PHONOLOGICAL AWARENESS IN THE KINDERGARTEN CLASSROOM: HOW DO TEACHERS PERCEIVE THIS ESSENTIAL LINK FROM ORAL COMMUNICATION TO READING SKILL DEVELOPMENT

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Margaret Dahmer
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Phonological Awareness In The Kindergarten Classroom:
How Do Teachers Perceive This Essential Link
From Oral Communication To Reading Skill Development
by Margaret Dahmer

APPROVED:
COMMITTEE CHAIR
Connie L. McDonald, Ph.D.

COMMITTEE MEMBERS
Meredith P. Furrow, Ed.D.
Gina B. Thomason, Ed.D.

CHAIR, GRADUATE STUDIES
Scott B. Watson, Ph.D.
Abstract
Margaret Dahmer. PHONOLOGICAL AWARENESS IN THE KINDERGARTEN CLASSROOM: HOW DO TEACHERS PERCEIVE THIS ESSENTIAL LINK FROM ORAL COMMUNICATION TO READING SKILL DEVELOPMENT. (Under the direction of Dr. Connie McDonald) School of Education, April, 2010.

This descriptive research study, combining survey and correlation methods, described the perceptions and behaviors of kindergarten teachers in relation to phonological awareness usage in their classroom experience. Current research related to early literacy development acknowledges the significance of phonological awareness in emergent reading programs. The benefits of explicit phonological awareness instruction are well documented in reference to implications for current reading abilities and future academic achievements. The current study was developed to address a gap in current research associated with how kindergarten teachers perceive the importance of phonological awareness, and how this importance is demonstrated in their classroom experience.

Participants for the study included kindergarten teachers from 85 elementary schools in a school district in Ontario. A survey was incorporated for use with the target population. Data attained from the research provided a description of the perceptions that kindergarten teachers adhere to regarding the significance and use of phonological awareness instruction. The kindergarten teachers perceived phonological awareness as significant in relation to being a reading skill taught in kindergarten, a prevention strategy for reading acquisition, and having a role in incidental, informal instruction. The data also provided a descriptive profile of the actual behaviors associated with phonological
awareness exhibited by educators in the kindergarten classroom. The results indicated that some of the perceptions recorded by the respondents were not reflected in the behaviors occurring within the kindergarten classrooms. In addition, the behavior data was analyzed using a Spearman’s coefficient correlation to investigate any relationships between phonological awareness behaviors and years of teaching experience. A potential relationship between years of teaching experience and the inclusion of specific phonological awareness instruction emerged from the findings. The descriptive profile attained from the data analysis was useful to attain a greater awareness of how theoretical understandings pertaining to phonological awareness relevance and usage are actually occurring in the kindergarten classroom context.
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Chapter One: Introduction

The reading skills acquired during kindergarten provide the essential, foundational links required for later reading success. During the early years of a student’s elementary school education, oral language skills become the underpinning for the acquisition of reading skills. The National Institute for Literacy (NIFL, 2007), defines reading as

A complex system of deriving meaning from print that requires all of the following: (a) the skills and knowledge to understand how phonemes, or speech sounds, are connected to print; (b) the ability to decode unfamiliar words; (c) the ability to read fluently; (d) sufficient background information and vocabulary to foster reading comprehension; (e) the development of appropriate active strategies to construct meaning from print; and (f) the development and maintenance of a motivation to read. (p. 1)

One of the essential elements of beginning reading is evidenced in the first part of this definition: “the skills and knowledge to understand . . . phonemes, or speech sounds” (NIFL, 2007, p. 1). Phoneme understanding is referred to in general terms as phonological awareness. Phonological awareness, according to Kirby, Parrila, and Pfeiffer (2003), refers to “the awareness of the sound structure of words and the ability to manipulate sounds in words” (p. 453). Phonemic awareness is a specific component of phonological awareness. Torgesen (2004) referred to phonemic awareness as the tasks that “require children to identify or manipulate the phonemes in words that are presented orally” (p. 4). There are several components, or subskills, associated with phonological
awareness: phoneme deletion, phoneme segmentation, phoneme categorization, syllabic awareness, rhyme awareness, and sound blending. Each of these components, or subskills, is referred to in research utilizing a variety of terms. Although there does not seem to be a consistency in the terminology associated with each subskill, the actual role of each component in phoneme development is similar between researchers. Young children demonstrate each of these components through their oral language. Children’s receptive and expressive oral language development becomes increasingly significant as they enter kindergarten. Within the early years of a student’s formal education, beginning reading skills will emerge from a phonological basis.

Kindergarten educators have a key role in providing students with the required phonological skill instruction that will assist in the transition from oral communication to written communication. How these educators perceive the significance and use of phonological awareness will likely have an impact on the behaviors that they exhibit in the classroom context.

The current study focused on the perceptions and behaviors of teachers in kindergarten classrooms in relation to phonological awareness. Chapter One provides the reader with an introduction to the study, background information, the research questions, the null hypotheses, and the professional significance of the study. Within the final section in Chapter One, an overview of the methodology and a definition of relevant terms are presented. The chapter concludes with a summary.
Background of the Study

**Origin of phonological awareness as a predictor of reading.** Zhurova and Elkonin, two Russian psychologists, are considered to be the founders of the concept of phonological awareness, beginning in the 1960s. Ball and Blachman (1991) wrote, Zhurova and Elkonin’s “work indicated that a relationship existed between phoneme segmentation abilities and subsequent success in early reading” (p. 51). Having students isolate sound parts helped them become more aware of the sounds heard in words. In the early 1970s, Kavanaugh and Mattingly (1972) added to the developing knowledge of phonological awareness in their book, *Language by Ear and by Eye*. Within the pages of this book, the authors examined the function and structure of how information is processed, particularly in relation to speech and print. The importance and integration of speaking and listening skills to reading development were explored in the chapters which comprised *Language by Ear and by Eye*.

**Development of phonological awareness since its origin.** In the 1980’s, information about the relationship of phonological awareness and reading became more extensive with Torgesen’s (1990) research. In Torgesen’s study, *The Nature of Phonological Process and Its Causal Role in the Acquisition of Reading Skills*, the role of phonological awareness as a vital component of reading skill acquisition was discussed. Several studies related to phonological awareness resulted from the impact of Torgesen’s research (i.e., Catts, Fey, Zhang, & Tomblin, 1999). In the late 1980s and early 1990s, Torgesen’s enhanced understanding of phonological awareness influenced the field of education in relation to the significance of phonological awareness and its relationship to reading. Cassady, Smith and Putman (2008) wrote, “Literacy experts have demonstrated
the important role of [phonological and phonemic awareness] skills in the process of learning to read and spell” (p. 508). Since the 1980s, as researchers became more aware of the importance of phonological awareness to reading skill development, many studies were initiated to explore the relational links. Blaiklock (2004), in responding to the developments that have occurred during the last two decades, stated, “Numerous studies have found an association between phonological awareness and the acquisition of literacy” (p. 36). Current research findings (i.e., Al Otaiba, Connor, Lane, Kosanovic, Schatschneider, Dyrlund, & Wright, 2008; Cassady, Smith, & Putman, 2008) continue to add to a developing understanding of the significance of phonological awareness to reading.

**Acquisition of phonological awareness skills.** Students enter school with a diverse background of language experiences. Through hearing and speaking experiences, these young students have had many opportunities to engage in incidental phoneme practice. The kindergarten classroom is often the first environment for a child to have authentic, explicit phonological instruction. Diversity exists in relation to specific tasks and levels of tasks that comprise phonological awareness. Rhyme, for example, is a phonological awareness skill that is usually easier for a young child to grasp than mastering blending or segmenting phonemes, which would be considered more difficult. A “proposed timeline for benchmarks or outcomes in phonological awareness” (p. 10) is suggested by Schuele and Boudreau (2008). This timeline includes the following stages: during early kindergarten, a focus on matching and generating rhyming words; during middle kindergarten, a focus on matching words with the same beginning sounds, matching words with the same final sound, and segmenting initial and final sounds;
during late kindergarten, a focus on segmenting and blending two and three sounds words containing variations of a consonant and a vowel; and during early Grade 1, a focus on segmenting and blending sounds in words containing blends (Schuele & Boudreau, 2008, p. 10). Phonological awareness skills are often learned simultaneously, and children do not necessarily need to master one skill before focusing on a new one.

Recent research related to the acquisition of phonological awareness skills suggests that children progress from large units of speech to “increasingly smaller units of speech” (Cassady et al., 2008). Cassady et al. contended that “the progressive acquisition of phonemic awareness skills is proposed to follow a pattern: (a) detect distinct auditory units, (b) manipulate the units, and (c) eventually connect the auditory stimuli to alphabetic representations in written language” (p. 510). Emerging as a reader is a gradual process that involves opportunities for children to engage in oral communication, which effectively leads them to a greater understanding of the language they use. Kjeldsen, Niemi, and Olofsson (2003) confirmed, “the role of phonological and phonemic awareness in literacy acquisition. [. . . ] focuses on the child’s ability to consciously go beyond a words meaning in order to process its sound form” (p. 350).

Young students develop a greater understanding of the structure of words—words comprised of individual sounds.

The goal of phonological awareness instruction, according to Schuele and Boudreau (2008), is for “a child [to] acquire a foundation of phonological awareness [which] enables him or her to benefit from general education decoding instruction. This involves the understanding that language is composed of syllables and sounds” (p. 9). To become a reader, young children need opportunities to manipulate the sounds heard in
ways that will assist them to understand the relationship of phonemes to graphemes to read words. The phoneme–grapheme relationship is what comprises the alphabetic code of the English language. B. M. Phillips, Clancy-Menchetti and Lonigan (2008) referred to the alphabetic code or the alphabetic principle as “the fact that written words represent spoken words in a sound-by-sound correspondence” (p. 4). Learning how to utilize the alphabetic code of the English language in reading and writing is the overall goal. Phonological awareness skills provide an essential link between one’s oral language skills and becoming an effective reader.

**Need for intentional and explicit phonological awareness instruction.** As an essential component of an early emergent reading program, phonological awareness instruction is required in the kindergarten classroom. Phonological awareness instruction should be intentionally planned and purposefully implemented in an explicit manner within the kindergarten reading program. Torgesen (2004) defined *explicit instruction* as “instruction that does not leave anything to chance and does not make assumptions about skills and knowledge that children will acquire on their own” (p. 6). Research supports the necessity of explicit phonological instruction, which is systematically, consistently, and deliberately taught (B. M. Phillips et al., 2008); skillfully delivered (Torgesen, 2004); and regularly monitored for effectiveness (Kjeldsen et al., 2003). Young children need opportunities to develop an understanding of the sound structure and the connection between sounds and their visual representations. Byrne and Fielding-Barnsley (1989) wrote,

> Explicit instruction in letter-phoneme relations, added to phonemic awareness, makes it likely that the child can compute the representational function of those
letters, whatever their position in otherwise unknown words; in this case the alphabetic principle can be said to have been discovered. (p. 320)

Positive results in one’s early reading skills appear to be the outcome of explicit phonological awareness instruction. Mather, Bos, and Babur (2001) acknowledged, One surprising finding of the last decade has been that early, systematic instruction in phonological awareness provided in the general education classroom improves children’s early reading and spelling skills and results in a reduction of the number of students who are reading below grade level and are identified as having learning disabilities. (p. 472)

Research, such as Mather, Bos and Babur’s study, indicated that explicit phonological awareness instruction is beneficial to advance one’s reading skill development, as well as preventing early reading deficits. In addition, intentional instruction in phonological awareness can be useful as an intervention strategy to support young learners who have been identified as being potentially at risk of reading difficulties.

**Absence of explicit phonological awareness instruction.** Omitting explicit phonological awareness instruction in the kindergarten classroom may have a negative impact on a child’s reading skill development. Hurry and Sylva (2007) asserted, “research has consistently identified deficits in phonological processing as one of the most common causes of literacy difficulties” (p. 228). When phonological awareness is not systematically and intentionally included in a kindergarten reading program, there are some young students who have the potential to become at risk of reading deficits. The link between phonological awareness to beginning reading reinforces the necessity of providing appropriate instruction in the kindergarten classroom.
With an increase in the expectation that children learn to read very early in their formal education, kindergarten teachers are pressured to implement a reading program that focuses solely on the outcome—fluent readers. These pressures may lead to an absence of focusing on some of the essential links for reading success, such as phonological awareness. If children hurry through the process of learning to read, without acquiring a solid understanding of the foundational skills or having opportunities to build upon their developing understanding of English language usage, they may be at risk for reading deficits, which can impact their role in becoming fluent readers who comprehend what is read and how it is written. Kirkland and Patterson (2005) stated, “the cost of deleting oral language [such as phonological awareness skills] from our classrooms is high” (p. 392). Children may progress through their reading skill development at varying rates; however, when specific, foundational skills are omitted from the curriculum or are not focused upon in an intensive manner, children may acquire reading deficits. Kindergarten teachers have an important role in providing phonological awareness skills for their students in an intensive, explicit manner to decrease or eliminate the potential deficits that may occur and that place some children at risk of reading difficulties. The research that follows identified the perceptions and behaviors of kindergarten teachers to provide a greater understanding of phonological awareness usage in classrooms.

**Research Question**

As the study unfolded, the primary question to be focused upon was: What are the perceptions of and behaviors of kindergarten teachers in relation to phonological awareness instruction? A secondary question considered was: Is there a significant
relationship between phonological awareness behaviors and teachers’ years of experience?

**Null Hypotheses for the Study**

A null hypotheses was required to address the secondary research question. The null hypothesis for this portion of the study was: There will be no significant difference between phonological awareness behaviors and teachers’ years of experience. Since there are three specific behaviors which are considered in this study, this second hypothesis needs to be considered through the use of three specific hypotheses. These three hypotheses include:

1. There is no significant difference between the frequency of behaviors associated with the use of formal phonological awareness assessments and the groups, years of teaching experience and years of kindergarten teaching experience.
2. There is no significant difference between the frequency of behaviors associated with instruction of specific phonological awareness skills, and the groups, years of teaching experience and years of kindergarten teaching experience.
3. There is no significant difference between the frequency of behaviors associated with the incorporation of phonological awareness activity centers, and the groups, years of teaching experience and years of kindergarten teaching experience.

**Professional Significance of the Study**

In recent years, reading achievement rates have continued to indicate that several students in the mid-elementary grades are illiterate or are not reading at grade-level expectations. These statistics have increased the focus on literacy acquisition; in particular, a more intensive focus on developing higher standards in reading so that all
children become readers has resulted. Discovering that reading achievement in the later elementary grades is often contingent on the skills acquired in the early elementary grades, has promoted an increased awareness of the need for effective early childhood education programs. As a result, there is an ongoing concern regarding the quality of curriculum practices being demonstrated by educators. Teachers have a responsibility to provide an effective literacy program that considers all essential reading components, including phonological awareness, and leads each child to his or her individual level of reading skill ability.

Teachers who lack a thorough knowledge of the significance of phonological awareness and its associated skills or have inappropriate perceptions toward phonological awareness may be jeopardizing children’s reading skill development. Without a comprehensive understanding of the role of phonological awareness skills within a kindergarten reading program, teachers may omit particular skills from their instructional practice. When specific skills, which are essential in isolation or as part of multiple reading skills, are lacking in a reading program, there is the potential to place some children at risk of reading difficulties. Since phonological awareness is regarded as an important reading skill, and since phonological skill development assists a student to make the transition from oral communication to becoming a reader, it is an essential skill to be incorporated in the kindergarten reading program. The problem is there tends to be a gap in current research pertaining to a description of what is actually occurring within kindergarten classrooms. This gap pertains to how teachers perceive phonological awareness and its importance in an emergent reading program. In addition, current research, which describes the instructional behaviors exhibited by kindergarten teachers
that are associated with phonological awareness, appears to be lacking. For students to benefit from the significance of phonological awareness skill development, these skills need to be apparent in a kindergarten classroom. The theoretical findings need to be evident through practical application to benefit emergent readers.

**Overview of the Methodology**

Descriptive research, utilizing survey and correlation methods, was employed to conduct the quantitative study focusing on the perceptions and behaviors of kindergarten teachers. This combined research method allowed the researcher to present a descriptive profile of data attained from survey questions pertaining to the significance and use of phonological awareness. Kindergarten teachers from a school district in Ontario were the respondents for the study survey. As the study unfolded, the following specific guiding questions were considered:

1. What are the kindergarten teachers’ perceptions toward using explicit phonological awareness instruction in relation to the kindergarten reading program?
2. Do kindergarten teachers perceive phonological awareness skills as a significant component of the kindergarten reading program?
3. What are the instructional behaviors related to phonological awareness that are exhibited by the kindergarten teachers in the classroom?
4. Do the behaviors associated with phonological awareness vary according to the years of experience of kindergarten teachers?
Learning the answers to these guiding questions provided a greater understanding of how theory related to phonological awareness was being exhibited in the kindergarten classroom.

**Definitions of Key Terms**

The following terms utilized within this research are extracted from current literature related to literacy.

*Alphabetic code or alphabetic principle:* An awareness that sounds are mapped onto letters in order to read words (Wang, Porfeli, & Algozzine, 2008).

*At-risk:* Students who demonstrate a weakness in their early reading skill development and, as a result, have the potential to experience greater reading difficulties in the future.

*Early literacy:* The stage of written language acquisition, whereby, young students attain the foundational principles of reading and writing (Aarnoutse, Van Leeuwe, & Verhoeven, 2005).

*Emergent reading skills:* The segment of time between prereading and reading would be considered the emergent literacy phase. Storch and Whitehurst (2002) defined emergent reading skills as “the skills, knowledge, and attitudes that are developmental precursors to reading and writing” (p. 934).

*Intervention:* Mediating in one’s reading skill development to give support to particular difficulties and prevent further difficulties.

*Oral language:* Expressive and receptive communications. Remson (2007) defines oral language as, “a complex network of coordinated knowledge and movement that allows individuals to communicate with each other by talking and listening” (p. 75).
**Phonemic awareness**: The smallest unit of sound is considered to be a phoneme. Phonemic awareness is the understanding that speech consists of these small units of sound put together in sequence (Yopp & Yopp, 2000).

**Phonics**: The written letter representation of a sound, the grapheme, represents phonics instruction. Phonics is “a way of teaching reading and spelling that stresses symbol–sound relationships” (Yopp & Yopp, 2000, p. 131).

**Phonological awareness**: Sensitivity to the sound structure of the English language. More specifically, phonological awareness is a term utilized for an awareness of “any size unit of sound” (Yopp & Yopp, 2000, p. 130). Yopp and Yopp stated phonological awareness is “the ability to generate and recognize rhyming words, to count syllables, to separate the beginning of a word from its ending (…) and to identify each of the phonemes in a word” (p. 130). Phonemic awareness is considered a sub skill of the general term, phonological awareness.

**Provincial standard**: Required reading expectation for Grade 3 test scores. Students who meet the provincial standard are at a level three which indicates that they demonstrate most of the required knowledge and skills. Students who are below level three do not meet the provincial standard, and those students who are at level four exceed the provincial standard.

**Reading readiness or prereading**: The skills required to begin formal reading instruction. These skills include book and print concepts, letter–sound identification (phonics), phonemic awareness (the identification and manipulation of individual sounds), and an ability to communicate through a strong oral vocabulary.
Reading strategies: Activities and procedures that readers engage in to comprehend a written text (Aarnoutse et al., 2005).

Summary

Phonological awareness is a reading skill that has received much attention within the last decade. As a greater understanding of this essential early literacy skill has evolved, the significance of phonological awareness to later reading success has been realized. Phonological awareness provides a link between the oral communication foundation of a nonreader to the written communication foundation of a fluent reader. With explicit phonological instruction from a kindergarten teacher, students are provided with a reading skill that can help them to become effective readers. Kindergarten educators have a critical role in implementing an early literacy program that imparts phonological awareness skill instruction. To attain a greater understanding of how phonological awareness research is being represented within the kindergarten context, it is useful to study the perceptions and behaviors presented in actual kindergarten classrooms.

Chapter One outlined the research contained within this dissertation, which focuses on kindergarten teacher practices in relation to phonological awareness. Specifically, the study sought to answer the primary question, What are the perceptions of and behaviors of kindergarten teachers in relation to phonological awareness instruction? In addition, a secondary question for consideration was: Is there a significant relationship between phonological behaviors and teachers’ years of experience?

The research questions, null hypotheses, background of the study, and professional significance of the study have been stated within this chapter to provide the
framework for the study. Chapter One has concluded with an overview of the methodologies and definitions of key terms to be utilized.

Chapter Two presents a review of literature. After providing an introduction to the purpose of the review and the search process, the review will develop the links from oral language to written language that relate to phonological awareness. Next, Chapter Two examines the literature to further understand the role of kindergarten teachers in providing phonological awareness skill instruction. Chapter Two concludes with the purpose of the research based on current research and a chapter summary.
Chapter Two: Literature Review

Introduction to the Chapter

Since the 1980s, reading-related studies has been saturated with research pertaining to the benefits of using phonological awareness, particularly in relation to a student’s subsequent reading abilities. This chapter presents an examination of studies associated with the significance and use of phonological awareness skill development. The chapter begins with the purpose of the review being stated, followed by the search process. Next, a conceptual framework originating from a review of the literature is presented. An extensive literature review comprises most of the remainder of the chapter. Chapter Two concludes with the purpose of the research, based on findings in the literature review being presented, and a summary of the chapter stated.

Purpose of Review

This literature review investigated current research to determine the use and relevance of phonological awareness as an essential link between oral communication skill development and reading. Educators, who have a more thorough awareness of the role of phonological awareness in reading skill development, are better equipped to meet the learning needs of each student, including those who may be potentially at risk of reading deficits. In order to have a better understanding of how phonological awareness is an essential link between oral communication skills and reading, this section reviews recent literature related to the role and significance of phonological awareness. After attaining a greater understanding of the theories of phonological awareness, the focus of
the review considers literature related to the role of kindergarten teachers in providing explicit phonological awareness instruction in the classroom.

Search Process

To complete the review of literature, a systematic, electronic literature search was conducted within two primary databases: Academic Search Premier (Ebscohost) and Expanded Academic ASAP (InfoTrac). The databases were accessed through Liberty University Library Services in Lynchburg, Virginia. In addition, a search of relevant dissertations and theses was conducted through the ProQuest database. To identify relevant articles for the proposed study, the following key terms were utilized in the computer search: phonological awareness, early reading, reading readiness, prereading skills, emergent literacy, reading, reading skills, early childhood education, oral language development, phonemic awareness, beginning reading, early literacy, teacher attitudes about reading, kindergarten teachers and reading, and oral language skills. The primary search resulted in searches in several additional subcategories related to phonological awareness and early literacy skills. Studies written within the last 10 years were thoroughly examined, with particular consideration given to those studies written in the past five years. It was necessary to also consider a few articles with an earlier date due to the relevant content, which had an impact on later study developments. It was not possible to generate any research findings related specifically to the perceptions and behaviors of kindergarten teachers in relation to phonological awareness.

Conceptual Framework of Literature Review

Phonological awareness has been identified by researchers as an essential link for reading skill development. By building upon the oral skills which students develop from
early infancy, phonological awareness skill instruction allows students to attain a meaningful understanding of how to make connections between spoken words and written words in the progression of reading acquisition. The process begins as kindergarten teachers receive curriculum input based on state, or provincial curriculum expectations. Spear-Swerling, Brucker and Alfano (2005) contended, knowledge about reading-related abilities and reading development (…) is essential to effective reading instruction. For instance, one of the most important and well investigated abilities in early reading is phonological awareness, which involves childrens’ sensitivity to sounds in spoken words, and is foundational for learning to read in an alphabetic language such as English (p. 268).

The phonological awareness knowledge that the teachers attain, or lack from these sources is utilized to develop their perceptions associated with the use and significance of this emergent reading skill. The perceptions, positive or negative, that teachers have regarding phonological awareness will influence the behaviors exhibited in the classroom practices. Research is lacking in relation to the perceptions which kindergarten teachers adhere to regarding the significance and use of phonological awareness. However, this research is needed, for as Bos, Mather, Dickson, Podhajski and Chard (2001) affirmed, “educators who have knowledge of phonological awareness, the alphabetic principle, the structure of language, and phonics instruction and apply it in classrooms can affect student outcomes” (p. 99). Closely associated to the perceptions of teachers, are the behaviors of these educators as they convey the significance of phonological awareness in their instructional practices with their students. These classroom behaviors relate to
the type of instruction that is delivered, the skills focused upon, and the measures of assessment utilized. The learning outcomes which result in the classroom setting can be impacted by the behaviors that teachers demonstrate – behaviors that either support phonological awareness, or lack an emphasis on phonological awareness. Behaviors that support the link between phonological awareness and emergent reading skill development can positively impact a student’s reading achievements by providing students with an effective reading strategy to build upon prior oral communication knowledge.

McCombes-Tolis and Feinn (2008) stated, “research has yielded a growing body of empirical evidence to support a direct relationship between teachers’ knowledge and skills about essential components of effective literacy instruction and student literacy outcomes” (p. 236) (Block, Hurt, & Oakar, 2002; Hall & Harding, 2003). Instructional behaviors that display a lack of the significance of phonological awareness can have a negative impact on early reading development as some students become potentially at risk of reading deficits. Lacking knowledge of English language structure, according to Spear-Swerling et al. (2005), can lead to the following: “teachers may misinterpret assessments, choose inappropriate examples of words for instruction, provide unintentionally confusing instruction or give inappropriate feedback to children’s errors” (pp. 267-268). For teachers’ behaviors to become more reflective of perceptions that support the significance and use of phonological awareness, these educators require a change in their perceptions. Changes in teacher perceptions may be required, as McCutchen et al. confirmed, to “lead to observable and sustainable changes in their practice” (p. 81). Kindergarten teachers need to perceive phonological awareness as a significant and useful component of an emergent reading program that is distinct from
grapheme skills, and best taught in an explicit, intentional manner to benefit the students. A more thorough review of current literature will enhance an awareness of how kindergarten teachers’ perceptions and behaviors associated with phonological awareness link to reading.

