robust when phonological awareness has been trained together with letter-sound correspondence. Sounds are ephemeral, short-lived, and hard to grasp, whereas letters provide concrete, visible symbols for phonemes. Thus, we might expect children to have an easier time acquiring phonological awareness when given letters to manipulate (Ehri et al., 2001).

The researcher chose not to code components other than what the publisher designated as a phonological and phonemic awareness lesson in the weekly planner. However, the researcher did note other language experiences as part of the language arts curriculum during the review. The Wonders Curriculum provided opportunities through



weekly word work phonics lessons to link the phonological and phonemic awareness skills with the alphabetic principle, practice writing letters through the introduction of the letter, and dictation of sounds for children to spell. The word work phonics lessons incorporated reading words noting letter-sound correspondence, shared reading of poems, reading words and sentences, and the opportunity to practice decoding words in connected text decodable readers. The lessons were presented in a whole group format. Of further note, phonological and phonemic awareness terms such as phoneme blending, and phoneme isolation were utilized in word work lessons that the publisher designated in the weekly planner as phonics. Smith et al., (2001) noted that sufficient intensity includes duration, frequency, explicitness of instruction, attention to instructional details that may cause confusion, and the appropriateness of instructional activities. The importance of phonological awareness skills linkage to the alphabetic principle is noted in the literature. In this study because phonological awareness terminology is used in a lesson designated by the publisher as phonics, could this have led to confusion in the teachers' understanding of phonological awareness and phonics, understanding the alphabetic principle, and thus the impact of instruction and learning? For instructional priorities of phonological awareness, instruction needs to be explicit, not left to either natural development in the absence of instruction or inference by the learner during instruction (Simmons & Kame'enui, 1998). Phonological awareness and alphabetic understanding are learned concepts and therefore instruction must make all strategies conspicuous by explicitly teaching them in a manner that is systematic and sequential (Coyne et al., 2011).

## **Instruction**

The National Center to Improve the Tools of Educators identified six principles that transverse a range of academic contents and capture the distinct and critical features of academic domains: big ideas, mediated scaffolding, conspicuous strategies, strategic integration, primed background knowledge, and judicious review (Dixon et al., 1992 as cited in Simmons & Kame'enui 1998). This framework of curriculum principles when applied to beginning reading instruction refers to a set of unifying curriculum activities necessary for successful beginning reading or the big idea (Coyne et al., 2011). The researcher in this study did not specifically analyze the types and occurrences of the six design principles but made the following observations. Instructional priorities of the big idea of phonological and phonemic awareness were evident as were conspicuous strategies in individual lessons. Conspicuous strategies are sequences of teaching events and teacher actions that make explicit the steps required to hear and manipulate sounds (Dixon et al., 1992) as reported in Simmons & Kame'enui 1998). An explicit instructional move is defined as specific, discrete instruction, elements, or actions provided to a teacher in the core reading program teachers' edition lesson on how to teach a particular reading task, skill, strategy, content, or concept (Ruetzel et al., 2014). In the kindergarten language arts curriculum explicit directions on what materials to use, how to model the phonological or phonemic awareness skill, and instructions for guided practice and practice as well as a classroom routine presentation were outlined. Strategic integration involves the logical and purposeful connection between skills and strategies with purposeful connection of prerequisite skills to develop more sophisticated applications to higher-order skills (Coyne et al., 2011). One way to observe strategic

integration would be to note if a phonological awareness skill was integrated with one of the reading skills such as letter-sound correspondence, reading regular words, spelling, and writing tasks. The researcher observed these by noting the activities in the snapshot of the weekly plans in lessons specific to what the publisher designated as word work phonemic awareness or phonics lessons, handwriting, reading, and writing workshops, and shared reading. Additionally, strategic integration can be noted through explicit connection between strategies through instruction such as “Do you remember how we heard the sounds in words and blended those sounds together to make words, today we will sound out the letters to read words.” The researcher did not note explicit connections between prior phonological or phonemic awareness skills learned and when that skill was repeated in a later language arts unit nor a curriculum design principle of primed background knowledge when a connection between new and old material or that a prerequisite skill for a new skill was explicitly stated in the instructions provided to teachers or instructions to students. Judicious review suggests a schedule of mass, cumulative, and varied review opportunities that are distributed throughout the program (Wanzek et al., 2000). Decisions as to what to review, how often, and when depend to a large extent on exactly what has been taught, how often, and when the particular outcome is desired (Coyne et al., 2011). As noted in the review of phonological and phonemic awareness activities in the kindergarten language arts curriculum, phoneme blending was the concept taught most and was evident across all language arts units. Phonological awareness skills such as recognizing rhyme, recognizing syllables, sentence segmentation awareness, and blending syllables were presented in lessons designated as phonological awareness in the weekly planner only in Unit 0. To get beyond the starting point in

reading acquisition, attention to the design principle of judicious review is pivotal (Simmons & Kame'enui, 1998). 2011).