The literature review provided in the proceeding section will provide the framework for how teachers perceive the significance and use of phonological awareness, and the behaviors which they adhere to regarding these perceptions. A visual representation of the literature review framework is provided in Figure 1. The links established between oral communication and phonological awareness, and then phonological awareness and emergent reading are reviewed initially. The specific roles which phonological awareness has in reading progress and reading deficits is then identified in the reviewed literature. The literature review section will conclude with an analysis of the literature pertaining to the impact that a teachers phonological awareness instructional behaviors have on students learning. Teachers who begin with a knowledge of phonological awareness, and perceive this reading skill to be significance in the reading process, are more likely to reflect these perceptions in a relevant manner through their instructional behaviors. Impacting behaviors which result from teachers perceptions of phonological awareness include instructional methods in the form of explicit or incidental ways, assessment strategies, such as those utilized for intervention, and activity center practices to reinforce and consolidate skills being learned.
Figure 1

*Conceptual Framework of Literature Review*

Information Regarding Oral Communication Skills

Knowledge Pertaining to Phonological Awareness skills

Comprehension Concerning Emergent Reading Skills

Early Reading skill

Phoneme and Grapheme Distinction

Explicit Instruction

Kindergarten Teacher

Perceptions

Behaviors

Reading Progress

Potential Learning Outcomes

Reading Deficits

Reading Strategy

Reading Predictor
The links established between oral communication and phonological awareness, and then phonological awareness and emergent reading are reviewed initially. The specific roles which phonological awareness has in reading progress and reading deficits is then identified in the reviewed literature. The literature review section will conclude with an analysis of the literature pertaining to the impact that a teachers phonological awareness instructional behaviors have on students learning. Teachers who begin with a knowledge of phonological awareness, and perceive this reading skill to be significant in the reading process, are more likely to reflect these perceptions in a relevant manner through their instructional behaviors. Impacting behaviors which result from teachers perceptions of phonological awareness include: use or lack of instructional methods in the form of explicit or incidental ways; use or lack of formal assessment strategies, such as those utilized for intervention, and use or lack of activity center practices to reinforce and consolidate skills being learned.

**Progressing From Oral Communication to Phonological Awareness**

**Oral communication prior to school.** Oral communication is part of young children’s lives from their beginning. Byrne, Fielding-Barnsley, and Ashley (1996) wrote, “Children are born richly endowed with mechanisms for acquiring spoken language” (p. 119). A child’s early babbling and cooing sounds are his or her first expressions of oral language, a mode of communication. Honig (2007) claimed, babblings “are the baby’s first attempts to use language to communicate meaning with their special adults . . . these precursors of words are worthy of attention . . . as the toddler struggles to share information” (p. 584). As young children hear vocabulary,
repeat familiar sounds, and discover new sounds, their oral communication skills
progress into the formation of words.

Literacy training begins early in one’s life in incidental and informal ways. The
National Institute of Child Health and Human Development Child Care Research
Network (NICHD, 2005) claimed, “There is increasing recognition that literacy
development starts long before children begin formal instruction in school” (p. 428). The
skills that children acquire or lack before starting kindergarten will impact their reading
readiness. As children enter formal education, they vary in relation to levels of language
acquisition based on prior literacy experiences, which may be influenced by a variety of
factors including: language barriers, socioeconomic status, family history, or preschool
experience. Children who enter school with English as a second language have language
barriers that may alter their early literacy learning. These children require opportunities
to hear and speak the English language prior to understanding the sound structure of
words.

Socioeconomic status and family history can also influence language acquisition.
Honig (2007) noted there are differences, which continue to exist, in “the social world of
language for many children living in more difficult socioeconomic circumstances” (p.
604). Education of parents and socioeconomic conditions are at times closely connected;
as a result, the education levels and economic levels of a household can impact a child’s
language acquisition. Children living in poorer conditions tend to talk less and have
fewer opportunities for language development. Honig continued, “Social class
differences have implications for differential development of child language power” (p.
604). These differences become evident as the children begin to transfer their oral skills
into early literacy skills. Language acquisition can also be influenced by a child’s experiential background. Children who attend preschools may have had training in oral language development prior to entering kindergarten, whereas, students who go directly from the home context to kindergarten may or may not have had any deliberate oral language instruction.

During the early years of life, listening and speaking are the two literacy components most children learn and demonstrate. Through these receptive and expressive literacy forms, children also go from repeating sounds and words with no comprehension to developing an understanding of the words heard. As children enter school, a transition begins in which one’s oral communication skills are transferred into a written form.

**Oral communication link to reading.** Shaughnessy, Sanger, Matteucci, and Ritzman (2004) and Blaiklock (2004) supported a strong relationship between oral language skills and reading skill development. An awareness of the relationship of phonemes to graphemes initiates as students begin to transfer their oral skills into foundational literacy skills. The oral language skills developed prior to entering school are influential to the manipulation of phonemes exercised through phonological awareness tasks. The kindergarten school year provides opportunities for the development of phonological awareness skills as a transition from oral communication to written communication occurs. The NICHD (2005) reported, “Oral skills feed into code skills such as . . . phonological awareness” (p. 429).

With an understanding of sounds and the manipulation of sounds, a framework is established for a young student to learn to read. It is during the kindergarten school year
that many students show significant progress in their early reading skill development. These skills are foundational to a young learner’s reading progress. It has been noted that the key foundational skills for reading are acquired during a student’s first three years in school (Meiers & Khoo, 2006). Studies indicate that early reading skills have an impact on one’s overall achievement—an impact that becomes evident in the later elementary school years (G. W. Phillips, 2002).

**Relationship of Beginning Reading to Phonological Awareness**

The relationship between reading and phonological awareness has been supported by evidence in many studies (Berg & Stegelman, 2003; Carroll & Snowling, 2004; Savage & Carless, 2005; Sprugevica & Hoien, 2003). Phonological awareness is an essential literacy element that connects oral communication to reading. Van Bon and Van Leeuwe (2003) noted, “The successive graphemes of the written word represent the successive phonemes of the spoken word” (p. 195). Prior to school, most children have had incidental exposure to phonemes through what they have heard or said. Phonological instruction, as part of a kindergarten reading program, connects what has been learned incidentally with what is learned explicitly as the sounds are given a visual representation and meaning. Snider (2001) suggested phonological awareness “forms a bridge that enables naïve readers to translate the squiggles on the page into the spoken language that they already know” (p. 203).

Since children have engaged in incidental phoneme use from an early age, educators have the opportunity to continue to build upon this prior knowledge base by making purposeful connections between oral communication and written communication. Supporting children’s early reading development with phonological awareness activities
is a manner in which an oral-to-written connection is attained. The National Association for the Education of Young Children (NAEYC, 1998) reported, “There is accumulated evidence that instructing children in phonemic awareness activities in kindergarten (and first grade) enhances reading achievement” (p. 6). The presence or absence of oral communication skills will have an impact on the early reading skill development of young learners. Muter, Hulme, Snowling, and Stevenson (2004) revealed, “There is now a great deal of evidence showing that children’s early progress in learning to read depends critically on their oral language skills” (p. 665). As children are becoming emergent readers, phonological awareness is a foundational skill that significantly impacts reading development.

**Importance of an Effective Emergent Reading Program**

Emergent literacy skills provide a foundational framework for successive reading skill development. Storch and Whitehurst (2002) defined emergent reading skills as “the skills, knowledge, and attitudes that are developmental precursors to reading and writing. . . . The notion of emergent literacy implies a continuum between prereading and reading” (p. 934). Skills that would be considered part of emergent reading include print awareness, phonological awareness, initial awareness of grapheme–phoneme relationships, and vocabulary development. Although the skills may be focused upon independently, each one is linked to reading in a progressive, integrated manner.

With an increased focus on the importance of early childhood education, educators are striving to implement effective, emergent reading programs. Bursuck et al. (2004) contended, “Effective reading instruction begins early and includes instructional strategies that develop phonological awareness, [and] alphabetic understanding” (p. 303).
To be effective, each beginning reading skill needs to be given explicit consideration, as it is incorporated into a reading program in a manner that is developmentally appropriate and meets each child’s unique learning needs. Kirkland and Patterson (2005) asserted, “Authentic and relevant curricula engage children in the learning process as they acquire language” (395). In addition, Kirkland and Patterson stated, “The development of oral language is facilitated through a carefully planned environment that promotes thoughtful, authentic opportunities” (p. 395). Young students require opportunities for working with oral language in new ways. Manipulating sounds and having access to written representations of letters allow students occasions to participate in discovery and skill-building as they learn more about the English language. Providing the language structures that bridge the gap between one’s oral communication skills and written communication skills is a vital component of the kindergarten reading program. These foundational skills are often cited as impacting one’s future reading abilities. Hemphill and Tivnan (2008) contended, “Both oral language and the emergent literacy skills that develop in the preschool years [and kindergarten] are important foundations for later literacy” (p. 427). During the kindergarten years, students will acquire the emergent reading skills necessary for beginning reading (see Appendix E). An effective emergent reading program will include all of the necessary skills in an authentic, intentional manner to support a young learner’s reading skill development—from speaker to reader.

**Preventative Reading Strategies to Decrease Young Learners At Risk of Reading Difficulties**

With the introduction of initiatives such as *Reading First* (U.S. Department of Education, 2006) and *No Child Left Behind Act* (2001) and reports such as the *Early
Reading Strategy (Ontario Ministry of Education, 2003), an increased awareness of the
importance of learning to read during the early elementary years has resulted. The goal
of these federal government initiatives and provincial reports has been to decrease the
amount of illiteracy by providing resources to enhance reading skill development.

Illiteracy rates can be surveyed in statistics related to Grade 4 achievement. In A
Guide to Education and No Child Left Behind, the U.S. Department of Education (2004)
wrote, “After four years of public school, most students perform below proficiency in
both reading and mathematics” (p. 11). Those students who perform “below proficiency”
in relation to reading would be considered at risk for reading difficulties. At-risk in the
current context is based on a student’s success in attaining or not attaining the required
skills during one’s first years of schooling. For the current study, at-risk refers to those
students who do not meet grade-level expectations in kindergarten programs. It is
evident in research that students who are considered at risk in the early years of formal
education often continue to have reading struggles in the succeeding years (Hemphill &
“the persistence of phonological processing deficits into adulthood has been investigated
by several researchers. . . . such research supports the position that a persistent deficit in
phonological processing is the basis for [reading disabilities]” (p. 394). This statement is
supported by several researchers, including Catts et al. (1999), Cavanaugh, Kim,
Wanzek, and Vaughn (2004), Hurry and Sylva (2007), B. M. Phillips et al. (2008),
Schuele and Boudreau (2008). Therefore, phonological awareness skills require
intentional implementation in the early years of one’s formal education.
Decreasing or eliminating the number of young learners who are potentially at risk for reading difficulties involves prevention and intervention considerations. Bishop (2003) remarked, “Empirical evidence reveals that kindergarten is a critical time for early identification and prevention” (p. 190). Instruction in appropriate decoding skills, derived from a focus on phonological awareness, can assist kindergarten students in early word identification. Effective early reading strategies are critical for the prevention of reading difficulties.

In addition, early identification of reading deficits is essential to lower illiteracy rates. Early identification and intervention, for learners who are potentially at risk of reading difficulties, can be initiated through explicit phonological awareness instruction. Whiteley, Smith, and Connors (2007) asserted, “Weak phonological skills can be developed through explicit instruction, which can then have a positive effect on reading and spelling” (p. 250). The potential to decrease rates of illiteracy amongst elementary students exists when phonological awareness skills are part of an effective, emergent reading program at the earlier stages of formal schooling.

Phonological awareness provides current support for students who are in the process of developing literacy structures. As well as being utilized to prevent future reading difficulties for some students, implementing meaningful phonological awareness tasks into an emergent reading program may also be utilized as a form of early intervention. By implementing phonological awareness skills into the emergent reading program, literacy deficits can be identified and addressed in the initial stages of reading skill development. Al Otaiba et al. (2008) stated, “our increasing knowledge about the difficulty of remediating poor reading achievement has led to a heightened focus on
preventing reading difficulties by helping children enter first grade with established emergent literacy and reading readiness skills” (p. 282). Students who enter Grade 1 prepared to read have a greater opportunity to become successful readers throughout the elementary school years. As an essential reading skill, phonological awareness can assist all students in some manner on their journey to becoming readers. Carroll and Snowling (2004) reported, “It is widely accepted that learning to read depends on phonological skills and the corollary of this is that children who have phonological difficulties are at risk of reading problems” (p. 631). The relevance of phonological awareness becomes more apparent as a more thorough understanding of its characteristics is examined.

**The Reading–Phonological Awareness Connection**

Reading is a multifaceted curriculum area comprised of a variety of skills that are integrated in the process. Kauerz (2002) summarized the relevance of the five essential reading skills in the following statement, “Research has identified the core critical skills that young students need to become good readers” (p. 1). According to the National Reading Panel (2000), the five scientifically-based essential components of effective reading instruction include: phonemic awareness, phonics, vocabulary development, reading fluency, and reading comprehension strategies (p. 3). Phonemic awareness, as a part of phonological awareness, is one of the identified essential skills in reading.

The link between reading and phonological awareness has been recognized since early theories about phonological awareness use were described. Ball and Blachman (1991) acknowledged, “It has been suggested that developing an understanding of the link between the sounds of speech (phonemes) and the signs of print (letters) is the basic task facing the beginning reader and writer” (p. 51). As understanding of phonological
awareness use has evolved, deeper understanding of the reading–phonological awareness connection has surfaced in reading literature. For example, Aarnoutse et al. (2005) examined the early literacy skills that have an impact on comprehension, word recognition, and spelling in Grade 2, and phonological awareness was one of the four essential skills identified. Similarly, Sprugevica and Hoien (2003) confirmed, “There is now a substantial body of evidence indicating that phonological skills, and especially phonological awareness, is one of the best predictors of the speed with which children acquire reading accuracy and fluency” (p. 119). Current reading-focused research details findings that reveal the connection phonological awareness has with reading skill development. Many of the studies presented in literature support the positive connections between phonological awareness and learning to read.

Kirby et al. (2003) emphasized the role of phonological awareness in relation to reading development when they wrote, “There is considerable evidence that phonological awareness . . . is a key component in the development of reading ability and that poor PA is a, or perhaps the, core deficit in reading disability” (p. 453). The findings of Kirby et al., add to the growing knowledge that phonological awareness is an essential skill in learning to read.

Similar findings were attained in a study by Anthony and Lonigan (2004) regarding the relationship of phonological awareness to the acquisition of reading. The outcome of their study signified that “training children in phonological awareness positively affects reading” (p. 43). There are positive effects when phonological awareness skills are present and negative effects when these skills are absent.
Gray and McCutchen (2006), regarding the role of phonological awareness in beginning reading, revealed the relationship that phonological awareness has specifically in relation to decoding. Gray and McCutchen contended, “Children who are better able to identify sounds within words can more easily map letters onto those sounds” (p. 325). Phonological awareness skill development is the oral component that bridges to reading skill development, the print component.

Whiteley et al. (2007) indicated how phonological awareness as an intervention strategy can assist children in their reading. Whiteley et al. asserted phonological awareness “supports the acquisition of the alphabetic principle which, in turn, underpins the development of the essential skill of automatic word recognition” (p. 249). Phonological awareness is presented as an essential part of the reading process, which builds upon the integration of various skills.

The connection of reading and phonological awareness is evident in recent research. Each of the studies identified enhance the discussion of the reading–phonological awareness link. As the literature is investigated further, it becomes evident that phonological awareness has specific functions with its reading connection.

**Specific Role of Phonological Awareness in Reading**

As literacy literature was examined, it has become apparent that there are two key roles that phonological awareness has in reading acquisition, including: a strategy for decoding and a predictor of subsequent reading abilities. Phonological awareness as a reading strategy enables students to have a useful skill that will assist them in decoding words and will give them a more thorough understanding of the phoneme–grapheme association in words. As a reading predictor, phonological awareness provides educators
with a reading skill that can be measured to indicate reading skill abilities, as well as potential reading deficits.

**A reading strategy.** Within the reading-phonological awareness connection, young children who have instruction in how to hear, identify, and manipulate sounds in the English language have a strategy to assist them in their reading development. By transferring oral language skills to beginning reading requires skills—in a purposeful manner—students are provided with a greater understanding of the process. Building upon what the students are already dominantly using, their oral vocabulary, phonological awareness skill development appears to be a natural progressive measure for learning to read.

Focusing on the smallest unit of sound, a phoneme, students have an opportunity to associate a sound with a graphic representation of a letter. Connections made by students between sounds and letters allow for an understanding of the alphabetic code of the English language to begin to develop. Shankweiler and Fowler (2004) argued, “The phoneme is the most critical segment for grasping the alphabetic principle and learning to use it” (p. 487). Recognizing that each of the letters has a specific sound assists students when words are introduced and need to be decoded. Various researchers maintain that learning to read involves mapping letters to their individual phonemes (Byrne et al., 1996; Foy & Mann, 2006; Gray & McCutchen, 2006). Aarnoutse et al. (2005) concurred, “Recognition of the fact that words are composed of sounds is important for the following step within the period of early literacy, namely learning to identify words” (p. 254). Phonological awareness skill development provides a strategy that prepares
students to move from a form of oral communication, which they already utilize, to the next step which is putting oral sounds into written form.

**A reading predictor.** In addition to the role of phonological awareness as a reading strategy, this early literacy skill can also be used to predict reading abilities and deficits. Research is inundated with studies that validate the use of phonological awareness as a predictor of present and future reading achievement (Ehri et al., 2001; National Reading Panel, 2000; Oktay & Aktan, 2002; Sprugevica & Hoien, 2003). Researchers confirmed the significance of phonological awareness as a predictor of reading skill ability. For example, Wang et al. (2008) concurred, “Developing phonemic awareness . . . is critical to learning to read and spell successfully” (p. 403). Similarly, Torgesen et al. (1999) ascertained, “Perhaps the most important single conclusion about reading disabilities is that they are most commonly caused by weaknesses in the ability to process the phonological features of language” (p. 579). Furthermore, O’Connor (1999) wrote, “Studies designed to identify the factors that influence reading development . . . converge on phonological awareness and letter knowledge as the strongest among the kindergarten predictors” (p. 203). Students who have been engaged in reading programs that contain explicit phonological awareness instruction are more successful in their reading achievements than those who have had incidental exposure or have had no instruction (Savage & Carless, 2005). Incorporating phonological awareness into an emergent reading program, as a predictor of reading success, may identify those students who are potentially at risk of reading deficits at an early stage. With early identification, students who appear to have reading deficits can be given meaningful intervention to
assist with their individual learning needs. Thus, the educational research shows the importance of phonological awareness as a predictor of reading achievement.

**Significance of Phonological Awareness for Reading Skill Development**

Research related to early literacy skill development is saturated with evidence of the role of phonological awareness as an essential skill for reading achievement (Share & Gur, 1999; Snider, 2001; Torgesen, 2004). As kindergarten students begin to engage in early literacy activities for skill building, opportunities for phonological awareness instruction are necessary to assist in the progression from nonreader to emergent reader. When students have an opportunity to understand how and why sounds are converted into text, more meaning is derived in the reading process. A study by Torgesen, Wagner, and Rashotte from several years ago initiated discussions related to the relationship between phonological awareness and reading. The authors of this study stated, “Children who are relatively strong in phonological awareness in kindergarten before reading instruction begins, typically learn to read more easily than those with relatively delayed development in this area” (Torgesen et al., 1994, p. 276).

Current research continues to build upon the idea that phonological awareness skill development is essential to reading. For example, Cassady et al. (2008) claimed, “the standard view is that early success in phonological and phonemic awareness predicts subsequent reading ability” (p. 510). Reading occurs progressively, and phonological awareness is one of the skill components that are incorporated into the process. Cassady et al. stated, “Reading skill develops progressively from basic phonological processing to phonemic awareness and eventually to independence in decoding” (p. 511).

Phonological awareness provides a critical link between the oral language skills of a
preschooler to the reading abilities of an elementary school student. The significance of phonological awareness as a strategy in reading development and a predictor of reading achievement for present and future reading becomes more apparent through an investigation of literacy literature.

**Relevance of Phonological Awareness Instruction for Now and the Future**

Several research studies acknowledge the relevance of phonological awareness instruction for emergent readers in kindergarten (Cassady et al., 2008; Hemphill & Tivnan, 2008; Snider, 2001). O’Connor (1999) alleged, “When children have phonological awareness, discovering ways in which spoken language is encoded by print becomes meaningful” (p. 203). Students who are provided with opportunities to use phonological awareness skills are being provided with foundational skills upon which to build as greater understandings of language structures are acquired.

Phonological awareness instruction has the potential to be utilized in the present to prevent reading deficits by providing students with an effective reading strategy. In addition, phonological awareness has the potential to be employed as a predictor of future reading success. The immediate benefits of phonological instruction on reading skill development relate to the availability of an effective reading strategy for students to utilize as they are learning how to read. Castles and Coltheart (2004) stated, “A large amount of evidence has now been accumulated to show that the more knowledge children have about the constituent sounds of words, the better they tend to be at reading” (p. 79). Students who are able to apply phonological information to their reading are better equipped to decode new vocabulary in written text. In addition, they will likely have a greater understanding of how the alphabetic code works. Blachman et al. (2004) wrote,
“The evidence is compelling that early reading programs that emphasize the connections between the phonological structure of spoken words and the alphabet can help close the gap between children who struggle to learn to read and those who learn to read easily” (p. 444). Students who have had explicit instruction in phonological awareness will likely develop a greater awareness of the relevance of phoneme–grapheme links in the process of learning to read, which also gives more meaning to the text. West, Denton, and Reaney (2001) concluded, “Across [the] first year of schooling, children will acquire the knowledge and skills that will prove integral to their future success in school and in life” (p. v). Young learners who understand more about the reading process are better equipped to learn to read earlier and decrease the potential for learning deficits in the future.

Over the last several years, researchers have continued to confirm the relationship between phonological awareness and future reading success (Duff et al., 2008; Wilson & Lesaux, 2001). Kim (2004) contended, “Understanding the sound structure of language (phonological awareness) is a strong predictor of later reading success” (p. 7). Furthermore, Snider (2001) confirmed, phonological awareness “among prereaders is a powerful predictor of future success in reading and spelling” (p. 203). In addition to providing students with skills for reading skill development in the future, young children who have opportunities to engage in authentic, meaningful phonological awareness activities are developing skills that may assist them in the prevention of future reading deficits. Kim declared, “Most reading researchers widely believe that phonological processing abilities are crucially related to reading and that phonological awareness is the core deficit of children of RD [reading difficulties]” (p. 3). Weak phonological
awareness skills have the potential to attribute to weak decoding skills, which are required in learning to read.

Students who struggle with emergent reading skills have the potential to have reading deficits beyond the kindergarten school years. Juell (1988, as cited in Yeh, 2003) noted, “Children who were poor readers at the end of first grade had an 88% probability of remaining a poor reader at the end of fourth grade” (p. 514). This is confirmed in a study by Torgesen (2004), who wrote, “Children who are destined to be poor readers in fourth grade almost invariably have difficulties in kindergarten and first grade with critical phonological skills” (p. 1). The impact that phonological awareness has to future reading achievement enhances the understanding of the significance of this skill to reading development. Phonological awareness has the potential to have a significant role in reading abilities in the present as well as the future. Early childhood educators have an important role in assuring that phonological awareness is incorporated into the kindergarten reading program to minimize the number of students who will become potentially at risk of reading deficits and prepare all students to meet with reading success.

**Kindergarten Teachers’ Role in Providing Essential Reading Skills**

Kindergarten educators have a critical role in developing and implementing various instructional strategies and assessment measures to effectively teach and transfer the necessary phoneme skills to young learners. In the report *Early Reading Strategy* (Ontario Ministry of Education, 2003), the authors wrote, “A major consensus of research is that the ability of teachers to deliver good reading instruction is the most powerful factor in determining how well children learn to read” (p. 10). The kindergarten school
years are significant for the subsequent elementary school years. Catts et al. (1999) noted from their study results that “73% of our poor readers [in Grade 2] had discernable problems in some aspects of language processing in kindergarten” (p. 351). Studies indicate that early reading skills have an impact on one’s overall achievement—an impact that becomes evident in the later elementary school years (G. W. Phillips, 2002). Therefore, a teacher’s role in providing the essential skills within the kindergarten reading program is significant. To provide an effective literacy program, early childhood educators should have a knowledge of each of the essential reading skills, including phonological awareness.

**Kindergarten Teachers’ Knowledge of Phonological Awareness**

Reading skill development in the early years of formal education is critical for future reading achievement. Educators who are going to provide an effective emergent reading program need to have a thorough understanding of each of the individual reading skills to be taught and the reading process. Since phonological awareness is an essential early reading skill, kindergarten teachers need to be knowledgeable in how the oral language of the students can be purposefully transferred into an understanding of written communication. Several researchers have acknowledged that teachers who are instructing children in phonological awareness should have a solid understanding of language acquisition from speech to print (Fielding-Barnsley & Purdie, 2005; Mather et al., 2001; NAEYC, 1998; Shankweiler & Fowler, 2004).

It is also beneficial for kindergarten educators to demonstrate an awareness of how to implement an effective, developmentally appropriate reading program that includes explicit phonological awareness skills. Shankweiler and Fowler (2004)
contended, “It is critical for teachers and others concerned with teaching beginning readers to appreciate that children rarely discover phoneme segments spontaneously from everyday experience with spoken language, but most can readily acquire phoneme awareness . . . with instruction” (p. 506). It is essential for educators to understand how to provide skill-building for each young learner regardless of reading ability. Furthermore, it is important for kindergarten teachers to comprehend how to prepare students for the next steps in reading skill development by bridging new information to current understandings. With a thorough understanding of the role and significance of phonological awareness, educators can have a positive impact on the reading acquisition of the learners entrusted to them.

To become knowledgeable about phonological awareness usage, educators can review current research, extend their learning by completing advanced degrees or university courses in reading, or participate in professional development opportunities. The outcome of having a more extensive understanding of phonological awareness is evident in findings by Ouellette and Senechal (2008). These researchers concluded, “Recent findings have shown that teachers who participated in workshops on how to implement explicit phonological awareness training in their kindergarten classrooms showed increased knowledge, changed their practices, and had children with greater literacy skills in grade 1” (p. 900). Teachers who understand phonological awareness more thoroughly are able to apply their understanding in practical ways in the classroom. As a result, the students in these classrooms benefit from a reading program that incorporates essential phonological reading skill development.
In a study by Spencer, Schuele, Guillot, and Lee (2008), the researchers asked, “Do educators have sufficient knowledge and skill to implement the instructional and intervention practices that are likely to be effective with all learners, particularly those children who struggle to learn to read?” (p. 512). According to many studies in reading skill development, the answer appears to be “no.” Research clearly indicates that there are many educators of young children who do not have sufficient knowledge to present an effective reading program that includes phonological awareness (Abbott, Walton, & Greenwood, 2002; Cunningham, Perry, Stanovich, & Stanovich, 2004; Fielding-Barnsley & Purdie, 2005). Fielding-Barnsley and Purdie stated, “There is evidence suggesting that many teachers are not adequately prepared for the task of teaching reading to young children because they understand too little about spoken and written language structure” (p. 66). Furthermore, Cunningham et al. indicated “a notable lack of knowledge across several important domains that are theoretically linked to beginning reading instruction” (p. 160).

The lack of understanding exhibited by the teachers may be attributed to insufficient knowledge in the following areas: the role of phonological awareness, the specific components of phonological awareness, the significance of phonological awareness to reading skill development, and how to effectively implement phonological awareness instruction into a beginning reading program. In addition, there may be a misunderstanding of the distinction between phonological awareness and phonics. Yopp and Yopp (2000) concurred, “Some educators confuse the term phonemic awareness with . . . phonics and believe that a new label has been invented for an old idea” (p. 130). Teachers need to understand that the former focuses on an oral component, while the
latter focuses on the written representation. With a clear understanding of the characteristics and significance of phonological awareness in an emergent reading program, teachers have the potential to affect the literacy learning in their classroom. Teachers who have not had phonological awareness training as part of their teacher education programs or through hands-on professional development opportunities may lack the necessary information to provide students with an effective beginning reading program. The knowledge that educators have or lack can have an impact on the perception that they have about phonological use in their kindergarten classrooms.

**Educators’ Perception of Phonological Awareness as an Essential Beginning Reading Skill**

For kindergarten teachers to be agents of change who limit or decrease the number of young students who struggle with reading deficits, they need to demonstrate effective, sustaining instructional practice in the classroom. Effective instruction related to phonological awareness will allow a student to move from using primarily an oral means of communication to emerge as a reader. To provide authentic, explicit, phonological awareness skill instruction, it is beneficial for teachers to perceive phonological awareness as an essential component of the kindergarten reading program and reflect this perception in their daily classroom practice. It has become apparent through the literature review that studies are lacking in relation to the perception of phonological awareness that kindergarten teachers embrace.
**Instructional Behaviors Exhibited by Kindergarten Teachers in the Classroom**

**Context**

The knowledge and perceptions that an educator has regarding phonological awareness are likely to be reflected through instructional practice in the kindergarten classroom. Bursuck et al. (2004) contended, “Evidence of the oft-mentioned research-to-practice gap abounds: Classroom teachers have difficulty accessing the latest research, often find that it is of little relevance to their teaching, and are reluctant to faithfully implement teaching procedures designed by researchers” (p. 304). Teachers who have misconceptions about phonological awareness, or lack an understanding of the role and relevance of the emergent reading skills may avoid instruction related to these areas in their kindergarten classrooms.

The instructional behaviors associated with phonological awareness, which would be expected to be part of a kindergarten classroom, are identified in current research. Schuele and Boudreau (2008) asserted, “Classroom-based phonological awareness instruction should be provided to all . . . kindergarten children; this instruction aims to establish a foundation of ability on which to build decoding and spelling skills in the early elementary grades” (p. 7). The instruction provided to students needs to be meaningful so that an understanding of the sound structure is obtained in conjunction with an understanding of word meanings.

Explicit, systematic phonological instruction is cited in research as an effective method for teaching students about the sound structure of words. Studies by B. M. Phillips et al. (2008), Spencer et al. (2008), and McCutchen et al. (2002) support explicit phonological instruction as the essential instructional method to be employed in the
classroom. Meaningful activities and engaging experiences that focus on phonological awareness skills allow students to attain a greater understanding of the phoneme–grapheme connections. Torgesen (2004) acknowledged,

The exact mix of instructional activities that is most effective almost certainly varies depending on the individual needs of each struggling reader. Furthermore, the range of instructional methods that can be used to effectively teach specific skills to struggling readers may also be quite broad (p. 7).

Regardless of the methods employed, it is the role of the kindergarten educator to plan, implement, and assess the phonological awareness learning that is to occur in the kindergarten classroom. Phonological awareness instruction that is purposefully planned, intentionally implemented, and appropriately assessed will have an impact on the literacy development that occurs in the classroom context.

Research findings that address the actual instructional behaviors associated with phonological awareness in kindergarten classrooms are lacking. Pressley and Allington (1999) noted, “We also need more research that focuses on teaching in primary classrooms the many tasks and skills that are beginning literacy” (p. 22). Acknowledging the important role that reading skill development has on present and future reading abilities of young students, it is beneficial to have a more extensive understanding of how research is being effectively implemented into kindergarten classrooms. It has become evident that there is not sufficient research to describe what is actually happening in kindergarten classrooms in relation to phonological awareness—the theory into practice connection is not well depicted with current study findings.
Purpose of the Research Based on Current Research

An investigation of recent research related to early literacy skill development revealed that phonological awareness is an essential skill to be addressed within a kindergarten reading program. As the role and significance of phonological awareness has been considered, it has become apparent that there is a distinctive connection between phonological awareness and reading skill development. As a key component of emergent reading, phonological awareness has two specific roles. Phonological awareness is an essential reading strategy and an effective reading achievement predictor. As a predictor of reading achievement, phonological awareness can be utilized in the prevention and intervention of reading difficulties. A kindergarten teacher has an important role to provide explicit phonological awareness skill instruction in relation to teaching, prevention, and intervention strategies. Educators should have a thorough understanding of the characteristics, role, and significance of phonological awareness to plan and implement effective reading programs in the kindergarten classroom.

The literature review related to phonological awareness usage and significance has revealed that there tends to be two gaps in research—one associated with kindergarten teachers’ perceptions of phonological use in the classroom, and the other related to how the role and significance of phonological awareness is being reflected in kindergarten teachers’ instructional behaviors. Based on these gaps in the research, the purpose of this study was to present a descriptive profile of the current perceptions and behaviors associated with phonological awareness usage obtained from a sample of kindergarten teachers.
Summary

The literature review presented in Chapter Two acknowledged the significance that phonological awareness has in reading skill development. Several topics that relate to the reading–phonological awareness connection have been focused upon throughout this chapter; these include progressing from oral communication to phonological awareness, the relationship of beginning reading to phonological awareness, and the importance of an effective reading program. Phonological awareness instruction has the potential to fulfill two significant roles in reading. The two roles identified in the literature include phonological awareness as a reading strategy and phonological awareness as a reading predictor. Studies indicate that there is a link from oral language skills to early reading skills, which encompasses the need for explicit phonological awareness instruction. An effective emergent reading program that engages students in phonological awareness is cited as one that is intentionally planned and implemented by kindergarten teachers. Educators in kindergarten classrooms have a critical role in providing foundational reading skill instruction to support the early reading endeavors of students.

Two gaps in reading literature have become apparent through this literature review. First, there is a lack of research regarding the perceptions that kindergarten teachers have related to the significance and use of phonological awareness. Second, there is information lacking in research associated with the actual behaviors being exhibited by kindergarten teachers in the classroom context. The focus of this study was to utilize descriptive research, in the form of survey and correlation methodologies, to address the primary question, What are the perceptions of and behaviors of kindergarten
teachers in relation to phonological awareness instruction. In addition, the secondary question considered was, Is there a significant relationship between phonological behaviors and teachers’ years of experience? The purpose of this study, which has become apparent through the gaps identified in the literature review, has been identified in the latter section of this chapter.

The methodology of the study is discussed in Chapter Three. The chapter begins with a description of the general methodology. This section is followed by the research context and the research design. As the chapter unfolds, the participants for the study and the instrumentation are identified. Chapter Three continues with the procedures for the study being specified, including the data collection method and the data analysis. The chapter concludes with a summary of the methodology for the research.
Chapter Three: Methodology

Introduction to the Chapter

The methodology utilized for the study is addressed within Chapter Three. A review of recent literature confirmed the significance of incorporating phonological awareness instruction in a kindergarten reading classroom for present and future reading success. Teachers who are aware of how to effectively implement phonological awareness into the classroom context assist their students in understanding how speech is transferred and represented in print. Due to a gap in research related to how kindergarten teachers actually perceive the significance and use of phonological awareness, the current study was developed to provide a greater awareness of how theory is being revealed through practice in kindergarten classrooms.

Descriptive research, combining survey and correlation methodologies, was utilized as the quantitative method, which focused on the primary research question, What are the perceptions of and behaviors of kindergarten teachers in relation to phonological awareness instruction? In addition, these combined methods were utilized to consider the secondary research question, Is there a significant relationship between phonological behaviors and teachers’ years of experience? Within this chapter a description of the methodology, the research context, and the research design are identified. Furthermore, the participants for the study and the instrumentation employed for the study are conveyed more specifically. Within the chapter, the procedures for data collection and data analysis are provided. Chapter Three concludes with a summary.
Description of the General Methodology

A descriptive research design, containing survey and correlation methodologies, was utilized for this study to answer four guiding questions related to the research question. The four questions are as follow:

1. What are the kindergarten teachers’ perceptions toward using explicit phonological awareness instruction in relation to the kindergarten reading program?
2. Do kindergarten teachers perceive phonological awareness skills as a significant component of the kindergarten reading program?
3. What are the instructional behaviors related to phonological awareness that are exhibited by the kindergarten teachers in the classroom?
4. Do the behaviors associated with phonological awareness vary according to the years of experience of kindergarten teachers?

These four questions provided the framework to address the fundamental focus of the study.

The study contained three specific null hypotheses associated with the secondary research question. These null hypotheses related to three particular behaviors considered within this study that were associated with phonological awareness -- formal assessment, skill instruction and center use. The three null hypotheses included:

1. There is no significant difference between the frequency of behaviors associated with the use of formal phonological awareness assessments and the groups, years of teaching experience and years of kindergarten teaching experience.
2. There is no significant difference between the frequency of behaviors associated with instruction of specific phonological awareness skills, and the groups, years of teaching experience and years of kindergarten teaching experience.

3. There is no significant difference between the frequency of behaviors associated with the incorporation of phonological awareness activity centers, and the groups, years of teaching experience and years of kindergarten teaching experience.

The null hypotheses that were utilized were two-tailed (non-directional) to observe both increases or decreases in the outcome variable.

Types of questions contained on the mail-in survey included a Likert scale to rate the level of agreement for several statements (related to perceptions), a rating scale to indicate the level of frequency for several instructional items (related to behaviors), five multiple-choice questions to support data attained in the Likert scale, and one open-ended item to allow participants an opportunity to express additional information not addressed within the instrument.

It has become apparent that there is a gap in the literature related to the perceptions and behaviors that kindergarten teachers adhere to in relation to phonological awareness instruction. The data attained through the survey items, which was acquired from a sample population of kindergarten teachers, provides a descriptive profile of the actual perceptions and behaviors that these educators demonstrate in their classroom experience.

**Research Context**

The study was conducted in a regional school district, in a large city with a population of approximately 244,000 residents, in Ontario. The regional school district
encompasses a large area that consists of schools in various demographic locations, including inner city, urban, suburban, and rural. There are 85 elementary schools within this public school district, with 243 kindergarten teachers employed. There are two types of elementary schools: those with students from junior kindergarten to Grade 6 and those with students from junior kindergarten to Grade 8. The student population in each school varies from approximately 100 to 1,000. Each school consists of students from varying ethnic and socioeconomic backgrounds. The number of kindergarten teachers represented at each school site varies from one to six according to the size of the school population. For purposes of confidentiality, the school district will be referred to as the target population. Data were retrieved from kindergarten teachers from diverse locations in this large target population.

**Research Design**

Descriptive research, incorporating survey and correlation methodologies, was the quantitative research method utilized for the current study. This combined method allowed kindergarten teachers to disclose their perceptions and behaviors related to phonological awareness in an anonymous, nonthreatening manner. An instrument was designed to focus directly on the perceptions and behaviors of kindergarten teachers in a particular school district. The data obtained from the instrument were utilized to provide a descriptive profile of the perceptions and behaviors associated with the use and significance of phonological awareness for the kindergarten target population.

The instrument that was designed contained two major types of items were employed—a Likert scale and a rating scale—as well as two minor types of items were utilized—multiple-choice and open-ended. The Likert scale was beneficial to obtain
descriptive data to observe the frequencies of responses for each teacher’s response to each individual statement. According to Ary et al. (2006), “a Likert scale assesses attitudes [or perceptions] toward a topic by presenting a set of statements about the topic and asking respondents to indicate for each whether they strongly agree, agree, are undecided, disagree, or strongly disagree” (p. 227). A Likert scale is well suited to perception statements since it allowed respondents to indicate, on a continuum, the level of agreement that they have toward a specific topic. For the current study, the 5-point Likert scale provided the respondents with an opportunity to indicate their level of agreement for several statements related to the significance and use of phonological awareness. The current instrument was designed with items which would express both favorable perceptions, and unfavorable perceptions, in random order, of the significance and use of phonological awareness. A Likert scale was useful to assess these perceptions of respondents in a manner in which a numerical value, in the form of a frequency number and percentage, could be compiled for descriptive purposes.

As the focus of the instrument transferred from perceptions to behaviors, a rating scale was incorporated into the survey design. Rating scales, according to Ary et. al. (2006), “present a number of statements about a behavior, an activity, or a phenomenon with an accompanying scale of categories” (p. 231). For the current study, a rating scale was used as a method for the respondents to indicate their level of frequency (daily, once a week, 1-3 times per month, or never) for the specified behaviors related to phonological awareness in the kindergarten classroom. The rating scale allowed participants an opportunity to respond to the specified statements, which corresponded to their own teaching context, in a manner that indicated their frequency of particular behaviors. The
data obtained from their responses provided numerical values for the descriptive statistics.

The multiple-choice items presented study participants with a selection of statements corresponding to various possible responses. Respondents chose the statement or statements that best exemplified their current kindergarten practice. The summation scores from each of the statement response items were useful to support the data attained in the Likert scale and rating scale.

The open-ended question, in the latter part of the instrument, allowed the respondents an opportunity to answer a question in a manner that would not restrict them to a specific response. The summary statements attained from this item are presented as additional information that may not have been addressed in the other sections of the survey.

All instrument responses were provided by participants on a mail-in questionnaire containing 35 items. The number of responses for each question, as well as the corresponding percentages, was tabulated. The frequency and percentage data are presented in frequency tables. These tables are useful to provide a summary of the categorical (nominal) data that has been divided into groups to record how often each value of the variable occurred. The frequency tables provide a descriptive profile of information sought through the research to answer the research question.

**Research Participants**

The sample population for the study included kindergarten teachers from a public school district in Ontario. The target school district has had a significant number of students identified in Grade 3, as below the provincial standard for the last 4 years in
relation to reading. Grade 3 is the first year of formal, standardized testing within this province. From 2003 to 2008, the number of Grade 3 students identified as below the provincial standard in reading ranged from 42% to 48% (Education Quality and Accountability Office, 2008). Teachers who comprised the sample population originated from various types of school settings and were representative of diversity in demographics, including rural, suburban, and inner-city schools, as well as schools comprised of diversity in ethnic groups, socioeconomic groups, and language backgrounds. The kindergarten teachers were from junior and senior kindergarten programs that have a full-day/alternate-day schedule or a half-day/everyday schedule. Data was collected from kindergarten teachers at 85 sites, with a total of 151 of 243 potential participants represented.

**Instruments Used in Data Collection**

All of the 243 kindergarten teachers in the target population had an opportunity to volunteer to participate in completing a survey. A instrument was utilized to gather information from a specific sample, kindergarten teachers, in diverse locations within a target school district. In addition, a survey design was employed to provide a standardized procedure in which all participants were asked to respond to the same instrument items.

It became apparent through the literature review that a previously designed instrument pertaining to phonological awareness perceptions of kindergarten teachers was not available. Therefore, each of the items presented in the instrument were developed by the researcher to correspond to the research question posed in the study. In addition to 5 general information items, a total of 35 items were developed for the
questionnaire. The instrument items were formatted in a manner that allowed the respondents to readily answer by circling, or by placing an x in a box of their preferred responses in each survey section. Consideration was given to development of each item so that the questionnaire could be completed with clarity, ease and in a timely manner. A few items in the instrument were added to assure the respondents were keeping focused on particular item responses. These items required responses which contrasted with a response given in a prior question. For example, items 2, 4, 6, 9, 10, and 15 supported a favorable perception of the use of phonological awareness, in contrast items 8 and 12 did not. Similarly, items 1, 5, 11, 13, 14, 16, 18, and 19 supported the significance of phonological awareness, whereas items 3, 7, and 17 did not. The items presented on the instrument pertained specifically to the significance, usage and behaviors (delivery) of phonological awareness by the kindergarten teachers in their current classroom context. The format of the instrument allowed the respondents to consider three areas associated with phonological awareness which directly related to the guiding study questions – Phonological Awareness Perceptions, Phonological Awareness Behaviors, and Reading Instruction. Each of these sections was associated with the four guiding questions posed for this study. The instrument items contained in the Phonological Awareness Perception section considered teachers’ perceptions of the significance and use of this reading skill in the kindergarten classroom. The data attained from this section were utilized to explore the following guiding question associated with the research question, What are the kindergarten teachers’ perceptions toward using explicit phonological awareness instruction in relation to the kindergarten reading program? In addition, the following guiding question was addressed in this first section, Do kindergarten teachers
perceive phonological awareness skills as a significant component of the kindergarten reading program? Perceptions of the use and significance of phonological awareness by kindergarten teachers, as part of implementing a kindergarten literacy program, was the focus of the items presented in the Phonological Awareness Perception section of the instrument. Within the *Phonological Awareness Behaviors* section of the instrument, the respondents were presented with items pertaining to the delivery, or actual behaviors that teachers exhibited in their kindergarten classroom practice. The items in this instrument section were derived to focus on the question, What are the instructional behaviors related to phonological awareness skills that are exhibited by the kindergarten teachers in the classroom? The data attained from this section provided a greater awareness of the kindergarten teachers’ classroom behaviors associated with phonological awareness. In addition, the *Phonological Awareness Behaviors* section of the instrument was utilized to examine the fourth guiding question which focused upon, Do the behaviors associated with phonological awareness vary according to the years of experience of kindergarten teachers. This section was beneficial to note the relationships presented in the data between the phonological awareness behaviors demonstrated and the respondent groups categorized by years of teaching experience and years of kindergarten teaching experience. In the third section of the instrument, *Reading Instruction*, survey items referring to early literacy connections, were presented to support or negate the data attained through the former two sections.

The kindergarten teachers who participated in this study completed a mail-in questionnaire containing 35 items related to their perceptions of phonological awareness use and significance, and their behaviors that reflect phonological awareness skill
practices in the classroom. The instrument included five sections labeled as Kindergarten Program Information, Phonological Awareness Perceptions, Phonological Awareness Behaviors, Reading Instruction, and Participant Information. Following an introductory statement and the general survey instructions, two multiple-choice items were presented in the Kindergarten Program section. These items provided the respondent with nonthreatening questions in which to begin the survey. In addition, these instrument items provided introductory information pertaining to the respondents’ classroom experiences. The information attained from these 2 introductory instrument items were utilized to identify the kindergarten programs in which each respondent currently instructed.

The second section, Phonological Awareness Perceptions, focused on the following research questions: What are the kindergarten teachers’ perceptions toward using explicit phonological awareness instruction in relation to the kindergarten reading program? Do kindergarten teachers perceive phonological awareness skills as a significant component of the kindergarten reading program? Participants were provided with 19 statements related to their perceptions of the use and significance of phonological awareness. Using a Likert scale, respondents rated their level of agreement according to the following: 1 (strongly disagree), 2 (disagree), 3 (undecided), 4 (agree), and 5 (strongly agree). Each of the statements provided by the respondents corresponded to information stated in the literature review of the proposal. Instrument items 2, 4, 6, 8, 9, 10, 12, and 15 related to kindergarten teachers’ perceptions of the use of phonological awareness in the classroom. Instrument items 2, 4, 6, 8, and 10 related specifically to perceptions of phonological awareness as a preventive reading strategy. Instrument items
9, 12, and 15 addressed the perceptions of phonological awareness as a reading predictor to assist students potentially at risk of reading difficulties in the future. Instrument items 1, 3, 5, 7, 11, 13, 14, 16-19 in the Likert scale pertained to kindergarten teachers’ perceptions of the significance of phonological awareness to early reading skill development. These perceptions, related to the importance of phonological awareness, were sub-divided into three specific topic areas: a) the significance of phonological awareness as an early reading skill; b) the significance of phonological awareness in comparison to phonics instruction; and c) the significance of phonological awareness instruction in an explicit manner in comparison to instruction in an informal manner. Instrument items 1, 5, 14, 18 and 19 were specifically associated with the perceptions of the significance of phonological awareness as an early reading skill. Instrument items 3, 11, 13, and 17 referred specifically to teachers’ perceptions of phonological awareness instruction in comparison to phonics instruction – their perception of the difference. Instrument items 7 and 16 related specifically to the perceptions of kindergarten educators related to explicit phonological awareness instruction.

The third section of the instrument, Phonological Awareness Behaviors, featured a rating scale focusing on the guiding question, What are the instructional behaviors related to phonological awareness that are exhibited by the kindergarten teachers in the classroom? Participants were provided with a table of various phonological awareness-related classroom behaviors. Respondents placed an X in the box that corresponded to the frequency of the stated behaviors in their actual classroom practice. Instrument item 20 focused on a kindergarten teachers’ intentional planning to incorporate phonological awareness assessment in their classroom experience. Instrument items 21 to 25 in this
section related to the use of explicit phonological awareness instruction in the kindergarten classroom. Instrument items 26 to 30 addressed the implementation of specific phonological awareness activity centers in the kindergarten classroom context.

Section four of the instrument, *Reading Instruction*, consisted of five multiple-choice items and one open-ended question. The multiple-choice items corresponded to the study questions related to the kindergarten teachers’ perceptions of the significance and use of phonological awareness instruction. Instrument items 31 referred specifically to the significance of phonological awareness as an early reading skill. Instrument item 32 pertained to the kindergarten teachers’ behaviors, particularly as revealed through the intentional allotment of time for phonological awareness planning. Instrument item 33 was associated with kindergarten teachers’ perceptions of the use of phonological awareness for predicting reading abilities. Instrument item 34 corresponded to the phonological awareness behaviors being demonstrated in the classroom, specifically through the use of phonological awareness activity centers. Instrument item 35 pertained to kindergarten teachers’ perceptions of the significance of explicit instruction, particularly in relation to specific phonological awareness skills demonstrated through behaviors exhibited in the classroom. For each of the items in this section of the instrument, the participants circled the specified number of appropriate responses for each of the statements. The open-ended item in this section pertained to the guiding question which corresponded to the behavior construct. This item considered the specific behaviors associated with phonological awareness instruction that were being exhibited by kindergarten teachers in the classroom. Participants had an opportunity to add any
additional, relevant information about their individual classroom behaviors related with phonological awareness.

The instrument concluded with a section title, *Participant Information*. In this section, respondents provided background information useful for identifying the population sampled. The Years of Experience and Years of Kindergarten Teaching Experience portions supplied data for considering the guiding question, Do the behaviors associated with phonological awareness vary according to the years of experience of kindergarten teachers?

Validity and reliability were essential components for consideration when the survey instrument was designed. Validity is a significant factor for consideration when designing and implementing a survey instrument. Ary, et al (2006) defined validity as, “the extent to which scores on a test enable one to make meaningful and appropriate interpretations” (p. 242). Three specific validity considerations for this study included: content validity, face validity, and construct validity. Content validity was potentially established as the instrument was being developed. Each of the items on the instrument was extracted from the information attained in the literature review which related directly to the questions being contemplated for this study. An example of how the information from the literature review was used to develop the instrument questions is noted in the following: in instrument item 2, it is stated, “PA instruction can be used to prevent future reading difficulties.” This instrument item, as well as items 4, 6 and 10, was derived from the content presented in statements provided by researchers. For example, a connection to these instrument items can be made to an article by Kirby et al. (2003) whereby the authors wrote, “There is considerable evidence that phonological awareness
… is a key component in the development of reading ability and that poor PA is a, or perhaps the, core deficit in reading disability” (p. 453). The wording of the questions, the phonological awareness skills and concepts covered, and the kindergarten reading program expectations were given careful consideration by the researcher to develop the survey instrument. Overall, the researcher generated instrument items specifically focusing on phonological awareness in the kindergarten context. The instrument which was developed had the potential to adequately represent the phonological awareness content focused upon for the study outcomes. A pretest and a field test were incorporated into the study to ensure that the terminology and skills being discussed were clear and coherent. The instrument which was developed contained information that reflected and was relevant to kindergarten teachers’ daily classroom practices.

In regards to face validity, Ary, et al. (2006) wrote, “it should appear valid for its intended purposes” (p. 439). The instrument developed for this study pertained specifically to a kindergarten teacher’s practice in the classroom related to the language arts program. Since phonological awareness is considered to be a component of the kindergarten reading program, it should be of interest to kindergarten teachers who are striving to display best practices in their kindergarten classrooms.