The principle of mediated scaffolding refers to the external support provided by the teacher, tasks, and materials during the initial learning of sounds and strategies for consciously hearing and manipulating sounds (Simmons & Kame'enui, 1998). The researcher noted in the review of the phonological and phonemic awareness lessons, that with respect to content scaffolding or skill introduction from easy to more difficult a more complex skill such as blending sounds was introduced early in the academic year. One explanation for the introduction of phoneme blending early in the academic year and repeated throughout the year could be it is a complex phonemic awareness skill that necessitates repeated explicit instruction exposure and practice to be purposely connected to reading and reading acquisition. Though phoneme blending may have been introduced concurrently within the same week with other phonological or phonemic awareness skills, could the absence of or limited scope of other phonological awareness phonemic awareness skills impact the understanding of those concepts and impact children's acquisition of those phonological awareness skills? Mediated scaffolding also refers to the personal guidance, assistance, and support that teachers provide. At a surface level, the researcher noted that the lesson design included a teacher model, guided practice, and practice format with practice including whole group response. Within the lesson was a class presentation routine that outlined the selection of the lesson, listening to the introduction as a class, practice as a class with and without an individual student computer activity, calling volunteers to the whiteboard to complete the activity as a class, or complete several examples as a class and then assign the activity to children for

independent practice or a computer center activity. The principle of mediated scaffolding is particularly important to students who may not profit from traditionally sequenced and structured curricula (Coyne et al., 2011). In this format, a question the researcher had was whether students were afforded sufficient instruction and practice, especially students who struggled with acquiring the phonological or phonemic awareness skill taught. In addition, how does the teacher understand whether students are or are not understanding the phonological or phonemic awareness skill when practice is independent while other students are demonstrating on the board? Perhaps that was the purpose of the weekly assessment and unit assessment used to differentiate small group instruction lessons to support individual student needs. Core instruction should benefit all students, but more intensive phonological awareness instruction may be needed for students who are struggling to learn the concepts beyond those provided even in the small group differentiated instruction.

### **Implications and Considerations for Research**

This pragmatic content analysis explored and analyzed phonological awareness components of a teacher edition of a local school district's kindergarten core language arts curriculum. This study reviewed and coded weekly lessons designated on the weekly plan as phonological and phonemic awareness noting type, occurrence, magnitude scope, and sequence. The phonological and phonemic awareness skills taught were aligned with a framework of the sequence of instruction and intervention noted in Schule & Boudreau (2008) as far as concepts taught.

The review of the kindergarten language arts core curriculum reflected the big idea, the importance of phonological and phonemic awareness skills instruction, and its

role in facilitating children's acquisition of reading. It also reflected the three keys for the prevention of reading disabilities or delays, the timing of instruction, with instruction beginning in kindergarten, the content of instruction focused heavily on phonological awareness, alphabetic understanding and fluency of critical skills, and the quality of the instruction, instructional design, and delivery with sufficient intensity to help students reach thresholds of skill and understanding by the end of kindergarten (Smith et al., 2001). Phonological awareness instruction as well should not be independent of a comprehensive program in literacy instruction. Ehri et al., (2001) suggested that the impact of phonological awareness may be greatest in preschool and kindergarten and may become smaller beyond first grade.

Phonological and phonemic awareness as a critical skill that contributes to literacy acquisition was inherent in the curriculum as was generalization to the alphabetic principle and other literacy activities. When reviewing the language arts curriculum, one must question whether phonological and phonemic awareness instruction is systematic with a prescribed order for instruction and intervention and whether a variety of skills ranging from less complex to more complex skills are evident within the instructional process. Analysis of the type, occurrence, magnitude, scope, and sequence of phonological and phonemic awareness components of the kindergarten curriculum noted the prevalence of phonemic awareness skills of more complexity were taught either the most, occurred more frequently across language arts units, thus the academic year while phonological or phonemic awareness skills at a less complex level were either limited in scope and limited in sequence in designated phonological or phonemic awareness lessons. While research varies on the mastery of earlier emerging skills or less complex

skills on subsequent or more complex skills what is critical is explicit instruction on phonological and phonemic awareness of reading acquisition. While it might not be realistic to expect all phonological awareness and phonemic awareness skills to be addressed at a high frequency, or across the academic year, an implication is whether the scope and sequence, intensity of instruction of specific phonological or phonemic awareness skill lessons or lack thereof of some components in this curriculum support student progress in acquiring and mastery of these skills and facilitates the acquisition of reading and writing. Of particular importance are children who may struggle with learning these concepts or have a disability such as a speech sound disorder that could be impactful or are beginning to present a specific learning disability in reading. Is this curriculum regardless of whole group or differentiated instruction in phonological or phonemic awareness supporting these children? Are interventions provided that are significantly different than what the core curriculum or differentiated instruction of the core curriculum provides? Once a curriculum is published and adopted by districts, do we have implementation data from everyday practice across multiple and varying demographics to know if what was developed is having the desired impact on student learning?