Construct validity, according to Ary, et al. (2006), “is defined as the extent to which a test is measuring the psychological construct it is intended to measure” (p. 313). An abstract construct, such as perceptions, is difficult to measure prior to the implementation of a study. Therefore, for the current study it was necessary to incorporate a field study to subjects who had extensive knowledge about kindergarten, literacy, early reading, or reading difficulties in order to obtain relevant feedback.
corresponding to the survey instrument. Construct validity considerations for this study included: identifying the constructs to be measured (phonological awareness use, significance and behaviors); developing an instrument which measured each of these constructs effectively; and testing and revising the instrument through a field test. The field test was conducted with five kindergarten teachers, two reading specialists, one literacy consultant, and a special education educator. The feedback attained through the field test (see Appendix B) was utilized to modify and revise the questionnaire to ensure that the instrument was more precise and comprehensible. The final version of the survey, which was used for the actual study, contained 35 items which focused on the three constructs – phonological awareness use, phonological awareness significance, and phonological awareness behaviors. Increased validity was sought by having several questions pertaining to the three identified constructs, and by not deviating from the intended purpose of examining the perceptions of kindergarten teachers in relation to these specific constructs. As the instrument was designed and implemented, it was the intention of the researcher to strive to maintain construct validity by utilizing survey questions that corresponded directly to the stated research question and supported the theoretical view.

In addition to validity, the reliability of a survey, in which the instrument has the ability to be repeated, needed to be considered. Reliability, according to Ary et al. (2006), refers to “the degree of consistency with which it [a measuring instrument] measures whatever it is measuring” (p. 254). As the instrument was developed and implemented, it was necessary to focus on the inclusion of several questions pertaining to a particular phonological awareness construct asked in varying ways. In the
Phonological Awareness Perceptions section of the instrument, several questions were asked that were similar in content, for example, related to phonological awareness use or phonological awareness significance, but asked in different ways to obtain a similarity in responses. A consistency in responses was required to obtain a higher degree of reliability. Kirby, et al. (2006) contend, “internal consistency may be checked by building some redundancy into the instrument – items on the same topic may be rephrased and repeated” (p. 440). Internal consistency was considered in other sections of the instrument, as questions were developed that would require a response similar or in direct opposition to another one on the instrument. In addition, a Cronbach’s alpha measurement was incorporated into the research. A Cronbach’s alpha is a “measure of homogeneity” (Ary et al., 2006) that can be utilized to measure items on a Likert scale in which responses vary according to levels of agreement. This reliability statistic was utilized to determine the internal consistency of the instrument for this study. A Cronbach’s alpha was calculated for the perceptions section of the instrument. The Cronbach alpha value associated with the items pertaining to perceptions of the significance of phonological awareness was .803. The Cronbach alpha value associated with the items pertaining to perceptions of the use of phonological awareness was .655. Since a Cronbach alpha should be greater than .7 to be an acceptable reliability statistic, there is a discontinuity in the reliability of these two sets of items. The items related to the perceptions associated with the significance of phonological awareness would be considered fairly reliable. The items related to the perceptions associated with the use of phonological awareness would not be considered reliable for everyday use. Further
research, perhaps in the form of additional similar instrument items, is required to increase the reliability of the items associated with the use of phonological awareness.

The *Reading Instruction* section in the instrument was added to support data in the other two sections in the instrument. The instrument items in this final section approached the content in a different format, but addressed the same constructs --- phonological awareness use, significance and behavior. The reliability of the instrument was connected to an apparent consistency in the responses attained through the instrument items, and as well as, a built-in redundancy in responses attained through instrument items that were similar, or in direct opposition to one another. Overall, the validity and reliability of the instrument were given careful consideration so that theory and practice were intertwined and relevant data could be obtained.

The data attained from the instrument responses were utilized to describe kindergarten teachers’ current perceptions and behaviors associated with phonological awareness. The process in which the descriptive data were collected and analyzed becomes apparent as the procedures are revealed.

**Procedures**

**Data collection.** The research study was designed to provide descriptive information associated with kindergarten teachers’ perceptions and usage of phonological awareness. The current study began during early fall of the 2009 school year. Access to conduct the study was confirmed with the research personnel at the target school district board office and Liberty University’s Institutional Review Board (see Appendix F). The researcher attained a listing of all of the schools from the Ontario Ministry of Education website, www.edu.gov.on.ca/eng/sift/elementary.asp. Each of the schools listed was
called by the researcher to confirm the actual number of kindergarten teachers at each site within the target school district. Since a previously designed instrument was not available, it was necessary to pretest the researcher-developed instrument, and then perform a field study prior to the actual instrument distribution. A pretest was conducted with one administrator and two educators who do not teach kindergarten or emergent literacy to examine the clarity of the vocabulary and comprehensiveness of the questioning presented in the instrument. Revisions were made to the instrument based on the input received through the pretest. Using the revised instrument, a field test was completed to further insure a more reliable and valid survey instrument. The researcher distributed nine questionnaires to five randomly chosen kindergarten teachers, two reading specialists, one literacy consultant and a special education educator within the targeted school district to field test the contents of the instrument. The potential participants for the field study were contacted to confirm their willingness to participate. Upon receiving the approval from each field study participant, a package was mailed containing a letter of explanation, a copy of the instrument, a survey questionnaire, and a self addressed envelope. Those who participated in the field study were asked to return the package in the self-addressed return envelope, and acknowledge that their package had been mailed through an e-mail reply. A gift card was mailed to those who confirmed the return mailing. Each participant was asked to initially complete the instrument, and then respond to the following questions on the survey questionnaire:

1. Do the instructions presented at the beginning of the survey instrument adequately describe the procedures to be followed to complete the survey?  
   (Check one) If no, please explain.
2. Do the instructions provided at the beginning of each section of questions adequately describe the procedures for completing the specific question types in that particular section? (Check one) If no, please explain.

3. In the section, Phonological Awareness Perceptions, is the Likert scale appropriate for each question? (Check one) If no, please specify the questions which were not appropriate, and explain.

4. In the section, Phonological Awareness Behaviors, was the rating scale appropriate for each question? (Check one) If no, please specify the questions which were not appropriate and explain.

5. In the section, Reading Instruction, please rate the questions according to your degree of agreement that each addresses phonological behaviors in the kindergarten classroom. (For questions 31 to 35 on the instrument, participants rated their degree of agreement by placing a check in one of the following boxes: strongly agree; agree; undecided; disagree; or strongly disagree.)

6. Was the survey instrument “respondent friendly” – from the introduction through to the end in the following areas: length of questions; format of survey; readability (ease to read); appropriate terminology; readily answerable. (For each of these areas, the participants indicated yes or no with a check mark in the appropriate box.) If you checked “no” in any of the boxes, please explain.

7. In the following section, please rate the statements by circling the number which corresponds to your level of agreement from 1 to 5, where 1 means you
strongly agree, and 5 means you strongly disagree. The statements included:
a) The survey focuses on perceptions of phonological awareness; b) The
survey is appropriate for kindergarten classroom practices; c) The survey
considers the behaviors of phonological awareness in the classroom; and d)
The survey makes connections between phonological awareness and other
reading skills. (For each statement, participants rated their level of agreement
utilizing the following options: strongly agree; agree; undecided; disagree; or
strongly disagree.)

8. The focus of the kindergarten teacher survey is on perceptions and behaviors
associated with phonological awareness. Did each of the survey questions
maintain the focus? (Check one) If no, please indicate questions which
deviated from the focus.

9. Please indicate how long it took you to complete the kindergarten teacher
survey: ____ minutes

10. Please provide any additional comments or suggestions related to the survey
which have become apparent as you went through the process.

The responses provided by the field study participants were utilized to refine the
instrument by identifying any questions that needed to be clarified or revised due to
ambiguity, inadequacy, or misinterpretation. The majority of the responses pertained to
the use of specific vocabulary, question formatting, and a need to include a definition of
phonological awareness in the instructions. After the field test and after revisions were
completed, a refined survey instrument was mailed to all of the kindergarten teachers
within the target school district (see Appendix A). Each of the survey envelopes included
a cover letter, instructions and instrument items, a self-addressed and postage-paid return envelope, and a package of stickers (see Appendix D). Each of the surveys mailed was coded with a letter and number code (letter representing a particular school and number representing a particular kindergarten teacher). Confidentiality and anonymity were guaranteed based on the type of study being conducted and the method of coding.

Responding to the mail-in surveys was on a voluntary basis; therefore, as data was collected it remained nonthreatening and eliminated interviewer bias. The response period for returning the instruments was 2 weeks. Although specific kindergarten teachers could not be identified, the codings assisted in indicating the number of teachers who had, or had not returned their surveys. After 2 weeks, a reminder postcard was sent to all of the kindergarten teachers at the schools that had not returned their surveys. A reminder note was e-mailed to all of the kindergarten teachers after a 3-week period, utilizing the school district’s kindergarten website. After 4 weeks, a phone call was given to each of the schools which had surveys that were not returned. The perceived potential limitations of the study included a low return rate or the possibility of a misinterpretation of the meaning of the questions asked. It was the intent of the researcher to decrease or eliminate these limitations by completing the following: (a) in regard to the low return rate and to maximize the response rates, a follow-up postcard was sent to the participants after a 2-week period; an additional e-mail was sent after a 3-week period; a follow-up phone call to each school was conducted; and a package of stickers was included in the survey mailing as an incentive to respond promptly; (b) in regard to the misinterpretation issue, it was the intent of the researcher to clarify misconceptions through the field test.
The researcher reviewed and used the data attained through the results of the instruments to answer the guiding questions associated with the research questions. With a profile of current data, a greater awareness has been attained in regard to the following: kindergarten teachers’ perceptions regarding the use of explicit phonological awareness instruction; kindergarten teachers’ perceptions of the significance of phonological awareness; kindergarten teachers’ behaviors (classroom practices) related to phonological awareness instruction; and kindergarten teachers’ years of experience reflections on the instrument information.

**Data analysis.** The data attained through this study were summarized and analyzed to describe the apparent perceptions of the kindergarten teachers and behaviors of the kindergarten teachers associated with the use and significance of phonological awareness skills. All of the data for the kindergarten teacher population were collected using SPSS version 18. The data were entered into the computer twice and then the two entries were compared and the discrepancies between the two entries were identified and corrected. The descriptive profile for this study was developed from tabulations of responses in each section of the instrument.

In the first section of the instrument, *Kindergarten Program Information*, total numbers and percentages for each response were attained (i.e., total number of participants who teach senior kindergarten). These totals are presented in a summary table of demographic data to better understand the kindergarten teacher population represented in regard to the varying kindergarten programs.

In the section, *Phonological Awareness Perceptions*, data was compiled from the responses indicated on the Likert scale. Each agreement, disagreement, and undecided
response related to perceptions of phonological awareness was counted and the frequency totals and percentages were calculated for each survey item pertaining: a) perceptions of phonological awareness use, and b) perceptions of phonological awareness significance. Cumulative scores were not assigned to each statement based on population results since it was the frequency numbers associated with individual responses that was utilized to provide a summary of frequencies and percentages. These frequencies and percentages for items 1-19 are presented in a frequency table as a way to explore and summarize the categorical data (levels of agreement) obtained from the participants.

In the third section, *Phonological Awareness Behaviors*, data from the rating scale were calculated for each of the following: item 20, related to formal phonological awareness assessment practices; items 21-25, related to phonological awareness instruction practices; and items 26-30, related to phonological awareness centre practices. Since a rating scale was utilized for teachers’ responses in the Phonological Awareness Behaviors section, it was necessary to obtain a score for each respondent in relation to how often each teacher reported each of the identified classroom practices. Since rating scales contain ordinal measurements, a numerical value was attached to the time allotment categories to attain a cumulative score for each. This overall score was required to proceed with the third and fourth guiding questions which involved observing totals from the entire survey sample, then the subgroups, years of teaching experience and years of kindergarten teaching experience. The scoring method for items 20-30 included: assigning a score of 1 for a daily response; a score of 2 for a once a week response; a score of 3 for a 1-3 times per month response; and a score of 4 for a never response. A respondent who reported a never response for each of the survey items 20-30
received the highest score (4 for item 20, 4x5 for items 21-25, and 4x5 for items 26-30, with a combined total score of 24). Conversely, a respondent who reported a daily response for each of the instrument items 20-30 received the lowest score (1 for item 20, 1x4 for items 21-25, 1x4 for items 26-30 with a combined total score of 9). Scores for respondents who reported variations in responses received a combined score ranging from 9 to 24 depending on the responses stated. The combined totals were used to calculate an average or mean score for each respondent. For example, if a teacher reported that he or she did the activities associated with items 21 and 22 daily, but did the activities associated with items 23, 24, and 25 weekly, the mean score would be (1+1+2+2+2)/5=1.6. A mean and average was calculated for each teacher based on their responses to items 20-30. A summary of the distribution of scores was displayed in a descriptive table which was developed to describe and synthesize the data attained for all items 20-30. The means of the combined scores for the kindergarten teachers’ responses to items 21-25, related specifically to instructional behaviors, was summarized in a dot plot. The means of the combined scores for the kindergarten teachers’ responses to items 26-30, related specifically to activity center behaviors was summarized and displayed in a dot plot graph. Since item 20, related specifically to formal assessment behaviors, and did not involve multiple responses for a combined total, the frequency data was summarized in a bar graph.

The data attained from the instrument section, Phonological Awareness Behaviors, were utilized for a second purpose, to identify any relationships between the phonological awareness behaviors indicated and years of teaching experience. The total number of responses for teachers, according to years of teaching experience, and years of
kindergarten teaching experience were tabulated. The first group, years of teaching experience, was sub-divided into the following subgroups: 0-5 years; 6-10 years; 11-20 years; and > 20 years. Similarly, the second group, years of kindergarten teaching experience, was subdivided into the following subgroups: 0-5 years; 6-10 years; 11-20 years; and > 20 years. Frequency numbers and percentages for each of these subgroups were calculated for the following behaviors: intentional use of formal phonological awareness assessments; inclusion of specific phonological awareness skill instruction; and incorporation of phonological awareness activity centers. In addition to the information presented in the preceding regarding how the data was analyzed, it was also necessary to include a correlation coefficient to describe the relationships sought for the fourth guiding question, Do the behaviors associated with phonological awareness vary according to the years of experience of kindergarten teachers? For the purposes of this comparison, a Spearman’s rho coefficient of correlation was utilized. Ary et al. (2006) defined this coefficient correlation in the following manner, “Spearman’s rho ($p$), an ordinal coefficient of correlation, is used when the data are ranks rather than raw scores” (p. 381). The numeric value attained through the Spearman correlation measurement was considered in relation to the statistical significance ($p$-value). A $p$-value, ranging from 0-1, indicated the probability of a number displaying the fraction of time something may occur in relation to the data actually obtained. With a $p$-value of >.05 (.05 being the critical $p$-value), and in the absence of a reasonable alternative explanation, there is good evidence that an associated relationship between variables tentatively exists in the population. The lower the $p$-value below .05, the more significant the result, and the less likely that it occurred through chance. A two-tailed (non-directional) test was utilized to
consider the differences in either direction for the kindergarten teacher population studied. The results of the Spearman’s correlation coefficient for items 20-30 is presented in a table, and visually represented in scatterplot graphs.

In the fourth section of the instrument, *Reading Instruction*, a total number and percentage was calculated for each multiple-choice response statement. The data collected were graphically displayed in comparative frequency tables, whereby the frequencies for the subgroups, years of teaching experience and years of kindergarten teaching experience, could be viewed side by side. Comparative frequency tables provide a combination of frequency tables for nominal, categorical data. This format was useful for instrument items 31 through 35 which contain nominal variables that do not have a natural order in their values. In addition, comparisons between years of teaching experience, and years of kindergarten teaching experience were required for guiding question four. The comparative frequency tables provided a suitable format for displaying the descriptive results of items 31-35 to discover the similarities and differences between these subgroups of the sample population. This format has been utilized to provide a display and description of what is occurring in the kindergarten context in relation to the content of items 31-35. Within the comparative frequency tables for instrument items 31-35, the frequency and percentage for *yes, no, and undecided* responses are exhibited. For item 31, the respondents indicated the most essential reading skill to teach in kindergarten based on a list of 6 possible reading skill choices. For items 32, the respondents reported all of the responses, related to allocating time for intentional phonological awareness skill planning, that applied to their individual classroom practice. For items 33 and 34, the respondents indicated whether they use
phonological awareness to predict reading abilities, or use phonological awareness focused learning centers. A yes, no, or undecided response for each of these instrument items was reported by each kindergarten teacher. For item 34, the respondents reported all possible responses corresponding to the phonological awareness skills that are formally taught in their kindergarten classrooms. The totals were tabulated in a table format. For item 35, the respondents reported all possible responses corresponding to the phonological awareness skills that are formally taught in their kindergarten classrooms.

The data attained in the Reading Instruction section were used to support the data from the Likert scale and rating scale in the following ways: a high number and percentage of participants who indicated phonological awareness is the most important reading skill in kindergarten (response statement 3 in instrument item 31) exhibited a positive perception of the significance of phonological awareness; a high number of participants who circled 2 or more response items in instrument item 32 indicated behaviors associated with phonological awareness use in practice; a high number and percentage of participants who indicated yes to the response statement in instrument item 33, referring to the significance of phonological awareness as a reading predictor, displayed a positive perception of the use of phonological awareness; a high number and percentage of participants who indicated yes to the response statement related to the use of activity centers focusing on phonological awareness demonstrated use of phonological awareness (behavior) in a kindergarten classroom; similarly, a high number and percentage of participants who circled 2 or more responses in instrument item 35 displayed explicit use of phonological awareness instruction in a kindergarten classroom.
Open-ended responses provided for item 36, referring to specific, individual phonological awareness teaching practices, were compiled in a summary chart of comments. (see Appendix C) This data provided additional phonological awareness information not referred to in the other instrument sections.

In the final section of the instrument, *Participant Information*, total numbers and percentages were attained for each response statement (i.e., total number of female participants; total number of male participants; a total number of teachers with 0–5 years of experience). These totals, in combination with the two items from the first section, provided descriptive background data of the participants. The background data, referred to as demographic data, is presented in Table 1 presented previously.

The data presented in each of the tables identified in this chapter were utilized by the researcher to describe the perceptions and behaviors pertaining to phonological awareness usage. After consideration was given in relation to how the data were collected, described, and analyzed, one can proceed to exploring the results attained for the study.

**Summary**

Chapter Three focused on the methodology that was utilized to address the research question for the study. Survey and correlation research methods were employed to attain data about the perceptions and behaviors of kindergarten teachers in a target school district. Within this third chapter, information regarding the participants and the instruments used to conduct the study has been stated. The procedures for data collection and data analysis have been specified to provide information on the direction which the
study proceeded. In Chapter Four, the results of the study will be disclosed, which relate to the research design and methodology presented within this chapter.
Chapter Four: Results of the Study

Introduction to the Chapter

The results of the study are focused upon within Chapter Four. Recognizing the significance of phonological awareness as an essential reading skill in kindergarten that is apparent in current literacy research, the descriptive data collected for the current study were analyzed to provide a description of phonological awareness perceptions and behaviors reported by kindergarten teachers. The results of this analysis are provided in the present chapter, and were used to address the primary research question, What are the perceptions of and behaviors of kindergarten teachers in relation to phonological awareness instruction? In addition, the results of the data were utilized to address the secondary research question, Is there a significant relationship between phonological behaviors and teachers’ years of experience? Chapter Four begins with a presentation of demographic data to describe the target population represented in the study. Following this data, the research findings for each section of the survey instrument are focused upon. Within this section the findings for each guiding question are addressed according to the results attained. Additional findings which resulted as the study was conducted are examined. Chapter Four concludes with a summary.

Demographic Data

Kindergarten teachers in a target school district in Ontario were the participants for the current survey study. Table 1 provides a summary of the demographic data for the target population.
| Table 1 |

**Demographic Data of Target Population**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>147</td>
<td>97.4</td>
</tr>
<tr>
<td>Male</td>
<td>3</td>
<td>2.0</td>
</tr>
<tr>
<td>Valid total</td>
<td>150</td>
<td>99.3</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>.7</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All day / alternate day</td>
<td>104</td>
<td>68.9</td>
</tr>
<tr>
<td>Half day mornings</td>
<td>6</td>
<td>4.0</td>
</tr>
<tr>
<td>Half day morning and half day</td>
<td>33</td>
<td>21.9</td>
</tr>
<tr>
<td>Valid total</td>
<td>143</td>
<td>94.7</td>
</tr>
<tr>
<td>Missing</td>
<td>8</td>
<td>5.3</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grade</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior kindergarten</td>
<td>5</td>
<td>3.3</td>
</tr>
<tr>
<td>Senior kindergarten</td>
<td>6</td>
<td>4.0</td>
</tr>
<tr>
<td>Junior / senior kindergarten blend</td>
<td>132</td>
<td>87.4</td>
</tr>
<tr>
<td>Valid Total</td>
<td>143</td>
<td>94.7</td>
</tr>
<tr>
<td>Missing</td>
<td>8</td>
<td>5.7</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years of Teaching Experience</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>34</td>
<td>22.5</td>
</tr>
<tr>
<td>6-10 years</td>
<td>35</td>
<td>23.2</td>
</tr>
<tr>
<td>11-20 years</td>
<td>44</td>
<td>29.1</td>
</tr>
<tr>
<td>&gt;20 years</td>
<td>37</td>
<td>24.5</td>
</tr>
<tr>
<td>Valid total</td>
<td>150</td>
<td>99.3</td>
</tr>
<tr>
<td>Missing</td>
<td>1</td>
<td>.7</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years of Kindergarten Teaching Experience</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5 years</td>
<td>71</td>
<td>47.0</td>
</tr>
<tr>
<td>6-10 years</td>
<td>40</td>
<td>26.5</td>
</tr>
<tr>
<td>11-20 years</td>
<td>32</td>
<td>21.2</td>
</tr>
<tr>
<td>&gt;20 years</td>
<td>7</td>
<td>4.6</td>
</tr>
</tbody>
</table>
Survey instruments were mailed to 243 kindergarten teachers with a response rate of 151 participants, representing 62% of the entire kindergarten target population. The univariate distribution of each of the demographic categories was examined initially. The findings in the data revealed that 97.4% of the participants were females. The majority of the participants (68.9%) taught in an all day, alternate day kindergarten program. Junior and senior kindergarten blended classrooms represented 87.4% of the grade type for the kindergarten program identified. The years of teaching experience for the participants varied, however, there was a slightly higher percentage (29.1%) of teachers with 11-20 years of teaching experience. There was also diversity in the years of kindergarten teaching experience represented in the study, however, the highest percentage was for those teachers who had 0-5 years of kindergarten teaching experience (see Appendix G for distribution graphs for demographic data). With a greater understanding of the demographics of the target population, the research findings for the kindergarten teachers represented in this study can be described.

**Research Findings**

The survey instrument was developed with three distinct sections for obtaining descriptive data – Phonological Awareness Perceptions (focusing on the perceptions of kindergarten teachers in relation to the use and significance of phonological awareness); Phonological Awareness Behaviors (focusing on the perceptions of kindergarten teachers in relation to phonological awareness behaviors exhibited in the kindergarten classroom).
context by teachers; and Reading Instruction (focusing on phonological awareness significance, usage, and behavior items that would verify and consolidate data obtained in the previous two sections). Data attained from the instrument were utilized to address four guiding questions which corresponded to the research question. Instrument items 1-19 in the Phonological Awareness Perceptions section of the instrument were designed to address the first and second guiding questions for the study. Question 1 stated, What are the kindergarten teachers’ perceptions toward using explicit phonological awareness instruction in relation to the kindergarten reading program? A frequency table (Table 2) displays the frequency and percentages for instrument items 2, 4, 6, 8, 9, 10, 12, and 15, which pertained to this guiding question.

Table 2

*Frequency Numbers and Percentages of Kindergarten Teachers’ Responses for Items Related to Perceptions of Phonological Awareness Use*

<table>
<thead>
<tr>
<th>Item and Text</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 2: PA instruction can be used to prevent future reading difficulties.</td>
<td>-</td>
<td>7(4.6)</td>
<td>32(21.2)</td>
<td>74(49.0)</td>
<td>35(23.2)</td>
</tr>
<tr>
<td>Item 4: Reading difficulties in grade one are often the result of no PA instruction.</td>
<td>4(2.6)</td>
<td>48(31.8)</td>
<td>61(40.4)</td>
<td>33(21.9)</td>
<td>4(2.6)</td>
</tr>
<tr>
<td>Item 6: Young students who experience reading difficulties would benefit from PA instruction.</td>
<td>-</td>
<td>-</td>
<td>10(6.6)</td>
<td>104(68.9)</td>
<td>35(23.2)</td>
</tr>
<tr>
<td>Item 8: Reading difficulties cannot be prevented in kindergarten.</td>
<td>25(16.6)</td>
<td>69(45.7)</td>
<td>31(20.5)</td>
<td>17(11.3)</td>
<td>7(4.6)</td>
</tr>
</tbody>
</table>
Item 9: Daily PA instruction is useful for predicting reading difficulties.

1(7)  16(10.6)  60(39.7)  60(39.7)  11(7.3)

Item 10: Explicit PA instruction can decrease or eliminate early reading difficulties.

-  13(8.6)  51(33.8)  71(47.0)  9(6.0)

Item 12: Reading difficulties cannot be identified until grade one or two.

38(25.2)  80(53.0)  14(9.3)  15(9.9)  1(0.7)

Item 15: PA instruction in kindergarten has an impact on reading in the later grades.

-  2(1.3)  19(12.6)  102(67.5)  26(17.2)

The descriptive research findings from this table follow. The focus of instrument items 2, 4, 6, 8, and 10 was related to a kindergarten teacher’s use of phonological awareness. Instrument items 2, 4, 6, and 10 corresponded to the use of phonological awareness specifically as a prevention strategy. The findings of instrument item 2 are that 49.0% of the respondents agree that phonological awareness can be used to prevent future reading difficulties. Similarly, for items 6 (68.9%) and 10 (47.0%), the majority of respondents indicated that they agreed with the statements related to the use of phonological awareness as a prevention strategy to reduce reading difficulties. Item 8 in this section was added to the instrument as an item that would contradict the responses for 2, 4, 6, 10 and 12. This item was added to the instrument to be sure that the participants were focusing on each item, rather than randomly selecting similar agreement statements, and to build redundancy into the instrument. The majority of the responses (45.7%) for item 8 was disagree which would appear to have fulfilled the intended purpose for this survey item. Instrument item 4 had an undecided response.
percentage of 40.4%. The results of this data finding tend to suggest that the majority of kindergarten participants are not certain whether reading difficulties in grade one are the result of a lack phonological awareness instruction. In the instrument section, Phonological Awareness Perceptions, the focus of survey items 9, 12, and 15 corresponded to the use of phonological awareness specifically as a prediction strategy. The research findings for item 9 indicated that the majority of the respondents either agreed (39.7%) or were undecided (39.7%) with the statement that daily phonological awareness instruction is useful for predicting reading difficulties. The results for item 15, related to the use of phonological awareness as a prediction strategy which impacts literacy in the later grades, indicated that 67.5% of the respondents agreed. Item 12, which was added as a contradictory statement in contrast to item 9 and item 15, reported that 53.0% of the respondents disagreed with the statement that reading difficulties cannot be identified until grade one or two. The data presented in the frequency table associated with how kindergarten teachers perceive the use of phonological awareness provided descriptions of the responses of kindergarten teachers’ in relation to the first guiding question for the study. An awareness of the following surfaced from the summary of results for items pertaining to the perceptions of phonological awareness use: the majority of kindergarten respondents perceived the significance of using phonological awareness to prevent future reading difficulties. Furthermore, the descriptive profile associated with the kindergarten teachers’ perceptions of the use of phonological awareness suggests that several respondents are undecided about the use of these skills as a predictor of reading deficits.
Guiding question 2 stated, Do kindergarten teachers perceive phonological awareness skills as a significant component of the kindergarten reading program? A frequency table (Table 3) displays the frequency and percentages for instrument items 1, 3, 5, 7, 11, 13, 14, 16, 17, 18, and 19 which pertained to this guiding question.

Table 3

*Frequency of Kindergarten Teachers’ Responses for Items Related to Perceptions of Phonological Awareness Significance*

<table>
<thead>
<tr>
<th>Item and Text</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1: PA is an essential reading skill in kindergarten.</td>
<td>-</td>
<td>4(2.6)</td>
<td>4(2.6)</td>
<td>62(41.1)</td>
<td>80(53.0)</td>
</tr>
<tr>
<td>Item 3: PA and phonics instruction teach the same reading strategies.</td>
<td>11(7.3)</td>
<td>71(47.0)</td>
<td>27(17.9)</td>
<td>35(23.2)</td>
<td>6(4.0)</td>
</tr>
<tr>
<td>Item 5: Students need to know how sounds connect to letters to be able to read.</td>
<td>-</td>
<td>10(6.6)</td>
<td>4(2.6)</td>
<td>88(58.3)</td>
<td>48(31.8)</td>
</tr>
<tr>
<td>Item 7: PA instruction should occur incidentally and informally in the kindergarten classroom.</td>
<td>4(2.6)</td>
<td>44(29.1)</td>
<td>14(9.3)</td>
<td>69(45.7)</td>
<td>19(12.7)</td>
</tr>
<tr>
<td>Item 11: PA instruction Focuses only on the sounds in words.</td>
<td>14(9.3)</td>
<td>94(62.3)</td>
<td>12(7.9)</td>
<td>27(17.9)</td>
<td>2(1.3)</td>
</tr>
<tr>
<td>Item 13: PA and phonics should be taught together.</td>
<td>1(.7)</td>
<td>14(9.3)</td>
<td>30(19.9)</td>
<td>93(61.6)</td>
<td>11(7.3)</td>
</tr>
<tr>
<td>Item 14: Daily PA instruction and activities are necessary in kindergarten.</td>
<td>-</td>
<td>6(4.0)</td>
<td>17(11.3)</td>
<td>95(62.9)</td>
<td>31(20.5)</td>
</tr>
<tr>
<td>Item 16: PA should be explicitly taught with formal lessons.</td>
<td>3(2.0)</td>
<td>35(23.2)</td>
<td>33(21.9)</td>
<td>60(39.7)</td>
<td>15(9.9)</td>
</tr>
</tbody>
</table>
Item 17: Phonics should be taught before PA.

<table>
<thead>
<tr>
<th></th>
<th>11(7.3)</th>
<th>84(55.6)</th>
<th>34(22.5)</th>
<th>18(11.9)</th>
<th>2(1.3)</th>
</tr>
</thead>
</table>

Item 18: Beginning readers should be able to isolate sounds in words.

<table>
<thead>
<tr>
<th></th>
<th>-</th>
<th>25(16.6)</th>
<th>24(15.9)</th>
<th>90(59.6)</th>
<th>10(6.6)</th>
</tr>
</thead>
</table>

Item 19: Learning to read involves blending sounds to form words.

<table>
<thead>
<tr>
<th></th>
<th>1(.7)</th>
<th>6(4.0)</th>
<th>8(5.3)</th>
<th>113(74.8)</th>
<th>20(13.2)</th>
</tr>
</thead>
</table>

Each of these instrument items related to kindergarten teachers’ perceptions of the significance of phonological awareness. Instrument items 1, 5, 14, 18 and 19 corresponded specifically to the significance of phonological awareness as an early reading skill. Items 3, 11, 13 and 17 were associated with the significance of phonological awareness in comparison to phonics. The statement in instrument items 7 and 16 pertained to the significance of phonological awareness through explicit instruction rather than informal instruction. The findings of instrument item 1 were that 94.1% of the respondents agreed or strongly agreed that phonological awareness is an essential reading skill in kindergarten. Responses to item 5 indicated that 90.1% of the survey participants, who indicated an agree or strongly agree response, recognized the significance of having students know how sounds connect to letters to be able to read. Similarly, 83.4% of the respondents for item 14 reported that they agreed or strongly agreed that daily phonological awareness instruction and activities are necessary in kindergarten. Instrument items 18 and 19 focused on the significance of 2 specific phonological awareness skills. The data attained for these 2 items indicated that the majority of respondents agreed or strongly agreed with the statements presented in these items – for item 18, the cumulative totals for the agreed and strongly agreed categories
was 66.2%, and for item 19 the cumulative totals for the agreed and strongly agreed
categories was 88.0%. Responses to items 1, 5, 14, 18 and 19 displayed favorable
agreement in relation to the participants’ perceptions of the significance of phonological
awareness as an early reading skill. Instrument items 3, 11, 13 and 17 corresponded
specifically to perceptions that kindergarten teachers have associated with the
significance of phonological awareness in comparison to phonics. Items 11 and 13 were
designed to support favorable perceptions of the significance of phonological awareness.
The data findings for item 13 displayed that 61.6% of the respondents agreed that
phonological awareness should be taught with phonics. In relation to item 11, the
responses indicated that 71.6% of the respondents either disagreed or strongly disagreed
that phonological awareness focuses on sounds in words. When this percentage is added
to the additional 7.9% who provided undecided responses, it appears that the majority of
respondents do not contend that phonological awareness focuses on sounds. Instrument
items 3 and 17 contradicted the information provided in items 11 and 13 and thereby,
presented statements which do not support the significance of phonological awareness in
comparison to phonics. The majority of the respondents stated a disagree response for
item 3 (47.0%) and item 17 (55.6%), thereby displaying their support in favor of the
distinctive features of phonological awareness skills and phonics skills. Instrument item
16 and 7 pertained to the perceptions of kindergarten teachers in relation to the
significance of explicit phonological awareness instruction rather than informal
instruction. Instrument item 16 related specifically to the need to teach phonological
awareness through explicit formal lessons. In contrast, instrument item 7 related
specifically to the need to teach phonological awareness skills incidentally and informally
in the kindergarten classroom. The findings for item 16 indicated that 39.7% of the respondents agreed with the significance of teaching phonological awareness explicitly. The findings for item 7 indicated that 45.7% of the respondents agreed that phonological awareness should occur through an incidental and informal manner in the kindergarten classroom. Overall, according to the data collected in relation to kindergarten teachers’ perceptions of the significance of phonological awareness, the descriptive profile revealed the following: the majority of kindergarten teachers’ respondents reported – phonological awareness is an essential early reading skill; incidental, and informal instruction is perceived as more significant than explicit, formal instruction; daily phonological awareness instruction and activities are necessary in kindergarten; and phonics and phonological awareness should be taught together. The responses by kindergarten teachers in regards to the focus of phonological awareness skills being related to sounds revealed that most kindergarten teachers did not perceive this significance.

The data collected for instrument items 1-19 provided a description of kindergarten teachers’ perceptions related to the use and significance of phonological awareness skills in the kindergarten classroom context. Similarities and variations in perceptions were observed and noted. A Cronbach’s alpha was calculated for the perceptions section of the instrument. The Cronbach alpha value associated with the items pertaining to perceptions of the significance of phonological awareness was .803. The Cronbach alpha value associated with the items pertaining to perceptions of the use of phonological awareness was .655. Since a Cronbach alpha should be greater than .7 to be an acceptable reliability statistic, there is a discontinuity in the reliability of these two
sets of items. The items related to the perceptions associated with the significance of phonological awareness would be considered fairly reliable. The items related to the perceptions associated with the use of phonological awareness would not be considered reliable for everyday use. Further research, perhaps in the form of additional similar instrument items, is required to increase the reliability of the items associated with the use of phonological awareness.

Within the Phonological Awareness Behaviors section, the third guiding question was addressed, What are the instructional behaviors related to phonological awareness that are exhibited by the kindergarten teachers in the classroom? Instrument items 20-30 focused upon the behaviors of kindergarten teachers in their delivery of phonological awareness skills in the kindergarten classroom. Since instrument items 20-30 contained rating scale items, it was necessary to attain a cumulative score for each respondent and utilize the means (averages) to present the descriptive data for this section. Instrument item 20 was the only one that related to formal assessment practices, therefore, it was considered apart from items 21-30. Item 20 pertained to the frequency of incorporating formal phonological awareness skill assessments into the kindergarten program. Findings for this instrument item indicate that phonological awareness assessments occur according the following reported frequencies: daily, 5 (3.3%); once a week, 6 (4.0%); 1-3 times per month, 89 (58.9%); and never, 24 (15.9%) from a valid total of 124 (27 missing). The bar chart in Figure 2 summarized the responses of the respondents.
Figure 2

*Frequency of Kindergarten Teachers' Behaviors Associated with Formal Assessment, item 20*

![Bar chart summarizing the responses to item 20 on the survey.](image)

Figure 2. A bar chart summarizing the responses to item 20 on the survey.

The descriptive statistics for item 20 are presented in Table 4. Within this table, it can be noted that the mean score for the responses provided by 124 of the respondents is 3.06.

**Table 4**

*Descriptive Statistics for Items 20-30*

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Mean Std. Stat.</th>
<th>Standard Deviation Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 20</td>
<td>124</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>3.06</td>
<td>.057</td>
<td>.634</td>
</tr>
<tr>
<td>How often you formally assess phonological awareness skills?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 21-25</td>
<td>145</td>
<td>2.4</td>
<td>1.0</td>
<td>3.4</td>
<td>2.043</td>
<td>.0528</td>
<td>.6360</td>
</tr>
<tr>
<td>Mean of items about teaching phonological awareness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 26-30</td>
<td>141</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2.82</td>
<td>.058</td>
<td>.689</td>
</tr>
<tr>
<td>Mean of items about activity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This mean for item 20 displays that on an average, kindergarten teachers reported that they formally assess phonological awareness skills a little less than 1-3 times per month. Instrument items 21-25 related to the frequency of teaching various phonological awareness skills – segmenting sounds, deleting sounds, blending sounds, rhyming words, and speaking in syllables. As noted in chapter three, a cumulative score was attained from each participant in regards to their responses for instrument items 21-25. In addition to the cumulative total score, a mean was also derived from the cumulative response score. Figure 3 presents a dot plot summarizing the mean of the combined responses to items 21-25.

Figure 3

*Summary of Responses for the Combined Measure of Items 21 through 25*

*Figure 3.* A dot plot summarizing the combined responses of items 21 through 25. Each dot represents one teacher.
The descriptive statistics associated with the dot plot for items 21-25 can be noted in Table 3. Within this table it is apparent that of the 145 teachers who responded to one or more of items 21 through 25, the mean score for these items was 2.043. The value 2.043 translates to a score that is slightly higher than the score for once a week. Therefore, the data suggests that the average teacher in the sample teaches one or more of the skills associated with phonological awareness roughly once a week. Instrument items 26-30 pertain to the frequency of incorporating phonological awareness activity centers into one’s kindergarten classroom. Similar to items 21-25, a cumulative total score was calculated for survey items 26-30.

Figure 4

*Summary of Responses for the Combined Measure of Items 26 through 30*

![Dot plot summarizing the combined responses to items 26 through 30. Each dot represents one teacher.](image)

The descriptive statistics associated with the dot plot for items 26-30 are noted in Table 3. The data presented in this table displays that of the 141 teachers who responded to one or more items 26-30, the mean of the item scores for the respondents was 2.82. These findings suggest that the respondents reported that their students complete one or more activity centers related to segmenting, deleting, blending, rhyming and syllabication...
between once a week and 1-3 times a month. Utilizing the dot plots presented in Figure 3 and Figure 4, a comparison can be noted between the means of items for items 21-25 and items 26-30. The descriptive data suggests that teachers report that they teach phonological awareness skills more frequently than they incorporate phonological awareness activity centers in their kindergarten classrooms. Overall, the data attained from the rating scale cumulative scores for items 20-30 has provided the study with a description of the instructional behaviors related to phonological awareness that are exhibited by the kindergarten teachers in the classroom.

The fourth guiding question for the current study is, Do the behaviors associated with phonological awareness vary according to the years of experience of kindergarten teachers? Information attained in the *Phonological Awareness Behaviors* section of the instrument was utilized to view potential relationships between the phonological awareness behaviors exhibited by teachers, and the respondents’ years of teaching experience, and years of kindergarten teaching experience. A Spearman’s correlation coefficient was utilized to compare years of teaching experience and years of kindergarten teaching experience with the following: instrument item 20, related to the frequency of using formal phonological awareness assessments; instrument items 21-25, related to the frequency of teaching specified phonological awareness skills; and instrument items 26-30, related to the frequency of incorporating phonological awareness centers in the kindergarten classroom. The results of the Spearman’s correlation coefficient are presented in Table 5.
### Table 5

**Spearman Correlations for Selected Variables Associated with Behaviors**

<table>
<thead>
<tr>
<th></th>
<th>Years of Teaching Experience</th>
<th>Years of Kindergarten Teaching Experience</th>
<th>20. How often do you formally assess phonological awareness skills?</th>
<th>Mean of Items About Teaching Phonological Awareness (1 = Daily, 2 = Once a Week, 3 = 1-3 Times a Month, 4 = Never)</th>
<th>Mean of Items About Activity Centers Related to Phonological Awareness (1 = Daily, 2 = Once a Week, 3 = 1-3 Times a Month, 4 = Never)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of Teaching Experience Correlation Coefficient</td>
<td>1.000</td>
<td>.660**</td>
<td>113</td>
<td>-.242**</td>
<td>-.096</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>211</td>
<td>.003</td>
<td>.259</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>150</td>
<td>124</td>
<td>145</td>
<td>141</td>
</tr>
<tr>
<td>Years of Kindergarten Teaching Experience Correlation Coefficient</td>
<td>.660**</td>
<td>1.000</td>
<td>0.19</td>
<td>-.259**</td>
<td>-.022</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.837</td>
<td>.002</td>
<td>.799</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>150</td>
<td>124</td>
<td>145</td>
<td>141</td>
</tr>
<tr>
<td>20. How often do you formally assess phonological awareness skills? Correlation Coefficient</td>
<td>.113</td>
<td>.019</td>
<td>1.000</td>
<td>.139</td>
<td>.312**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.211</td>
<td>.837</td>
<td>.131</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>124</td>
<td>124</td>
<td>120</td>
<td>117</td>
</tr>
<tr>
<td>Mean of Items About Teaching Phonological Awareness Correlation Coefficient</td>
<td>-.242**</td>
<td>-.259**</td>
<td>.139</td>
<td>1.000</td>
<td>.368**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.003</td>
<td>.131</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>145</td>
<td>120</td>
<td>145</td>
<td>141</td>
</tr>
<tr>
<td>Mean of Items About Activity Centers Related to Phonological Awareness Correlation Coefficient</td>
<td>-.096</td>
<td>-.022</td>
<td>.312**</td>
<td>.368**</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.259</td>
<td>.799</td>
<td>.001</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>141</td>
<td>117</td>
<td>141</td>
<td>141</td>
</tr>
</tbody>
</table>

Note. Sig. = significance level based on p-value; critical p-value = .05; **Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

In consideration of the two-tailed significant level, two potential relationships emerged in the data results. Firstly, the results indicated a potential relationship between the years of teaching experience and the mean of items about teaching phonological awareness, Sig. .003. Secondly, the findings suggested a potential relationship between years of kindergarten teaching experience and mean of items about teaching phonological awareness, Sig. .002. These relationships can be noted graphically in the dot plots provided in Figure 5 and Figure 6. The diagonal line on the figures, referred to as
Figure 5

*Relationship Between the Mean of the Items about Teaching Phonological Awareness and Years of Teaching Experience*

![Figure 5](image)

*Figure 5.* Relationship between the mean of the items about teaching phonological awareness (items 21-25) and years of teaching experience. The diagonal line is the least-squares best-fitting line for the points.

Figure 6

*Relationship Between the Mean of the Items about Teaching Phonological Awareness and Years of Kindergarten Teaching Experience*

![Figure 6](image)
the best-fitting line, summarizes the overall trend reflected in the points shown on the dot plots. This trend shows that as years of teaching experience increases there is a tendency for teachers to have lower means of item scores in relation to teaching phonological awareness skills. Similarly, the trend in Figure 6 suggests that as years of kindergarten teaching experience increases there is a tendency for teachers to have lower means of items scores in relation to teaching phonological awareness skills. However, it should be noted in both Figures that the trend is not very strong. In addition to these findings directly associated with the current study, two additional findings indicating potential relationships emerged. The first additional finding indicated that there is a potential relationship between item 20, pertaining to the frequency of behaviors associated with formal assessment use, and the mean of items associated with activity center use, Sig. .001. The second additional finding indicated that there is a potential relationship between the mean of items associated with activity center use, and the mean of items associated with teaching of specific phonological awareness skills, Sig. .000. It should be noted that both of these potential relationships are not related to the groups focused upon for the study, pertaining to years of teaching experience, therefore these potential relationships are not given consideration in the current study.

Guiding question four for this research study investigated relationships between behaviors and years of teaching experience, and then years of kindergarten teaching experience. Therefore, a testing of the validity of three specific null hypotheses
associated with the secondary research question was required. The following are the findings which resulted from the Spearman’s rho measurement:

**Null hypothesis 1.** There is no significant difference between the frequency of behaviors associated with the use of formal phonological awareness assessments and the groups, years of teaching experience and years of kindergarten teaching experience. The results shown in Table 5 for years of teaching experience indicated that the $p$-value ($p=.211$) was greater than .05, demonstrating no statistical difference at the 95% confidence level. Similarly, for years of kindergarten teaching experience, the $p$-value ($p=.837$) was greater than .05. Therefore, null hypothesis one was not rejected.

**Null hypothesis 2.** There is no significant difference between the frequency of behaviors associated with instruction of specific phonological awareness skills, and the groups, years of teaching experience and years of kindergarten teaching experience. The results shown in Table 5 for years of teaching experience displayed that the $p$-value ($p=.003$) was not greater than .05, therefore there is a potential relationship between instruction of specific phonological awareness skills and the group years of teaching experience. Similarly, for years of kindergarten teaching experience, the $p$-value ($p=.002$) was not greater than .05. Therefore, null hypothesis two was rejected.

**Null hypothesis 3.** There is no significant difference between the frequency of behaviors associated with the incorporation of phonological awareness activity centers, and the groups, years of teaching experience and years of kindergarten teaching experience. The results shown in Table 5 for years of teaching
experience indicated that the p-value (p=.259) was greater than .05, demonstrating no statistical difference at the 95% confidence level. Similarly, for years of kindergarten teaching experience, the p-value (p=.799) was greater than .05. Therefore, null hypothesis one was not rejected.

Therefore, as the descriptive data was summarized for items 20-30, the following observations were noted:

a. There is no evidence of a relationship between item 20, pertaining to behaviors associated with formal phonological awareness assessments, and years of teaching experience.

b. There is no evidence of a relationship between the mean of items 26-30, associated with inclusion of instruction of specific phonological awareness skills, and years of teaching experience.

c. There is good evidence of a potential relationship between the mean of items 21-25 and years of experience, as noted in the p-value of .003.

d. There is good evidence of a potential relationship between the mean of items 21-25 and years of kindergarten teacher experience, as noted in the p-value of .002.

In addition to the above findings, there is good evidence of a relationship between responses to item 20 (frequency of formal assessment) and the mean of the responses to items 20-30, Sig. .001. Similarly, there is a highly significant p-value (Sig. .000) of less than .0005 indicating a potential relationship between the mean of items 21-25 and the mean of items 26-30. It should be noted, in regards to these last two findings, these items are not relevant to answering the guiding questions for the current study, therefore, they
are not given consideration in the interpretation of findings. These potential relationships would be useful to consider with additional research focusing on specific relationships and causations.

In section four of the instrument, *Reading Instruction*, additional data was collected and analyzed to support the findings attained in the former two sections, Phonological Awareness Perceptions and Phonological Awareness Behaviors. The data obtained for the items in this section of the instrument provided additional descriptive information to support all of the guiding questions mentioned previously. Instrument item 31 focused on the perceptions of kindergarten teachers in relation to the significance of phonological awareness as an essential component of a kindergarten reading program. The data in the frequency table (Table 6) displays the findings of all respondents in the target population.

Table 6

*Totals for Reading Skills in Item 31 for Kindergarten Teacher Sample Population*

<table>
<thead>
<tr>
<th>Reading Skill</th>
<th>Totals for Reading Skills in Item 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonics</td>
<td>30 (22.4)</td>
</tr>
<tr>
<td>Phonological Awareness</td>
<td>30 (22.4)</td>
</tr>
<tr>
<td>Text Comprehension</td>
<td>16 (11.9)</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>6 (4.5)</td>
</tr>
<tr>
<td>Print Concept Awareness</td>
<td>52 (38.8)</td>
</tr>
<tr>
<td>Totals</td>
<td>134 (100.0)</td>
</tr>
</tbody>
</table>
It can be observed in this descriptive data that the majority of the respondents (38.8%) indicated that print concept awareness is the most important reading skill to teach in a kindergarten reading program. Phonological awareness and phonics shared the second highest percentage with 22.4%. As a combined percentage (61.2%), a considerable number of respondents claim print concept awareness and phonics as the most important reading skills rather than phonological awareness. Table 7 presents the results of reported responses for item 31 according to years of teaching experience and years of kindergarten teaching experience.

Table 7

*Comparative Frequency Table for item 31 Displaying Numbers and Percentages*

<table>
<thead>
<tr>
<th>Reading Skill</th>
<th>Years of Teaching Experience</th>
<th>Years of Kindergarten Teaching Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-5</td>
<td>6-10</td>
</tr>
<tr>
<td>Phonics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological Awareness</td>
<td>6(19.4)</td>
<td>4(13.8)</td>
</tr>
<tr>
<td>Text Comprehension</td>
<td>5(16.1)</td>
<td>2(6.9)</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>1(3.2)</td>
<td>3(10.3)</td>
</tr>
<tr>
<td>Print Concept Awareness</td>
<td>9(29.0)</td>
<td>16(55.2)</td>
</tr>
<tr>
<td>Totals</td>
<td>31(100.0)</td>
<td>29(100.0)</td>
</tr>
</tbody>
</table>

Those respondents with 0-5 years of teaching experience reported that phonics was the most important reading skill to teach in kindergarten (32.3%). A majority of the respondents with 6-10 (55.2%), 11-20 (30.8%), and greater than 20 years (42.9%) of
experience indicated that print concept awareness was the most important reading skill to teach in kindergarten. According to the years of kindergarten teaching experience, those respondents with 0-5 (40.3%) and 11-20 (45.2%) years reported that print concept awareness was the most important reading skill to teach in kindergarten. A majority of teachers with greater than 20 years of kindergarten teaching experience claim that phonics (42.9%) is the most important reading skill. Responses from teachers who have had 6-10 years of kindergarten teaching experience had a shared majority as both that phonological awareness (32.4%) and print concept awareness (32.4%) were reported as important reading skills to teach in kindergarten. Those respondents who had more experience in teaching kindergarten varied a bit more than those teachers who had an increasing number of years in teaching experience in relation to identifying phonological awareness as an important reading skill.

Instrument item 33 related to the use of phonological awareness assessment to predict reading abilities. The majority of responses for the entire target population was split between yes (43%) and undecided (43%) in their response to item 33. Table 8 provides a comparative frequency table for instrument item 33. Within this table, it is apparent that responses varied considerably between the respondents based on years of teaching experience. In relation to years of kindergarten teaching experience, those respondents with 6 or more years of kindergarten teaching experience responded more frequently with yes (37 respondents out of 78). It should also be noted that there were a high number of respondents who indicated an undecided response for survey item 33.
Table 8  

*Comparative Frequency Table for item 33 Displaying Numbers and Percentages*  

Item 33: Would you use a phonological awareness assessment to predict reading abilities?

<table>
<thead>
<tr>
<th>Response</th>
<th>Years of Teaching Experience</th>
<th>Years of Kindergarten Teaching Experience</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-5</td>
<td>6-10</td>
<td>11-20</td>
</tr>
<tr>
<td>Yes</td>
<td>10(29.4)</td>
<td>21(60.0)</td>
<td>19(43.2)</td>
</tr>
<tr>
<td>No</td>
<td>3(8.8)</td>
<td>5(14.3)</td>
<td>6(13.6)</td>
</tr>
<tr>
<td>Undecided</td>
<td>21(61.8)</td>
<td>9(25.7)</td>
<td>19(43.2)</td>
</tr>
</tbody>
</table>

Totals 34(100.0) 35(100.0) 44(100.0) 36(100.0) 71(100.0) 40(100.0) 31(100.0) 7(100.0) 149

Instrument item 34 pertained to the use of classroom centers which focus on phonological awareness skills. Table 9 displays the totals of responses for the subgroup respondents associated with the target population.

Table 9  

*Comparative Frequency Table for item 34 Displaying Numbers and Percentages*  

Item 34: Do you have classroom centers which focus only on phonological awareness skills?