This study served as a starting point for additional research using a pragmatic content analysis of this curriculum or any curriculum when investigating phonological and phonemic awareness components. Future research regarding the kindergarten curriculum reviewed could consider data that aligns with student acquisition of individual phonological and phonemic awareness skills, an opportunity to see how student growth in phonological and phonemic awareness skills progress in the curriculum, and how it links

to actual student achievement. Future research using a content analysis of phonological and phonemic awareness skills could investigate these components to see how they align in the preschool and first-grade language arts curriculum used by this district to identify gaps in the curriculum, language arts program, program delivery, and the amount of support students need. Ehri et al., (2001) suggested that impact of phonological awareness may be greatest in preschool and kindergarten and may become smaller beyond first grade. While a timeline for achievement of reading outcomes is ultimately the district, a content analysis of the preschool, kindergarten, and first-grade curriculum might lead to changes in expectations for achievement of especially phonological or phonemic awareness skills, instruction, and intervention. Also, a deeper dive may provide information if supplemental materials are required in order to support the acquisition of phonological and phonemic awareness skills.

Future research on the six design principles and the potential impact on learning phonological and phonemic skills specific to this curriculum could be a consideration. Design principles with regard to explicit instruction elements provided to the teacher regarding strategic integration of explicit connections between prior phonological or phonemic awareness skills learned and when that skill was repeated in a later language arts unit and the curriculum design principle of primed background knowledge when a connection between new and old material or that a prerequisite skill for a new skill was explicitly stated in the instructions provided to teachers or instructions to students might be worth investigating. The design principle of mediated scaffolding regarding student practice and whether it affords students sufficient opportunity to learn the phonological or phonemic awareness skill as well might be reviewed.



Studies have been conducted measuring whole group versus small group, timing, duration, intensity, and frequency of phonological and phonemic awareness instruction often under controlled settings outside of the classroom. Considering the organization, planning and management of diverse learners in actual classrooms future studies need to continue to validate which are most impactful when structuring and delivering phonological and phonemic awareness instruction in a core language arts curriculum and bridging the gap between research and instructional practices especially for students who are most at risk for developing these skills in that environment.

### **Implications for Educational Leadership**

As educational leaders whose focus is on improving teaching and student learning what does this require regarding knowledge of the critical components to literacy acquisition, understanding of the alignment with research, and if those components are inherent in the curriculum and instructional practices? Are processes and procedures in place at all levels of leadership to evaluate and take a closer look at core reading programs and are they sufficient to ensure the intended effects on teaching and student achievement of all students? Are the process and procedures sufficient to ensure that the curriculum incorporates phonological and phonemic awareness research, that instructional methods in this area are inherent in the curriculum such as timing, duration, intensity and scope, sequence of instruction, and are instructional design principles substantial to support the acquisition for phonological awareness for all children? Are we sure about the intended and perhaps unintended effects the curriculum has on teaching and learning? Do we know what components of the taught curriculum are producing the

desired results or undesired results? Do multiple data sources indicate that a deeper dive into the curriculum is required?

Curriculum evaluation at a deeper level not only assists educational leaders in determining if the taught curriculum produces the results desired but also alerts educational leaders at the district or building level whether the curriculum should be improved and how. It also informs educational leaders whether the framework used for evaluating language arts curriculum during a curriculum adoption cycle may need to be revised. Educational leaders may need to determine if the process and framework used in determining viable curriculum ensure that materials are not reviewed at a surface level or solely reliant on the materials the publisher supplied during a curriculum adoption. We must be more diligent than asking questions such as, “Do the materials provide strong instruction in phonemic awareness?” or “Is there high-quality literature?” As educational leaders we must define more in-depth what we, educational leaders, and teachers, should be looking for that is supported by research, the gaps we have identified in an evaluation of the previous curriculum, and most importantly gaps in student learning. We must ask as educational leaders if the process and framework we use during curriculum adoption are sufficiently comprehensive to reflect what is needed for effective teaching and learning.

### **Conclusion**

The purpose of this study was to explore and analyze phonological and phonemic awareness components of a teacher edition of a local school district's kindergarten language arts curriculum. Even though this study focused on a single language arts curriculum it provided a description of the phonological and phonemic awareness

components that contribute to literacy acquisition of the students in a local school district. This study provided an in-depth description of what phonological and phonemic awareness components were taught, the timing, duration, intensity, scope, and sequence of instruction.

An evaluation of core reading programs enables school leaders to identify consistency with research, identify gaps in the curriculum, identify gaps between program and program delivery, and identify the amount of support teachers and students need to effect change. This is especially important for children who do not master phonological awareness skills through classroom curricula. Curriculum evaluation at a deeper level assists educational leaders in determining if the taught curriculum produces the results desired. A curriculum evaluation also alerts educational leaders at the district or building level whether the curriculum should be improved and how. More importantly, the value of rigorously evaluating the quality of phonological awareness instruction and even the design principles in the curriculum may lie in the process itself. For educational leaders to make decisions in the selection and implementation of instructional materials, they should be well-informed about what effective reading instruction involves.

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