<table>
<thead>
<tr>
<th>Response</th>
<th>Years of Teaching Experience</th>
<th>Years of Kindergarten Teaching Experience</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-5</td>
<td>6-10</td>
<td>11-20</td>
</tr>
<tr>
<td>Yes</td>
<td>17(50.0)</td>
<td>17(50.0)</td>
<td>18(42.9)</td>
</tr>
<tr>
<td>No</td>
<td>17(50.0)</td>
<td>17(50.0)</td>
<td>24(57.1)</td>
</tr>
</tbody>
</table>

Totals 34(100.0) 34(100.0) 42(100.0) 35(100.0) 68(100.0) 39(100.0) 31(100.0) 7(100.0) 145

According to the data presented in this table, the majority of responses (53.1%) were no in relation to the use of phonological awareness centers. However, the results indicate that yes responses were fairly close with 46.9%. Teachers with 0-5 and 6-10 years of
teaching experience varied in their responses to survey item 34. However, teachers with 11-20 (57.1%) and greater than 20 years (54.3%) of teaching experience indicated a *no* response more frequently. Teachers with 11-20 years of kindergarten teaching experience varied slightly with mostly yes responses (51.6%) in comparison to a majority of no responses from those with 0-5 years (52.9%), 6-10 years (53.8%) and greater than 20 years (71.4%) of kindergarten teaching experience.

Instrument items 32 and 35 allowed respondents opportunities for multiple responses. Instrument item 32 relates to the respondents’ intentional planning for phonological awareness in their reading program utilizing the following planning sources: daybook, lesson plans, unit plans, and long range plans. The totals for the target population for item 32 are presented in Table 10.

Table 10

*Totals for Phonological Awareness Planning in Item 32*

<table>
<thead>
<tr>
<th>Phonological Awareness Planning</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Daybook</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>92(62.2)</td>
</tr>
<tr>
<td>No</td>
<td>56(37.8)</td>
</tr>
<tr>
<td>Total</td>
<td>148(100.0)</td>
</tr>
<tr>
<td><strong>Lesson plans</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>70(47.3)</td>
</tr>
<tr>
<td>No</td>
<td>78(52.7)</td>
</tr>
<tr>
<td>Total</td>
<td>148(100.0)</td>
</tr>
<tr>
<td><strong>Unit plans</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>63(42.6)</td>
</tr>
<tr>
<td>No</td>
<td>85(57.4)</td>
</tr>
<tr>
<td>Total</td>
<td>148(100.0)</td>
</tr>
</tbody>
</table>
According to the data presented in this table, teachers in the target population claim to plan for the incorporation of phonological awareness skills mostly through daybook plans. Although many respondents indicated a *no* response for the use of lesson plans, this planning method was fairly close in frequency to *yes* responses. The responses indicated for use of long term planning, through unit plans and long range plans, displayed a majority of *no* responses. Table 11 presents data for instrument item 32 according to years of teaching experience and years of kindergarten teaching experience.

**Table 11**

*Comparative Frequency Table for item 32 Displaying Numbers and Percentages*

<table>
<thead>
<tr>
<th>Phonological Awareness Planning</th>
<th>Years of Teaching Experience</th>
<th>Years of Kindergarten Teaching Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-5</td>
<td>6-10</td>
</tr>
<tr>
<td>Daybook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>22(66.7)</td>
<td>17(50.0)</td>
</tr>
<tr>
<td>No</td>
<td>11(33.3)</td>
<td>17(50.0)</td>
</tr>
<tr>
<td>Total</td>
<td>33(100.0)</td>
<td>34(100.0)</td>
</tr>
<tr>
<td>Lesson plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>14(42.4)</td>
<td>14(41.2)</td>
</tr>
<tr>
<td>No</td>
<td>19(57.6)</td>
<td>20(58.8)</td>
</tr>
<tr>
<td>Total</td>
<td>33(100.0)</td>
<td>34(100.0)</td>
</tr>
<tr>
<td>Unit plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8(24.2)</td>
<td>16(47.1)</td>
</tr>
<tr>
<td>No</td>
<td>25(75.8)</td>
<td>18(52.9)</td>
</tr>
<tr>
<td>Total</td>
<td>33(100.0)</td>
<td>34(100.0)</td>
</tr>
</tbody>
</table>
Although there does not appear to be a trend in responses for either of these groupings of teachers, the most consistency in responses for the years of teaching experience and years of kindergarten teaching experience appears to be in relation to a yes response for the use of daybooks, and a no response for the use of long range plans. In relation to the yes responses provided for the allotment of time for planning through unit plans, the data suggests that yes responses for years of teaching experience rises smoothly with more experience (0-5 years, 24.2%; 6-10 years, 47.1%; 11-20 years, 61.4%) and then drops again down to 32.4% for teachers with over 20 years of experience.

Instrument item 35 related to specific phonological awareness skills that are taught by kindergarten teachers in the classroom. Teachers responded to this instrument item by indicating all of the phonological skills which they formally incorporated into their classroom instruction, including: phoneme isolation; phoneme blending; phoneme segmenting; and phoneme deletion. In addition, those who did not incorporate any of the specified skills could indicate their response as, do not formally teach phonological awareness skills. The totals of responses for the participants in the subgroups of the target population are presented in Table 12. The results for the inclusion of the following
Table 12

Comparative Frequency Table for item 35 Displaying Numbers and Percentages

Item 35: What type of phonological awareness skills do you formally teach in your kindergarten classroom?

<table>
<thead>
<tr>
<th>Phonological Awareness Skills Formally Taught</th>
<th>Years of Teaching Experience</th>
<th>Years of Kindergarten Teaching Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-5</td>
<td>6-10</td>
</tr>
<tr>
<td>Phoneme isolation</td>
<td>29(85.3)</td>
<td>34(97.1)</td>
</tr>
<tr>
<td>Yes</td>
<td>34(97.7)</td>
<td>31(91.2)</td>
</tr>
<tr>
<td>No</td>
<td>64(90.1)</td>
<td>37(97.4)</td>
</tr>
<tr>
<td>Total</td>
<td>71(100.0)</td>
<td>38(100.0)</td>
</tr>
<tr>
<td>Phoneme blending</td>
<td>31(91.2)</td>
<td>34(97.1)</td>
</tr>
<tr>
<td>Yes</td>
<td>40(90.9)</td>
<td>31(91.2)</td>
</tr>
<tr>
<td>No</td>
<td>66(93.0)</td>
<td>35(92.1)</td>
</tr>
<tr>
<td>Total</td>
<td>71(100.0)</td>
<td>38(100.0)</td>
</tr>
<tr>
<td>Phoneme segmenting</td>
<td>21(61.8)</td>
<td>26(74.3)</td>
</tr>
<tr>
<td>Yes</td>
<td>34(77.3)</td>
<td>26(76.5)</td>
</tr>
<tr>
<td>No</td>
<td>45(63.4)</td>
<td>29(76.3)</td>
</tr>
<tr>
<td>Total</td>
<td>71(100.0)</td>
<td>38(100.0)</td>
</tr>
<tr>
<td>Phoneme deletion</td>
<td>10(29.4)</td>
<td>24(70.6)</td>
</tr>
<tr>
<td>Yes</td>
<td>18(40.9)</td>
<td>26(74.3)</td>
</tr>
<tr>
<td>No</td>
<td>18(40.9)</td>
<td>26(74.3)</td>
</tr>
<tr>
<td>Total</td>
<td>34(100.0)</td>
<td>34(100.0)</td>
</tr>
<tr>
<td>Do not formally teach</td>
<td>3(8.8)</td>
<td>31(91.2)</td>
</tr>
<tr>
<td>Phonological skills</td>
<td>1(2.9)</td>
<td>34(97.1)</td>
</tr>
<tr>
<td>Yes</td>
<td>2(5.9)</td>
<td>44(100.0)</td>
</tr>
<tr>
<td>No</td>
<td>4(5.6)</td>
<td>32(94.1)</td>
</tr>
<tr>
<td>Total</td>
<td>34(100.0)</td>
<td>34(100.0)</td>
</tr>
</tbody>
</table>

skills -- phoneme isolation, phoneme blending and phoneme segmenting -- in formal phonological awareness instruction were fairly consistent with a majority of yes responses. Responses for phoneme deletion varied from the findings of the other phonological awareness skills. There were 94 (out of valid total of 147) respondents who indicated a no response in regards to formal instruction pertaining to phoneme deletion.

The data attained for the two categories, years of teaching experience and years of
kindergarten experience, were well represented in the totals presented for the target population. This finding is apparent in relation to how the majority of respondents in each of these years of experience categories reported a yes response pertaining to formal instruction associated with isolation, blending and segmenting skills. The yes responses for phoneme segmenting indicated for years of teaching experience rises smoothly as the years of teaching experience increase (0-5 years, 63.4%; 6-10 years, 76.3%; 11-20 years, 90.3%) until the >20 years category when there is a slight decrease to 71.4%.

Differences in responses can be noted in the years of kindergarten teaching experience columns which pertain to phoneme deletion. Teachers with less years of kindergarten teaching experience (0-10 years) claimed a no response more frequently than those with more years of kindergarten experience (11 years and greater) in relation to formal instruction associated with phoneme deletion.

Additional Findings

Following the Reading Instruction section of the survey instrument, participants were given an opportunity to include any additional comments which corresponded to phonological awareness behaviors in their kindergarten classroom experience. A summary of the comments received is compiled in Appendix C. From the comments received from the study participants, four reoccurring themes emerged. The first theme that emerged from several statements made by the respondents was a connection between phonological awareness and writing. These comments suggested that teachers associated phonological awareness with printing alphabet letters for corresponding sounds rather than an oral skill, or decoding, reading skill. For example, one respondent stated, “I teach it [phonological awareness] more in writing than reading.” A focus on sounding out
words in writing became the emphasis of phonological awareness in these comments rather than a focus on manipulating sounds for oral skill development. A lack of intentional, explicit teaching became evident as a second theme in many of the comments by respondents. For example, “I will often throw in impromptu PA activities when we are waiting in line or during transition times.” An emphasis on informal, short and unplanned phonological awareness lessons became evident through these comments. A third theme that emerged from the respondents’ comments related to an acknowledgement of the lack of adequate phonological awareness training and a claim to want to learn more. For examples, “I admit that this area of reading development has not been stressed, or taught to me as a teacher of young readers”, and “I hope to improve in my efforts. [I] would attend a workshop if offered.” A fourth theme that emerged from the summary of comments related to statements that had no direct relevance to phonological awareness instruction. For example, references were made to “finding words within words”, and “there is very little written work.” The additional comments provided by the respondents varied in relation to focus. For example, a few of the statements made reference to specific phonological awareness activities that the respondents used in their classrooms, and two statements referred to the relevance or inadequacy of phonological awareness assessments. The comments provided by the respondents enhanced the descriptive data provided in the other sections of the survey instrument.

Summary

The results attained and reflected in the statistical tables presented in the current study provide a description of kindergarten teachers’ perceptions and behaviors associated with phonological awareness. The descriptive data presented displays the
perceptions of kindergarten teachers in relation to the significance and use of phonological awareness. In addition, the data displays the behaviors which the kindergarten teacher respondents exhibit in their classroom experience. Furthermore, relationships between behaviors and years of teaching experience, are revealed through the data.

Chapter Four focused on the research findings that emerged from survey and correlation research which were employed to attain data about the perceptions and behaviors of kindergarten teachers in a target school district. Within this fourth chapter, the results of the survey have been utilized to attain a description and present a summary of response data from kindergarten teachers who participated in the current study. After considering all of the numerical data, additional findings which emerged from an open-ended question on the instrument were stated. A more detailed summary and discussion of the findings presented in Chapter Four are imparted in Chapter Five.
Chapter Five: Summary, Discussion and Significance of the Study

Introduction to the Chapter

Perceptions of the significance and use of phonological awareness, adhered to by kindergarten teachers, were presented in the descriptive data provided in Chapter Four. In addition, the kindergarten teachers’ behaviors associated with phonological awareness that are being displayed within the kindergarten classroom context were presented. Chapter Five will examine the results of the current descriptive research in a more comprehensive manner. The chapter begins with the purpose of the study being stated as the research questions; null hypotheses, guiding questions and statement of the problem are reiterated. Chapter Five will proceed with a review of the methodologies employed for the study. A summary of the research findings will be followed by a discussion of the results. Within the discussion section the following items will be addressed: an interpretation of the findings, the relationship of the current study to previous research, implications for practice, limitations of the study, and recommendations for future research. Chapter Five will conclude with a summary and concluding remarks.

Purpose of the Study

Kindergarten teachers’ perceptions of phonological awareness use and relevance impact the reading abilities of their students. Educators of kindergarten students need to be aware of their impacting behaviors and reflect their phonological awareness knowledge in their daily classroom experience in order to be proactive in minimizing or eliminating the struggling readers who attain reading deficits during their first years in school. Research associated with early literacy skills acknowledges that phonological
awareness is an essential component in a kindergarten reading program. Teachers who provide their kindergarten students with an intentional focus on phonological awareness provide a meaningful link between oral communication and reading. As one reviews current research, it becomes apparent that there is a gap between how theory, associated with phonological awareness, is connecting with practice in the kindergarten classroom context. The current study was developed to address this problem. The primary research question focused upon for the study was, What are the perceptions of and behaviors of kindergarten teachers in relation to phonological awareness instruction? A secondary question considered was: Is there a significant relationship between phonological behaviors and teachers’ years of experience?

The null hypotheses associated with the secondary research question, and utilized to answer the fourth guiding question for the study included:

1. There is no significant difference between the frequency of behaviors associated with the use of formal phonological awareness assessments and the groups, years of teaching experience and years of kindergarten teaching experience.

2. There is no significant difference between the frequency of behaviors associated with instruction of specific phonological awareness skills, and the groups, years of teaching experience and years of kindergarten teaching experience.

3. There is no significant difference between the frequency of behaviors associated with the incorporation of phonological awareness activity centers, and the groups, years of teaching experience and years of kindergarten teaching experience.

Four guiding questions were developed to provide direction for the study. These four questions were:
1. What are the kindergarten teachers’ perceptions toward using explicit phonological awareness instruction in relation to the kindergarten reading program?

2. Do kindergarten teachers perceive phonological awareness skills as a significant component of the kindergarten reading program?

3. What are the instructional behaviors related to phonological awareness that are exhibited by the kindergarten teachers in the classroom?

4. Do the behaviors associated with phonological awareness vary according to the years of experience of kindergarten teachers?

Through survey and correlation research, the study addressed each of these questions to provide descriptive data that displayed the perceptions and behaviors, associated with the significance and use of phonological awareness instruction, reported by a sample of kindergarten teachers.

**Summary of Methodology**

As noted in detail in Chapter Three, descriptive research, combining survey and correlation methodologies, was the quantitative method utilized for the study. In the fall of 2009, the survey collection process began. A pretest was conducted initially with three individuals who had no direct connection with kindergarten. The pretest was conducted to examine the clarity and comprehensiveness of the instrument. A field test followed the pretest with nine individuals who would be considered to have significant experience in reading, kindergarten, early literacy and special education. The field test participants provided feedback regarding any ambiguity, inadequacies, or misinterpretations represented in the instrument. Based on the feedback received from the field test
participants, the instrument was revised and refined. The actual instrument distributed contained 35 questions with varying question types to correspond to the different aspects of phonological perceptions to be considered. The *Phonological Awareness Perceptions* section of the instrument contained Likert scale items exploring the frequency of agreement for the perception statements provided. Within the *Phonological Awareness Behaviors* section, items utilizing a rating scale were included to acquire the frequency of specified behaviors. *Reading Instruction*, the third section of instrument items, contained five multiple choice items which was included to support the data attained in the previous 2 sections. At the end of the survey instrument, an open-ended item was incorporated for participants to add any additional comments related to phonological awareness which were not addressed in the preceding sections of the instrument. The study was implemented using the following procedures:

1. A mail-in instrument was sent to 243 kindergarten teachers in 85 elementary school sites in the target school district.
2. After 2 weeks, a follow up postcard was sent in the mail to all of the schools which had outstanding instruments.
3. A follow up e-mail was sent through the kindergarten website, after 3 weeks, asking for remaining instruments to be returned.
4. After 4 weeks, a follow up phone call was made to any schools which continued to have instruments that had not been returned.

The data attained from the 151 returned survey instruments were entered into the computer using SPSS, version 18. After conducting the survey, and collecting the data, an analysis was completed to attain a descriptive profile of the perceptions and behaviors
associated with phonological awareness that were indicated by the kindergarten teachers. The data attained from the study was presented in corresponding tables, and further graphic representations (i.e., dot plots), when applicable. The descriptive data included frequency numbers and percentages pertaining to the responses given for the Likert scale statements (related to perceptions) and rating scale items (related to behaviors). In addition, since a rating scale, containing ordinal measurements, was utilized for the frequency of behavior items, it was determined that a more descriptive understanding of the frequencies could be attained by accessing a cumulative score for each item, and using this total to provide a mean score for the frequency of behaviors overall. The mean data assisted in describing the frequency of behaviors as a whole construct. To display the descriptive data for the guiding question related to the groups represented in the target population by years of teaching experience, and years of kindergarten teaching experience, comparative frequency tables were utilized to display the frequency numbers and percentages. Similar to the rating scale considerations for the target population as a whole, additional considerations were needed to display the descriptive data for the groups. To display the data between the identified behaviors and the teaching groups more extensively, Spearman’s correlation coefficient was utilized to discover any relationships in the descriptive data. The data attained from the target population were utilized to provide a descriptive profile of perceptions related to the significance, use and behaviors associated with phonological awareness.

**Research Findings**

The results of the survey and correlation research conducted with kindergarten teachers in a target population were documented in Chapter Four. The following is a
summary of the findings presented in that chapter. Instruments were returned from 151 of 243 potential participants, representing 62% of the target population. The demographic data revealed that 97.4% of the survey respondents were female kindergarten teachers. Most of the kindergarten teachers represented were from an all day / alternate day kindergarten program (68.9%) and taught a junior / senior kindergarten blended class (87.4%).

In the instrument section, *Phonological Awareness Perceptions*, items pertaining to the use and significance of phonological awareness were presented. In relation to the items that focused on the use of phonological awareness as a preventative reading strategy, the majority of respondents agreed that phonological awareness can be used as a preventative strategy in items 2, 6, and 10. A high percentage of respondents (40.4%) indicated an undecided response in relation to whether reading difficulties in grade one are the result of no phonological awareness instruction. In relation to the items that focused on the use of phonological awareness as a reading predictor, an equal percentage of respondents (39.7%) indicated that they either agreed or were undecided about the statement that daily phonological awareness instruction is useful for predicting reading difficulties. In addition, 67% of the respondents indicated an agreement response in association with the statement that phonological awareness as a predictor can have an impact on literacy in the later grades. Statements referring to kindergarten teachers’ perceptions of the significance of phonological awareness were also included in the *Phonological Awareness Perceptions* section of the instrument. In reference to perceptions of the significance of phonological awareness as a reading skill, 94.1% of the respondents agreed or strongly agreed that phonological awareness is an essential reading
skill in kindergarten. Similarly, 90.1% of the respondents indicated either an agree or strongly agree response in relation to the significance of the need for kindergarten students to know how sounds connect to letters to be able to read. In addition, 83.4% of the kindergarten teachers reported an agree or strongly agree response in regards to the instrument item that stated that daily phonological awareness instruction and activities are necessary in kindergarten. Perceptions related to the significance of phonological awareness as part of reading skill development with phonics were included in the *Phonological Awareness Perceptions* of the instrument. There was a 61.6% agreement indicated by the kindergarten teachers that phonological awareness and phonics should be taught together. Many of the respondents recognized the distinctive features of phonological awareness and phonics, noted in item 3 (47.0%) and item 17 (55.6%). A high frequency percentage (71.6%) was reported for the disagree and strongly disagree responses for the statement that phonological awareness focuses on sounds. (With an additional 7.9% of the respondents indicating an undecided response.) In relation to perceptions about the significance of explicit phonological awareness instruction, 39.7% of the respondents agreed to the need for formal, intentional teaching of phonological awareness through explicit instruction. In contrast, 45.7% agreed that phonological awareness instruction should occur through incidental and informal ways.

In the *Phonological Awareness Behaviors* section of the instrument, the frequency of kindergarten teachers’ behaviors associated with phonological awareness was focused upon. For item 20, which related to the frequency of formal assessment behaviors, the following frequencies became apparent: daily 5(3.3%); once a week, 6(4.0%); 1-3 times per month, 89(58.9%); and never 24 (15.9%) from a valid total of 124 (27 missing). The
average frequency for behaviors associated with formal phonological assessments was
3.06, which indicated a little less than 1-3 times per month. The frequency of behaviors
related to the instruction of specific phonological awareness skills were obtained with a
mean score for items 21-25 of 2.043 which was slightly higher than once per week. The
data in relation to the frequency of teaching specified phonological awareness skills
signified that the average kindergarten teacher in the sample teaches one or more of the
skills related to phonological awareness approximately once a week. In regards to the
frequency of incorporating phonological awareness activity centers into the kindergarten
program, a mean score of 2.82 was derived from the cumulative score totals. The
findings suggested that the respondents reported that their students complete one or more
activity centers related to segmenting, deleting, blending, rhyming, and syllabication
between once a week and 1-3 times per month. The descriptive data findings indicated
that kindergarten teachers appear to teach phonological awareness skills more frequently
than they incorporate phonological awareness activity centers in their kindergarten
classrooms.

In the Reading Instruction portion of the instrument, five items were incorporated
into the instrument to support the perception data and behavior data presented in the
previous two sections. The highest frequency of responses for item 31, focusing on what
the most essential reading skill is to be taught in kindergarten, related to print concept
awareness (38.8%). The frequency numbers and percentages displayed considerable
variation for item 33, related to the use of phonological awareness to predict reading
abilities, yes responses = 43%; no responses = 14.1% and undecided responses = 43%. In
relation to item 34 associated with the frequency of respondents’ use of phonological
awareness centers, the majority of the kindergarten teachers (53.1%) indicated a no response. Intentional planning through the allocation of time was the focus of item 32 in the instrument. Daybook planning was the response with the highest frequency (62.2%). The majority of the respondents indicated a no response for lesson plans, unit plans and long range plans. Item 35 on the instrument focused on formal teaching of specific phonological awareness skills. The highest frequencies in responses indicated that most kindergarten teachers teach phoneme isolation, phoneme blending and phoneme segmenting. Of the 147 valid respondents, 94 indicated that they do no teach phoneme deletion.

In consideration of guiding question four for the current study, which focused on comparing the descriptive results in relation to groups, years of teaching experience, and years of kindergarten teaching experience, the frequencies for each of the items in the *Phonological Awareness Behaviors* section of the survey were examined. For items 20-30, a Spearman’s correlation coefficient measurement was completed to discover any potential relationships between the frequency of behaviors and years of teaching with regards to the following: intentional use of formal phonological awareness assessments; the mean of items associated with instruction of specific phonological awareness skills (items 21-25); the mean of items associated with incorporating phonological awareness activity centers (items 26-30). The following findings emerged from the statistical data: there is no evidence of a relationship between item 20 and years of teaching experience; there is no evidence of a relationship between the mean of items 26-30 and years of teaching experience. There is good evidence of a potential relationship between the mean of items 21-25 and years of teaching experience, as noted in the *p*-value of .003. There is
good evidence of a potential relationship between the mean of items 21-25 and years of kindergarten teaching experience, as noted in the $p$-value of .002. It is not the intent of the current descriptive study to explore these relationships however, it can be observed as ones for future consideration.

The following findings emerged from the survey data regarding phonological awareness perceptions and usage (items 31-35), and the groups, years of teaching experience and years of kindergarten teaching experience. Correlational tests were not conducted on this data since the findings did not pertain to behaviors associated with items 20-30. This information is only added to provide additional background data for the descriptive profile of the survey participants. In regards to item 31, the majority of respondents for those with greater than 6 years of teaching experience reported that print awareness concepts are the most important reading skill to teach in kindergarten. Most of the responses for the 0-5 years of teaching experience indicated that phonics is the most important reading skill. According to the years of kindergarten teaching experience, the respondents from the 0-5 (40.3%) and 11-20 (45.2%) groups reported that print concept awareness skills are the most important reading skills. The 6-10 group indicated phonological awareness (32.4%) and phonics (32.4%) were equally important, and the greater than 20 years group indicated that phonics (42.9%) was the most important reading skill. Similar to the entire sample, item 33 displayed a variation in responses for each of the year groups. A high percentage in both the years of teaching experience and the years of kindergarten teaching experience indicated an undecided response (64%). For item 34, related to activity centre use, those with 0-5 and 6-10 years of teaching experience had a frequency percentage of 50% for both yes and no responses. Those
with greater than 10 years of teaching experience reported a no response more frequently. In reference to years of kindergarten teaching experience, the majority of respondents in the 0-5 years, 6-10 years and > 20 years indicated a no response, with the 11-20 years group indicating a yes response. Therefore, the majority of respondents do not appear to use activity centers associated with phonological awareness. For item 32, related to intentional planning, those with 0-5 and 6-10 reported allocating time for phonological awareness in daybook planning. Those with >11 years of teaching experience indicated that they allocate time in daybooks, lesson plans, and unit plans. For those with 0-5 years or > 20 years of kindergarten teaching experience, most of the respondents indicated using daybooks for intentional planning of phonological awareness. Kindergarten teachers with 6-10 years of kindergarten teaching experience reported using daybooks, and unit plans for their planning. Those respondents in the in the 11-20 years of teaching kindergarten experience group indicated in their responses that they allocate time for phonological awareness in daybooks, lesson plans, unit plans and long range plans. Item 35, related to teaching specific phonological awareness skills, had a consistency in responses for those in the years of teaching category. Most of the respondents in each of the year groupings indicated that they taught phoneme isolation, phoneme blending and phoneme segmenting. In regards to the years of kindergarten teaching experience, a high number of those with 0-10 years indicated that they taught phoneme isolation, phoneme blending and phoneme segmenting. Those with > 11 years indicated that they also taught each of those skills, and in addition, the majority in these groupings also indicated that they taught phoneme deletion. Overall, a Spearman’s correlation coefficient conducted using the data from items 20-30 indicated that there is a possibility of relationships
between years of teaching experience and the mean of items associated with teaching phonological awareness, as well as years of kindergarten teaching experience and the mean of items corresponding to teaching phonological awareness.

Additional findings which resulted from the research surfaced from the open-ended item located at the end of the instrument. Respondents were asked to add any additional information through the use of specific comments. The comments received would be utilized to enhance the analysis of the descriptions obtained through the descriptive data attained from the other two sections of the instrument. Four themes emerged from the compilation of comments received from the respondents. These themes which became apparent from several individuals with similar comments included: an apparent connection between phonological awareness and writing (rather than reading); a lack of intentional, explicit teaching of phonological awareness skills; an acknowledgement of a lack of phonological awareness training; and items with no direct relevance to phonological awareness. With an awareness of the results of the descriptive data which has been attained through the current survey study, a discussion of these results can be stated.

**Discussion of Results**

The significance of phonological awareness to young children’s present and future reading success is well documented in reading research. A kindergarten teacher’s role in providing an effective reading program comprised of the essential reading skills is key to a child acquiring the skills necessary to move from oral communication to reading. Phonological awareness skills provide a link between oral communication and reading for young learners to better understand how language is used in oral and written forms.
How teachers perceive the significance and use of phonological awareness, can impact the behaviors which are exhibited in kindergarten classrooms. A gap has been noted in research in relation to the perceptions kindergarten teachers have in regards to the significance and use of phonological awareness. In addition, an awareness of the actual behaviors being demonstrated in kindergarten classrooms is not well known. The descriptive data presented in Chapter Four of this study has revealed perceptions of the use and significance of phonological awareness, and the frequencies of behaviors, related to phonological awareness, which are occurring in the kindergarten classroom context of a sample of kindergarten teachers. The findings which have resulted hold relevance to the current study.

**Interpretation of the Findings**

A descriptive profile of the perceptions and behaviors associated with phonological awareness resulted from the data attained through this study. Through an examination of the descriptive statistics, several findings have emerged which can be interpreted. Within the demographic data, a majority of the study participants (47%) had 0-5 years of kindergarten teaching experience with variations in actual teaching experience. The results which have been attained may be influenced by a higher percentage of teachers with only a few years of kindergarten experience.

The high percentage of agree or strongly agree responses (94.1%) for item 1 suggest that the kindergarten teachers in this study recognize the significance of phonological awareness as an essential reading skill. However, in item 31, most of the respondents (38.8%) indicated that print concept awareness was the most essential reading skill in kindergarten, and an additional 22.4% indicated that phonics was the
most essential. In addition, the respondents reported higher percentages when agreeing with statements related to the significance of phonological awareness as a preventative strategy (indicated by the results attained in items 2 and 6), than in statements related to the significance of phonological awareness as a prediction strategy. For items 9, and 33 related to phonological awareness as a predictor, a high frequency of undecided responses were reported (item 9, 39.7%; item 33, 43%). A clear distinction between phonological awareness skills and phonics skills was not achieved from the responses as 41.1% of the respondents agreed or were uncertain in relation to both of these skills teaching the same strategies. This finding was compounded by the 71.6% of respondents who disagreed or strongly disagreed that phonological awareness focuses only on sounds. A comprehensive understanding of the grapheme focus of phonics and the phoneme focus of phonological awareness by the respondents was not evident from the descriptive data results. It appears from the data that the distinctions of these two reading skill areas are not well known. A significant finding in the study was in relation to kindergarten teachers’ perceptions of the significance of explicit, formal phonological awareness instruction. The descriptive data displays a frequency percentage of 58.4% of respondents who reported agreement or strong agreement for the use of incidental, informal phonological awareness instruction. In contrast, a frequency percentage of 45.1% of kindergarten teachers responded with disagree or strongly disagree in relation to the use of explicit, formal phonological awareness instruction. According to this higher frequency supporting incidental and informal instruction, it appears that many kindergarten teachers do not perceive explicit instruction as essential in a kindergarten program. Furthermore, several of the comments from kindergarten teachers for the open-
ended item on the instrument made reference to short impromptu lessons, used for transition times or when waiting in a line. This relevant finding was compounded with the data attained from item 14, whereby 83.4% of the respondents indicated that daily phonological awareness instruction and activities are necessary. In regards to this data, even though respondents indicated the significance of phonological awareness, their perceptions were not reflected in the behaviors which they recorded. For example, in relation to daily instruction, the results in the mean of items 21-25 pertaining to the frequency of instruction, displayed that the average kindergarten teacher formally taught one or more of the specified phonological skills 2.043 which translates to slightly higher than a score for once a week. Although the respondents indicated that daily instruction is necessary, the descriptive data shows that many teachers do not include daily instruction into their kindergarten classroom experience. Similarly, in relation to daily center use, the kindergarten teachers acknowledged the need for phonological awareness center usage (indicated in item 14). However, in the data pertaining to the incorporation of phonological awareness centers, the findings related to the frequency in which specific activity centers are utilized in kindergarten classrooms is 2.82, which translates to between once a week or 1-3 times per month. Although kindergarten teachers perceive the use of daily phonological awareness centers as necessary, the descriptive data indicates that the behaviors which are occurring in the classroom, related to activity center usage, do not tend to be on a daily basis. The results of item 35, related to explicit instruction related to specific phonological awareness skills, indicated a high, consistent number of yes responses (107 out of 147) for the implementation of phoneme segmenting skills in a kindergarten reading program. In contrast, a high consistent number of no
responses (94 out of 147) were stated for the incorporation of phoneme deletion skills in the kindergarten classroom context. Although all of the phonological awareness skills stated in this instrument item are important for attaining a greater understanding of language, deletion skills appeared to be insignificant to many of the respondents. Short-term, intentional planning methods, particularly the use of a daybook (62.2%) are the popular method for allotting time for phonological awareness instruction. In contrast, long-term planning, particularly in the form of long range plans (60.8%) is the least preferred method for allotting time for phonological awareness instruction. The mean of items associated with teaching phonological awareness tends to lower as the years of teaching experience, and years of kindergarten teaching experience increase (particularly observed for those with > 20 years of experience). Perhaps this is a trend associated with gaining a greater awareness of the significance and use of phonological awareness with greater experience; however, this relationship is not to be inferred for the current study. This observation has just been noted through the descriptive data presented in the tables.

As the key findings for the study are considered, the following interpretations can be stated that relate specifically to the four guiding questions. Question 1 stated, What are the kindergarten teachers’ perceptions toward using explicit phonological awareness instruction in relation to the kindergarten reading program? The results of the study suggest that kindergarten teachers perceive phonological awareness as having a use as a prevention strategy. Many respondents are undecided about their perception of the use of phonological awareness as a prediction strategy. The second guiding question for the study asked, Do kindergarten teachers perceive phonological awareness skills as a significant component of the kindergarten reading program? The majority of
kindergarten teachers in the survey perceived phonological awareness as an essential early reading skill, but do not perceive it as the most essential skill for a kindergarten reading program. Many kindergarten teachers do not clearly perceive the distinct characteristics associated with phonological awareness skills in comparison to phonics skills. For example, several of the respondents are not aware that phonological awareness skills focus only on sounds (phonemes). The majority of respondents perceive incidental, informal instruction as a significant method of incorporating phonological awareness instruction rather than explicit, formal instruction. The third guiding question, related to the presence of phonological behaviors asked, What are the instructional behaviors related to phonological awareness that are exhibited by the kindergarten teachers in the classroom? The frequency of formal assessments, explicit phonological awareness teaching, and the incorporation of specific phonological awareness activity centers all comprised the descriptive data for this guiding question. Formal assessments occur on an average of 1-3 times per month. Explicit teaching of specified phonological awareness skills occurs on an average of slightly more than once per week. Activity centers related to phonological awareness are incorporated into kindergarten classrooms between once per week and 1-3 times per month. The fourth guiding question for consideration was, Do the behaviors associated with phonological awareness vary according to the years of experience of kindergarten teachers? The descriptive data presented in Chapter Four displays and details the relationships between the behaviors of the sample population, and the groups, years of teaching experience and years of kindergarten teaching experience. There are two potential relationships presented in the data which have been described more fully within the results presented in Chapter Four.
Overall, the findings obtained from the study provide connections to research related to phonological awareness.

**Relationship of the Current Study to Previous Research**

**Perceptions of the significance of phonological awareness.** The significance of phonological awareness to a young child’s reading success is well documented in recent research. Stahl, Duffy-Hester, and Stahl (2006) asserted, “the key to the development of the alphabetic principle, word recognition, and invented spelling is phonological awareness” (p. 129). Letter knowledge and word knowledge associated with reading, and spelling knowledge associated with writing, depend on an understanding of how sounds work in isolation and in combinations. Goswami (2000) stated, “phonological awareness involves the ability to think more consciously about the phonemic segments symbolized by letters” (p. 348). The significance of phonological awareness as an early reading skill, in comparison to phonics, and through explicit instruction were all topics considered in the current study. The perceptions which kindergarten teachers have in these three significant areas can have an impact on the reading program which is developed and delivered to kindergarten students. Shaughnessy et al. (2004) wrote, “it is crucial that early childhood educators realize the importance of oral language skills for literacy development and understand how to nurture young children’s language development” (p. 68). The perceptions of the respondents for the current study, in relation to the significance of phonological awareness as an important reading skill, were favorable. The majority of the kindergarten teachers recorded that they recognized the significance of phonological awareness. It should be noted however, most survey respondents did not perceive
phonological awareness to be the most essential skill in the kindergarten reading program. This was an important finding due to the significance of phonological awareness to the impact it has on reading abilities in the present and future. The significance of phonological awareness as an essential early reading skill is evident within recent research. For, as Mather, Bos and Babur (2001) stated, “Results from longitudinal studies suggest that 75% of the children who struggle with reading in third grade, particularly with the development of phonological awareness and decoding, will still do poorly at reading at the end of high school” (p. 472). Furthermore, Gillon (2004) declared, “the research findings convincingly demonstrate that phonological awareness is crucial for reading and spelling success” (p. 49). Kindergarten teachers’ perceptions of the significance of phonological awareness in an early reading program have the potential to impact the instructional behaviors presented in the classroom context.

Within the findings of the current study, the kindergarten teachers perceived a connection between phonological awareness and phonics. However, the significance of the distinctive features of these two reading skills are not fully revealed by the respondents. Research clearly identifies the distinctive significance of phonological awareness and phonics to reading skill development. Schuele and Boudreau (2008) contended,

phonological awareness, often confused with phonics, is quite different from phonics. A child who demonstrates phonological awareness has the ability to analyze the sound structure of oral language. In pure form, phonological awareness tasks do not involve print. Phonological awareness
tasks require a child to analyze, make judgments about, or manipulate *sounds* in spoken words. Thus, only spoken stimuli are needed. In contrast, in phonics children work with *print* symbols (i.e., letters) that represent the sounds of oral language (p. 6).

The data for the current study reflected that many of the kindergarten teachers who participated in the study do not perceive phonological awareness as a skill which focuses on sounds. In regards to the significance of explicit, formal instruction, many of the respondents in the survey indicated that they perceive incidental, informal instruction as a sufficient method for teaching phonological awareness. The need for explicit, formal phonological awareness instruction is well documented in research. Ehri and Roberts (2006) asserted, “explicit instruction provided in kindergarten is most commonly the way that children learn to focus on and analyze phonemes in words” (p. 118). Through explicit instruction, young students become associated with the terminology and strategies associated with varying phonological awareness skills. For, as McGill-Franzen (2006) further stated,

kindergarteners not only have to attend closely to the sounds of language so that they can segment speech, but they also have to have an understanding of the vocabulary we use to refer to language. Asking a child to listen for a ‘rhyme’ or a ‘beginning sound’ is a meaningless exercise unless she understands the concept we are referring to (p. 62).

Formal instruction allows young students to learn specific phonological awareness skills in an explicit manner rather than hoping that they will learn a skill through an incidental reference to a skill and no related activity. Blachman (2000) conveyed, phonological
awareness “does not come naturally for many beginning readers” (p. 484). Similarly, Remson (2007) exclaimed, “awareness that speech can be segmented into the phonemic units represented by the letters of the alphabet does not develop naturally as a consequence of learning to speak” (p. 96). Young children need to understand the language which they are learning to be able to use it in more extensive ways, and this occurs through intentional instruction. Kindergarten teachers who perceive the significance of phonological awareness in relation to its characteristics, and potential as part of an essential early reading skill, provide their students with oral skills which can be beneficial for attaining a greater understanding of how language transfers to reading in a written form.

**Perceptions of the use of phonological awareness.** Within this study, responses associated with perceptions of the use of phonological awareness were obtained for the descriptive data. According to research, phonological awareness has two significant uses in early reading – as a reading strategy for the prevention of reading deficits, and for predicting potential reading difficulties. In relation to prevention, Burke, et al. (2009) stated, “phonological awareness is the first essential element of a prevention-based approach to reading failure and disability” (p. 209). The findings of the current study suggested that the respondents perceive phonological awareness to be useful for preventing future reading deficits. However, the results of the descriptive data also suggested that the respondents do not fully perceive the significance of phonological awareness in relation to being a predictor of potential reading difficulties. With the implementation of effective emergent reading strategies, there exists the potential that, as Al Otaiba, et al. (2008) conveyed, “early and effective beginning reading instruction will
increase reading abilities, decrease retention rates, and reduce the need for special education services due to reading difficulties” (p. 282). Phonological awareness has two significant uses within a kindergarten program, prevention and prediction. Each of these uses assist young learners in proceeding successfully in their reading skill development. As teachers perceive both of these as significant, there is a potential to decrease, or eliminate reading deficits in the present and in the future.

**Phonological behaviors exhibited in kindergarten classrooms.** The instructional behaviors which teachers exhibit in the classroom impact the learning which occurs. In the document, *Early Reading Strategy*, it is written, “a major consensus of research is that the ability of teachers to deliver good reading instruction is the most powerful factor in determining how well children learn to read” (Ontario Ministry of Education, p. 10). The impact of a teacher’s classroom behaviors on a child’s reading development is confirmed in a statement by Pearson, et al. (2007), “teacher expertise [is] the critical variable in effective reading instruction” (p. 15). If a component of phonological awareness is not perceived as significant, or if it is not fully understood by kindergarten teachers, it may be intentionally omitted in the classroom practice. Those teachers who do not have a solid understanding of language structures may, according to Spear-Swerling, Brucker and Alfano (2005), “misinterpret assessments, choose inappropriate examples of words for instruction, provide unintentionally confusing instruction, or give inappropriate feedback to children’s errors” (pp. 268-269). Three specific behaviors were addressed through the instrument items: frequency of instructional behaviors associated with particular phonological awareness skills; allotment of time for the intentional planning of phonological awareness; and
incorporation of activity centers which focus specifically on phonological awareness skills. The findings of the current study suggested that the respondents perceived daily instruction and activities as relevant. However, when the focus was on the actual behaviors occurring in the kindergarten classroom context, the average for the teachers indicated that many teachers did not incorporate daily phonological awareness instruction and activities into their reading program. In relation to instruction, the average for the teachers indicated that they provided phonological awareness instruction approximately once a week. In relation to activity centers, the average for the teachers reflected that many teachers incorporate activity centers in their program either once a week or 1-3 times per month. To be an effective early reading program, students require opportunities to acquire an understanding of a skill, and apply their new understanding in a variety of learning experiences. The NAEYC (1998) wrote, “young children especially need to be engaged in experiences that make academic content meaningful and build on prior learning” (p. 2). The incorporation of daily instruction and daily activity centers allows for a consistency in learning. The descriptive data attained in this study indicated that several of the respondents recorded that they do not include phonological awareness centers in their kindergarten classroom. Activity centers provide a way for the knowledge about a skill to be applied in an authentic, experiential manner. Kirkland and Patterson (2005) argued, “by building language building activities and experiences into the regular curriculum and the daily routine of the classroom, teachers can meet the needs of all children related to language development” (p. 394). An application of practice to knowledge allows for reinforcement and consolidation to occur. Intentional planning for phonological awareness instruction and activity center use is an essential component of
the behaviors displayed by kindergarten teachers. Chard and Dickson (1999) revealed, “critical levels of phonological awareness can be developed through carefully planned instruction” (p. 1). The descriptive data recorded for the kindergarten teachers in the current study suggested that most teachers allot time for phonological awareness in daybook planning. Long range types of planning, such as unit plans, are not readily used to display the continuum of learning which is to occur pertaining to an understanding of phonological awareness. According to the data obtained for this study, when instruction occurs, many of the respondents include several phonological awareness skills into their kindergarten reading program. One essential skill however, tended to be omitted from a majority of the respondents in the study – phoneme deletion. Gillon (2004) emphasized, “skills at the phoneme level, such as phoneme analysis and deletion skills, have the strongest predictive power for long-term reading and spelling achievement” (p. 49). Students who have an opportunity to learn each of the varying skills associated with phonological awareness are able to understand more fully how oral language works which transfers to their reading abilities.

**Perception and behavior summary.** Teachers who have a thorough understanding of phonological awareness, its use and significance, in a kindergarten reading program often convey that information through effective instruction. The research identified in this study confirmed the significance of phonological awareness as an essential component of a kindergarten reading program. In addition, the research has described several behaviors which can be exhibited by teachers, such as daily instruction, intentional planning, and the incorporation of activity centers, to assist young learners in becoming readers. The descriptive data presented for this study provided a profile of the
perceptions which kindergarten teachers in a target population adhered to in regards to the significance and use of phonological awareness. Furthermore, the behaviors which the respondents report are presented within the data results. The perceptions and behaviors exhibited by a kindergarten teacher have the potential to impact the learning environment presented in the kindergarten classroom. When a greater understanding of the perceptions and behaviors associated with phonological awareness is attained, teachers have the opportunity to provide an early reading program whereby, the young students can better understand the oral-written connection of communication.

**Limitations of the Study**

As this study related to perceptions and behaviors associated with phonological awareness has unfolded, it has become apparent that some limitations have emerged which need to be acknowledged. An interpretation of the findings requires consideration of limitations associated with three particular areas of the study – perceptions of participants; instrument design and distribution; instrument validity and reliability.

**Perceptions of participants.** One limitation of the current study is in relation to the accuracy of the perception data attained from the survey participants. The kindergarten teachers may have provided an overrated response related to an idealistic perception of what should occur rather than a realistic perception associated with their own classroom practice. Furthermore, knowing that the focus of the study was associated with phonological awareness, respondents may have used that information as a reference for how to state their response. For example, recognizing that the survey relates to phonological awareness, this may have influenced their response for item one, whereby it
asked the participants to state their level of agreement in relation to phonological awareness is an essential reading skill.

**Instrument design and distribution.** As the instrument was developed for the current study, consideration was given to the clarity of the information presented, and the vocabulary utilized. A pretest and field test occurred to potentially eliminate any discrepancies related to the wording on the actual survey. However, it should be noted that there are participants who may have not fully understood some of the terminology which was presented through the statements. In relation to the distribution of the survey instrument, the response rate presented another limitation. Several follow-up strategies were utilized and a sticker incentive was incorporated into the mailing package to strive for a high response rate. Even though the researcher was striving for a significant number of returns by utilizing several follow-up methods, it is difficult to guarantee a high response rate.

**Instrument validity and reliability.** The purpose of the study was to attain a descriptive profile of data related to the perceptions and behaviors of kindergarten teachers associated with phonological awareness. However, since an instrument was not available, a two phase process was required to establish the reliability and validity of the survey. First, a field study was conducted to develop the properties of the survey instrument. From the feedback which was received from the field study participants, a refined instrument was developed by the researcher. Second, the revised instrument was distributed for the actual research. Since the field study contained a lot of qualitative feedback rather than statistical feedback, this allowed a limitation to surface.
Although the researcher gave careful consideration to when the instrument would be distributed so that the timing would occur during a fairly quiet month – meaning not during the staggered entry of students in September, and not during the focused assessment time in November – there were factors which may have influenced the results attained which cannot be directly controlled by the researcher. For example, the researcher would not be able to control the following conditions associated with completing the survey: an unfavorable environment in which the study was completed, distractions, individual schedules, inappropriate perception of the purpose of study and results, interest in the topic. Any of these factors may have attributed to the responses which were given on the instrument.

The potential relationships made between years of teaching experience and years of kindergarten teaching experience, and instrument items 20-30 need to be viewed with caution. Although the critical $p$-value indicated the potential for a few relationships, and there does not appear to be any reasonable alternative explanations, there is the possibility that another variable may have affected the results. Further research would be beneficial to eliminate any alternative possibilities.

A generalization of the results of the study to other kindergarten populations presents an additional limitation. The descriptive data attained for the study are from one target kindergarten teacher population in Ontario. The findings cannot be generalized to additional kindergarten teacher populations without the replication of the study in various contexts to validate the results. Although this study provides a descriptive profile of the perceptions and behaviors associated with kindergarten teachers representing a target
population, to discover whether the findings are similar or different to other kindergarten teacher populations additional research is recommended.

**Implications for Practice**

**Implications.** With the plethora of current research related to reading skill development, and the statistics which demonstrate the amount of students with reading difficulties later in their elementary school years, it has become apparent that research in reading holds a credible significance. The purpose of the current research study was to build upon recent research, and increase knowledge in relation to the perceptions and behaviors of kindergarten teachers, particularly in relation to the use and significance of phonological awareness. There are two specific areas in education in which the research findings have the potential to be used to enhance the learning needs of young students who are beginning their formal education journey. These two areas include: implications of the findings for educators, and the application of the findings to the classroom experience.

**Implications of the study for educators.** An understanding of the significance of phonological awareness allows an educator to develop curriculum which will engage the students in activities which are authentic and meaningful for the children’s reading skill development. Shaughnessey et al. (2004) maintain, “teachers need to have an understanding that literacy skills are developed in conjunction with oral language skills” (p. 2). Furthermore, Shaughnessey et al. affirmed, “it is crucial that early childhood educators realize the importance of oral language skills for literacy development, and understand how to nurture young children’s language development” (p. 68). In
kindergarten phonological awareness is an oral skill which enhances a connection between oral communication and reading. Phillips and Torgesen (2006) maintained, the early development of accurate and fluent phonemic decoding skills (alphabetic reading skills) is critical because learning to read involves everyday encounters with words that have never been seen before in print. These words are typically present in the child’s oral vocabulary, but their printed form is unfamiliar (p. 102).

Teachers who perceive phonological awareness skills as essential in the process of a student becoming a reader, are more likely to incorporate phonological awareness activities into their kindergarten reading program. Furthermore, kindergarten teachers who adhere to the significance of phonological awareness to support current and future reading abilities, are more likely to give careful consideration into planning and implementing explicit activities which will engage their students, and enhance their students’ understanding of these early literacy components. Teachers who implement meaningful phonological tasks in their daily classroom instruction provide their students with skills that ease the progression from oral communication to becoming a developing reader. Cassady, Smith and Putman (2008) maintain, “phonological awareness is an important prerequisite to reading success” (p. 511). In addition, kindergarten educators may ultimately impact students’ later reading achievements by providing them with the essential skills to support reading deficits. Snider (2001) writes,

IQ and perceptual ability were previously thought to determine developmental readiness to read, but current research suggests that they are less important than phonemic awareness … explicit training of phonemic
awareness tasks [as significant components of phonological awareness]
improves reading achievement (p. 203).

A greater awareness of the perceptions and usage of phonological awareness by
kindergarten teachers – those who have an opportunity to significantly impact emergent
readers – would provide foundational information to build upon.

As the current study has unfolded, descriptive data, in the form of frequency
numbers and percentages, have provided a profile of the perceptions and behaviors of
kindergarten teachers in one particular target population. The results indicated that
kindergarten teachers for this study perceived phonological awareness as a significant
reading skill, however, not the most important one in kindergarten. If teachers are not
connecting their perceptions with their behaviors, they may be restricting the
phonological awareness emphasis that is required for students to succeed in their reading
abilities. Clear distinctions of the characteristics of phonological awareness were not
apparent in the perceptions of how phonological awareness differs from phonics. Most of
the respondents disagreed that phonological awareness focuses only on sounds. In the
research cited earlier, the distinctive characteristics of phonics and phonological
awareness skills allow a young reader to understand the grapheme and phoneme
connection in reading in a more useful manner. Furthermore, the data displayed that the
respondents perceived daily instruction and daily activities as important. However, in the
behavior section, it appeared that the teachers are not demonstrating that perception in
their daily classroom experience. Research contained in this study indicated the need for
consistency in the instruction of phonological awareness in a reading program.
Consistency in the form of daily, explicit instruction focusing on the several skills
associated with phonological awareness. Due to the significance of phonological awareness in present and future reading abilities, teachers are required to be proactive and intentional in their efforts to decrease the staggering illiteracy rates and reading deficits in the early years of reading skill development. The descriptive data contained within this study reports that the survey respondents perceived the use of phonological awareness as a prevention strategy, but are less cognizant of the use of this skill as a predictor of reading difficulties. By utilizing formal phonological awareness assessments on a regular basis, an identification of the phonological awareness skill areas which are weaker can be attained, thereby, allowing for intervention to occur. As phonological awareness skills are assessed, monitored, and utilized for preventing and predicting reading deficits, there is a potential to decrease and eliminate the number of students who are identified as being at risk of reading difficulties. Therefore, it is important for kindergarten teachers to perceive phonological awareness as having a significant use in supporting students in their reading skill development for present and future success. Within the current study, the findings indicated that most of the respondents omitted phoneme deletion skills into their phonological awareness instruction. The research literature cited within this study has noted that all of the phonological awareness skills are important. The behaviors of the respondents in relation to deletion skills reflected a relevant omission, perhaps through the perception of not being significant, or perhaps from a lack of understanding of the significance of this particular skill. It is not the intention to make inferences for the current study, however, it is noteworthy to mention that an effective kindergarten reading program would include all of the phonological awareness skills. To be beneficial, students need to be taught to hear and manipulate sounds in words through each of the
phonological awareness skills. As students develop a greater sensitivity to the use of sounds, they are better equipped to transfer this new information for use in decoding words. For those teachers who do not perceive one skill, such as deletion, as relevant, it is helpful for them to educate themselves on the significance of each of the phonological skills. Joshi et al. (2009) contended, “if teachers do not understand the role each of these skills plays in reading and the links between these skills that either enable or disable the reading process … teachers will be unable to decipher, and therefore likely not deliver, the individualized remediation children need” (p. 394). Furthermore, becoming educated on the significance and use of all of the phonological awareness skills allows a kindergarten teacher to transfer that knowledge through their daily classroom practice. Blachman (2000) ascertained, “every teacher of young beginning readers should know why such instruction is important and how and when to provide it. All children need to learn about the segmental nature of speech and how the sound segments are represented in print” (p. 496). Implementing a reading program, in which phonological awareness skills are integrated daily into the classroom in purposeful ways, allows teachers to make a meaningful link between oral communication and reading communication for their students. A kindergarten teacher who perceives all components of phonological awareness as significant will likely demonstrate that importance in their classroom behaviors associated with reading.

**Applications for curriculum.** Changes in curriculum practices have been rapidly occurring within the last decade to reflect the need for students to learn particular skills which they will be tested on in state, and provincial tests. These changes have resulted in part from an increased awareness of skills that are lacking in specific
curriculum areas, such as reading, and have been influenced by increased societal demands. As educational reforms occur, there tend to be some skills that are overlooked, or taught incidentally. Kirkland and Patterson (2005) concur, “we are finding that as schools become more pressured to cover test content, the opportunities for oral language in classrooms diminish” (p. 395). Furthermore, Kirkland and Patterson (2005) continued, “the development of oral language, which ultimately impacts all aspects of curriculum, has been relegated to a more incidental by-product of many classrooms […] teachers feel the need to spend time on academic content, rather than allowing children opportunities to build language” (p. 391). Skills, particularly oral skills such as phonological skills, which are neglected may contribute to omitting an essential link in a child’s reading skill development. The foundational academic framework established in kindergarten will benefit students’ in their present and future learning. With a greater awareness of kindergarten teachers’ perceptions of the use of phonological awareness skills in their instructional practice, curriculum can be developed to support teachers’ understandings and implementation of this reading curriculum component. The findings of this study are useful for educational decision-making in relation to teachers’ awareness of the relevance of phonological awareness. A need for professional development in the area of phonological awareness relevance and usage has become apparent, particularly through the comments section of the instrument. To bridge the gap between the importance of phonological awareness, as identified in research, and the actual classroom experience, the current study data displays a need for educators to receive professional training related to instructional techniques which can be effectively utilized to enhance their reading curriculum. According to Spencer et al. (2008), “effective training must help
educators to thoroughly understand that speech maps to print (and not the reverse), to analyze speech without reference to print, and ultimately, to think clearly about how speech maps to print” (p. 518). Having a solid understanding of the link between phonological awareness and reading, prepares teachers to implement an effective kindergarten reading program. The information presented within this study provided a framework of descriptive data to determine whether kindergarten teachers are using phonological awareness in a manner which will enhance their students’ reading abilities. Overall, the conclusions obtained from the study should benefit the learning community in relation to the acquisition of an essential reading skill.

**Summary of implications.** As a result of the descriptive information obtained from this study, further research related to kindergarten teachers’ perceptions and usage of phonological awareness instruction, and their actual classroom behaviors associated with phonological awareness should be considered. Increasing amounts of studies related to kindergarten reading skill development are evolving gradually, but are still currently lacking. If educators want to be agents of change by assisting children to read – right from the beginning of formal schooling—they need to be consciously aware of the consequences (positive and negative) of their instructional choices. The current study has the potential to add to educational research in a manner that brings more awareness to how all aspects of early literacy need careful consideration – consideration which has the potential to decrease the reading difficulties which become more apparent as one’s formal schooling progresses. Students who acquire the needed reading skills early in their education, establish a framework for their overall achievement in the elementary school
years. The implications which have become apparent through this study are further reflected in the recommendations for future research.

**Recommendations for Future Research**

The descriptive data presented in this study provided a profile of the perceptions and behaviors of kindergarten teachers in a target population. The limitations which have surfaced as this study unfolded suggested that additional studies are required to enhance the validity of the findings.

It would be beneficial to replicate this study on additional kindergarten teacher populations to enhance the reliability and validity of the current findings. In addition, a mixed methods research study may prove to be beneficial for a focus such as this one related to respondent perceptions to assure more realistic perceptions, and decrease the amount of idealistic responses that may have resulted. Adding a qualitative component would also allow the researcher to answer any questions that arise as the study is being conducted in a specific learning environment established by the researcher.

Since there is a gap in research related to the perceptions and behaviors of kindergarten teachers associated with phonological awareness, it was the intent of the researcher to provide foundational framework on which to build future research upon. This study can provide a starting place to initiate discussion and further research pertaining to the significance and perceptions of phonological awareness to the classroom experience. It has not been the intention of the current study to establish a causal link, or relationship between kindergarten teachers’ perceptions of the significance of phonological awareness and their behaviors which contribute to student outcomes. Further studies will be required to investigate and substantiate these considerations.
A possible study stemming from this study would be to explore the relationship between how a kindergarten teacher’s perceptions and behaviors affect a student’s performance and outcomes in becoming a reader. Finding ways to coordinate theory and instructional practice benefits the young learners who are at the early stages of their literacy development.

Research related specifically to kindergarten is lacking. Al Otaiba, et al. (2007) ascertained, “notably little research has been conducted specifically in kindergarten classrooms” (p. 283). With recognition of the impact of early reading success on future reading abilities, research related to the kindergarten classroom experience is relevant and needed. Studies such as the current one can add to the fulfillment of understanding the essential components of a kindergarten learning environment. Further research will be required to explore the significance of each of those components and their impact on a child’s success in school as he or she progresses through the elementary school years.

Prevention and prediction of reading deficits are key to decreasing and eliminating the prevalence of reading deficits. Having a greater understanding of the perceptions associated with the significance and use of phonological awareness may lead to research connected with teacher behaviors which affect a student’s reading success outcomes. Burke, et al. (2009) stated, “the development and validation of critical indicators of early literacy skills for children for the purpose of preventing reading failure and disability should continue to be a priority” (p. 223). As kindergarten teachers develop a greater awareness of the significance and use of phonological awareness in their classroom experience, they have the potential to reverse the high numbers of students who struggle with reading deficits. Further research could explore the
connections between the teachers’ phonological awareness behaviors and students’ reading deficits.

Summary

Learning to read is an essential skill that initiates from an oral foundation. Kindergarten teachers have a significant role in assisting children on their journey to becoming literate citizens. There are several skills which contribute to a student’s reading success. Phonological awareness is one of the essential components of an effective early reading program. The perceptions and behaviors that a kindergarten teacher adheres to, in relation to phonological awareness, can have an impact on the reading program which is implemented and on the future reading success of the student. Research related to a kindergarten teacher’s perceptions and behaviors associated with phonological awareness are lacking. This study explored these perceptions and behaviors to provide a descriptive data profile. The primary research question utilized to fulfill this purpose stated, What are the perceptions of and behaviors of kindergarten teachers in relation to phonological awareness instruction? A secondary question considered was: Is there a significant relationship between phonological behaviors and teachers’ years of experience? Descriptive research, combining survey and correlation methodologies, was the quantitative research design used to present a description of the responses provided by kindergarten teachers from a target population. The findings attained in the descriptive data have the potential to contribute to a growing awareness of the significance and use of phonological awareness in reading skill development.
Concluding Remarks

As a growing number of children in North American schools continue to struggle on their journey to become a reader, a greater awareness of the relevant skills required to meet their learning needs is essential. Research indicates that phonological awareness has a significance and use that can benefit young learners – by potentially assisting to decrease or eliminate those who may become at risk of reading difficulties. As educators strive to provide an effective reading program that will move students toward reading success, they need to understand how phonological awareness works, and how to incorporate these skills in the classroom. It all begins with a kindergarten teachers’ perception of the significance and use of phonological awareness. If they perceive this reading skill as essential, and that perception is reflected in their daily classroom experience, then the students in their classrooms have an opportunity to develop a reading foundation which will be beneficial in the present and in the future. Phonological awareness, as an essential early reading skill, has the potential to link oral communication to reading in ways that impact an individual’s reading for a lifetime.
References


Block, C. C., Hurt, N., & Oakar, M. (2002). The expertise of literacy teachers: A continuum from preschool to grade five. *Reading Research Quarterly, 37*, 178-


Education Quality and Accountability Office. (2008). *Assessment of reading, writing and mathematics, primary division (grades 1-3) and junior division (grades 4-6)*. Toronto, ON: Queen’s Printer for Ontario.


Appendices

Appendix A: Survey Instrument

Appendix B: Results of Field Study

Appendix C: Summary of Instrument Comments

Appendix D: Survey Cover Letter

Appendix E: List of Specific Reading Behaviors Associated with the Emergent Reading Phase

Appendix F: Liberty University Internal Review Board Approval

Appendix G: Graphs Displaying Distributions Associated with Demographic Data
Appendix A: Survey Instrument

Kindergarten Teacher Survey Questions

Reading is an important skill that impacts future learning. As a kindergarten teacher, you have an important role in influencing a child’s beginning reading. Thanks for helping our children on their journey to becoming literate citizens.

Instructions: This survey will be used to attain a greater awareness of phonological awareness instruction usage in kindergarten classrooms. Throughout the survey, PA will be used for the term phonological awareness. Phonological awareness refers to a student’s understanding of how oral language can be divided into smaller units and manipulated in varying ways.

Please answer each question as accurately as possible. When you have completed this survey, please return it in the enclosed self-addressed envelope. All information given will remain anonymous. Specific information regarding how to complete the questions is stated below.

Kindergarten program information

The kindergarten grade which you currently teach is: (please circle one)

1) JUNIOR KINDERGARTEN
2) SENIOR KINDERGARTEN
3) JUNIOR / SENIOR KINDERGARTEN BLEND

Type of kindergarten program you currently teach is: (please circle one)

1) ALL DAY ALTERNATE DAYS
2) HALF DAY MORNINGS
3) HALF DAY AFTERNOONS
4) HALF DAY MORNING AND HALF DAY AFTERNOON

Phonological Awareness Perceptions

In the following section, please indicate your response to the following statements by circling the number which rates your level of agreement from 1 to 5, where 1 means you strongly disagree, and 5 means you strongly agree.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. PA is an essential reading skill in kindergarten.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
2. PA instruction can be used to prevent future reading difficulties.

3. PA and phonics instruction teach the same reading strategies.

4. Reading difficulties in grade one are often the result of no PA instruction.

5. Students need to know how sounds connect to letters to be able to read.

6. Young students who experience reading difficulties would benefit from PA instruction.

7. PA instruction should occur incidentally and informally in the kindergarten classroom.

8. Reading difficulties cannot be prevented in kindergarten.

9. Daily PA instruction is useful for predicting reading difficulties.

10. Explicit PA instruction can decrease or eliminate early reading difficulties.

11. PA instruction focuses only on the sounds in words.

12. Reading difficulties cannot be identified until grade one or two.

13. PA and phonics should be taught together.

14. Daily PA instruction and activities are necessary in kindergarten.

15. PA instruction in kindergarten has an impact on reading in
the later grades. | 1 | 2 | 3 | 4 | 5
---|---|---|---|---|---
16. PA should be explicitly taught with formal lessons. | 1 | 2 | 3 | 4 | 5
17. Phonics should be taught before PA. | 1 | 2 | 3 | 4 | 5
18. Beginning readers should be able to isolate sounds in words. | 1 | 2 | 3 | 4 | 5
19. Learning to read involves blending sounds to form words. | 1 | 2 | 3 | 4 | 5

**Phonological Awareness Behaviors**

In the following section, please rate the frequency of the following items according to your current classroom practices by placing an X in the box that best answers the questions.

<table>
<thead>
<tr>
<th>20. How often do you formally assess phonological awareness skills?</th>
<th>Daily</th>
<th>Once a week</th>
<th>1-3 Times a Month</th>
<th>Never</th>
</tr>
</thead>
</table>

**How often do you teach how to …**

21. segment sounds?
22. delete sounds?
23. blend sounds?
24. rhyme words?
25. speak words in syllables?

**How often do your students complete activity centers related to …**

26. segmenting sounds?
27. deleting sounds?
28. blending sounds?
29. rhyming words?
30. the syllabication of words?
Reading Instruction

31. Recognizing that all reading skills are essential, which reading skill would you consider the most important to teach in the kindergarten reading program? (circle one)

1) PHONICS
2) FLUENCY
3) PHONOLOGICAL AWARENESS
4) TEXT COMPREHENSION
5) VOCABULARY
6) PRINT CONCEPT AWARENESS

32. Please indicate where you allocate time for phonological awareness instruction in your planning. (Circle all that apply)

1) DAYBOOK PLANS
2) LESSON PLANS
3) UNIT PLANS
4) LONG RANGE PLANS
5) I DON’T INCLUDE PHONOLOGICAL AWARENESS IN MY PLANS.

33. Would you use a phonological awareness assessment to predict reading abilities? (circle one)

1) YES
2) NO
3) UNDECIDED

34. Do you have classroom centers which focus only on phonological awareness skills?

1) YES
2) NO

35. What type of phonological awareness skills do you formally teach in your kindergarten classroom? (Circle all that apply)

1) PHONEME ISOLATION (recognizing individual sounds in words)
2) PHONEME BLENDING (combing sounds to form a word)
3) PHONEME SEGMENTING (breaking a word into separate parts)
4) PHONEME DELETION (recognizing the word that remains when a letter is removed)
5) I DON’T FORMALLY TEACH ANY OF THESE ACTIVITIES.
Are there any additional comments about how you teach phonological awareness in your classroom that you would like to add?

________________________________________________________________________

____________________

Participant Information

Gender

__FEMALE
__MALE

Years of Teaching Experience (circle one)

1) 0 – 5 YEARS
2) 6 – 10 YEARS
3) 11 – 20 YEARS
4) OVER 20 YEARS

Years of Kindergarten Teaching Experience (circle one)

1) 0 – 5 YEARS
2) 6 – 10 YEARS
3) 11 – 20 YEARS
4) OVER 20 YEARS

Thank you very much for participating in this survey. Your prompt response is appreciated.
Appendix B: Results of Field Study

Qualitative feedback was provided by the respondents but is not included in this summary of frequency of responses for the field test.

<table>
<thead>
<tr>
<th>Item and Text</th>
<th>Yes</th>
<th>No</th>
<th>NR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do the instructions presented at the beginning of the survey adequately describe the procedures to be followed to complete the survey? If no, please explain.</td>
<td>8</td>
<td>1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>2. Do the instructions provided at the beginning of each section of questions adequately describe the procedures for completing the specific question types in that particular section? If no, please explain.</td>
<td>9</td>
<td>0</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>3. In the section, phonological awareness perceptions, is the Likert scale appropriate for each question? If no, please specify the questions which were not appropriate, and explain.</td>
<td>6</td>
<td>3</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>4. In the section, phonological awareness behaviors, was the rating scale appropriate for each question? If no, please specify the questions which were not appropriate, and explain.</td>
<td>8</td>
<td>1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>8. The focus of the kindergarten teacher survey is on perceptions and behaviors associated with phonological awareness. Did each of the survey questions maintain the focus? If no, please indicate questions which deviated from the focus.</td>
<td>7</td>
<td>2</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

NR=No response

Field Test, Item 5, In the section, reading instruction, please rate the questions according to your degree of agreement that each question addresses phonological behaviors in the kindergarten classroom.

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>No Response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>32</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>33</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>34</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>35</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>9</td>
</tr>
</tbody>
</table>
Field Test, Item 6, Was the survey “respondent friendly” – from the introduction through to the end in the following areas?

<table>
<thead>
<tr>
<th>Features</th>
<th>Yes</th>
<th>No</th>
<th>NR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Length of questions</td>
<td>9</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>b. Format of survey</td>
<td>8</td>
<td>1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>c. Readability (ease to read)</td>
<td>8</td>
<td>1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>d. Appropriate terminology</td>
<td>8</td>
<td>1</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>e. Readily answerable</td>
<td>9</td>
<td></td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

NR=No Response

Field Test, Item 7, In the following section, please rate the statements by circling the number which corresponds to your level of agreement from 1 to 5, where 1 means you strongly agree, and 5 means you strongly disagree.

<table>
<thead>
<tr>
<th>Survey components</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. The survey focuses on perceptions of phonological awareness.</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>b. The survey is appropriate for kindergarten classroom practices.</td>
<td>3</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>c. The survey considers the behaviors of phonological awareness in the classroom.</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>d. The survey makes connections between phonological awareness and other reading skills.</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

Field Test, Item 9, Please indicate how long it took you to complete the kindergarten teacher survey.

<table>
<thead>
<tr>
<th>Time</th>
<th>5 minutes</th>
<th>10 minutes</th>
<th>15 minutes</th>
<th>20 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totals</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix C: Summary of Instrument Comments

Contained within the following chart is a compilation of survey comments for the open-ended question presented at the end of the phonological awareness survey. Each of the statements in the comment section is displayed in the original form as presented on the survey.

Survey Question: Are there any additional comments about how you teach phonological awareness in your classroom that you would like to add?

<table>
<thead>
<tr>
<th>Comment</th>
<th>Respondent #</th>
</tr>
</thead>
<tbody>
<tr>
<td>We use phonological awareness and phonics to teach writing which also builds reading skills. These activities are completed during tub time/morning message/singing and writing activities.</td>
<td>1</td>
</tr>
<tr>
<td>Phoneme substitution is really enjoyed when we use it with our names. (Begin everyone’s name with “P” instead of their initial sound.)</td>
<td>3</td>
</tr>
<tr>
<td>I do guided writing daily with my SK students and frequently with my JK students. This is the vehicle that I most often use for teaching phonological awareness. I find that when children learn to write using their phonological knowledge, then they’re more able to use phonological awareness to unlock words when reading.</td>
<td>4</td>
</tr>
<tr>
<td>More often than not, we use our group time at language (even if it’s 5 minutes) to touch on some from of P.A.</td>
<td>8</td>
</tr>
<tr>
<td>-using elastics&lt;br&gt;-with names, songs</td>
<td>9</td>
</tr>
<tr>
<td>-oral language is more important than phonological awareness</td>
<td>13</td>
</tr>
<tr>
<td>Phonological A. S. tends to be taught informally. Formal lessons are short in length.</td>
<td>18</td>
</tr>
<tr>
<td>Most activities are oral or game-related. There is very little written work.</td>
<td>20</td>
</tr>
<tr>
<td>In the case of teaching the skills &amp; how often, it does depend on the needs/skills of my current class. Generally I find P.A. very important for my children in general though sometimes C.A.P are right up there too!</td>
<td>21</td>
</tr>
<tr>
<td>The phonics taught is used to promote phonemic awareness basically for writing &amp; beginning purposes. (Often picture reading song story familiarizing occur as well as T. reads to develop vocabulary we call sight words. Children enjoy rhymes and rhythms in words and therefore develop awareness of blended sounds via this – word familiar are taught at, cat, bat, --r rhyme silly words are introduced to enable children to understand “sense” and nonsense words. Reading is about comprehension, point of view, reflection (feelings).)</td>
<td>23</td>
</tr>
</tbody>
</table>
Many answers depend on the kids you have that year, their capabilities and readiness.

- use daily message + writer's workshop for application + teaching of these phonological skills

…never found “Rosner” that helpful. The timing of the Rosner was before I had done enough P.A. in class to get good results from even very fluent readers. I know [now sic] do it more often & start right at the beginning of the year. It would be better done with the SKs not the JKS I think.

P.A. – daily in morning message – “lessons” are integrated into big books, etc. rather than stand alone therefore difficult to answer 21-30. Centers – usually a number of days focusing on one aspect then another. I have use [used sic] Pinnel (or is it Fountes or both) resource on P. A. & Phonics.

I teach it formally, but also like spontaneous situations and during conferencing in writer’s workshop.

Finding words within words  e.g. f a m e

I sue the phonological awareness book that WRDSB gave out to K teachers several years ago – I use many of those activities; I use Jolly Phonics to reinforce sound/letter explicitly.

Jolly Phonics is more incidental learning.

I use reading strategies to teach reading – comprehension is key tool – I really discourage sounding it out unless writing. Initial consonant does that look right is OK for reading but add did that make sense. Segmenting sounds and blending sounds mainly done with writing.

It is difficult to break down sounds until children can identify “sounds.”

P.A. – ability to rhyme great predictor of whether kids will struggle with reading.

*P.A. is crucial! Must Daily explicit & implicit instruction. *can’t have successful kdgn program without P.A. daily!

- I include it through transitions and class poems.
- I think that teaching phonics includes P.A. But, I may not be correct??
- Robot talk, guess my word, body tapping syllables (chunks) change my word cat – fat, do you hear my sound, sound spelling, elkonian boxes, magic eraser
- teaching segmenting sounds, etc. depends on time of year
- segmenting sounds, etc. activities are mostly oral

We are trying to add more oral language and more phonemic awareness to our program.
I hope to improve in my efforts. Would attend a workshop if offered.

- phonics and letter id. are my phonological awareness centers

I will often throw in impromptu PA activities when we are waiting in line or during transition times. PA Games often help slower kids move quicker as they want to be part of the game.

I do formal lessons that target specific areas, but A LOT of this (PA) is done through writer’s workshop and interactive writing. (children participating)

I tend to do a focused lesson 1-3x month and also do incidental phonological awareness every day.

This is a great survey that really makes you think about your own practice. Some parts are harder to answer as I still feeling as though I’m dealing with tears, bathroom accidents, and listening issues. I’ve tried to answer by where I expect to be once all routines are firmly established.

I don’t generally use phonological awareness centers. Centers do not drive my program, though I am becoming more comfortable with making/using them & them being meaningful.

We do these activities as music/themed songs/games.

I teach it more in writing than reading. Changes as the year progresses and needs of kids.

I am hesitant to say that phonological awareness is not necessary to teach/learn when learning how to read but I can say that some students do not need or use this awareness when reading or recognizing words. I believe resources such as Jolly Phonics should be taught in accordance with other applicable lessons not as a separate lesson. It has to be relevant for the students.

I would like to do more in small group situations.

I do teach PA incidentally as it comes up when we are doing shared reading.

Focus daily on one skill for several weeks and then on another skill e.g. for one week all centers may focus on rhyming words

As a result of staggered entry, teaching on alt. days and having a JK/SK blend, routines have taken a large portion of time to establish and the language program is only taking shape now.

I admit that this area of reading development has not been stressed, or taught to me as a teacher of young readers.

*typically done in small groups

Just so you know, I am in my 2 month in kindergarten in a very set program. I feel as
<table>
<thead>
<tr>
<th>I become more familiar with the program I will have a better grasp of how often we teach PA.</th>
<th>125</th>
</tr>
</thead>
<tbody>
<tr>
<td>While some is intentional/explicit, quite often PA is part of informal sharing when reading, etc. (kids recognize; I point out, etc)</td>
<td>128</td>
</tr>
<tr>
<td>Some questions were too black &amp; white. Each child learns to read differently, so generalizing doesn’t always make sense! – My higher developed students are exposed to different P.A. activities than my less developed students.</td>
<td>129</td>
</tr>
</tbody>
</table>
| *We have a very high ESL (75%) population. At this school, phonics programs are effective with these students.  
  Depends on the time of year. This occurs more often later in the year. | 135 |
| Use strong start program in our school. | 142 |
| I do specific lessons/prog. But also embed it within the context of daily activities i.e. writer’s workshop (how many syllables are in sidewalk) read aloud (rhymes)  
  Interactive writing … etc. so that it “appears” informal/spontaneous to children allowing for “constructivism” the (unknown word??) | 148 |
| Songs, games | 151 |
Appendix D: Survey Cover Letter

October 2009

Dear Kindergarten Educator:

I am making contact to ask for your brief participation in a research survey related to teachers’ perceptions of the significance and use of phonological awareness in the kindergarten classroom. The purpose of this research project is to explore the current perceptions and behaviors of kindergarten classroom teachers in relation to phonological awareness as part of the kindergarten reading program. The objective of the researcher is to attain a greater awareness of how research, pertaining to phonological awareness, is being reflected in classroom practices, in the kindergarten context. The study was approved by the IRB of Liberty University on May 30, 2009, IRB No. 710.

Enclosed in this package is a brief survey that asks a variety of questions about your perceptions and classroom instructional practices related to phonological awareness. Responding should take 5-7 minutes, and your participation is critical to the success of the study. Your participation in this survey will be valuable for a greater understanding of phonological usage in kindergarten classrooms.

You may be assured that your responses will remain completely confidential. Individual names are not required. Each respondent’s responses will be combined with the other responses to produce an overall descriptive profile of phonological awareness usage in the kindergarten context. The enclosed envelope has been coded with a letter and number to identify the schools which have participated. This information is required to establish the demographics of the participants. The envelopes will then be discarded.

Participation in this study is entirely voluntary, involving no risk. If you choose to participate in the study, please complete the survey and send it to me in the enclosed postage-paid envelope.

The benefits of participation include developing a greater understanding of the use of phonological awareness in our kindergarten classrooms -- a skill that supports reading development. If you have any questions or concerns about completing the survey or about participating in this study, you may contact Margaret Dahmer at (519) 743-8998, or Margaret_Dahmer@wrdsb.on.ca. If you have any questions regarding your rights as a research participant in this research, you may contact the Director of Liberty University Office for Research Protection at 434-592-4054.

Thank you. Your cooperation is greatly appreciated.

P.S. Enclosed is a package of stickers as a token of appreciation for participating in this survey.
Appendix E: List of Specific Reading Behaviors Associated with the Emergent Reading Phase

a. Enjoyment of listening to stories
b. Book concepts (i.e., varying formats such as chart stories, big books; author use)
c. Directionality of text (i.e., left to right and top to bottom)
d. Use of pictures and repeated phrases utilized as reading strategies
e. Comprehension of text (i.e., identifying main ideas, characters, events)
f. Knowledge of words in text (i.e., “word” concept; recognition of a few words)
g. Varying rates of progress in learning

Adapted from:

Appendix F: Liberty University Internal Review Board Approval

IRB Approval 710.050409: Phonological Awareness in the Kindergarten Classroom: How Do Teachers Perceive This Essential Link From Oral Communication to Reading Skill Development

Institution Review Board

Sent: Saturday, May 30, 2009 10:41 PM
To: Dahmer, Margaret Catharine; McDonald, Connie; Garzon, Fernando L.
Cc: Milacci, Ellen Elizabeth

Dear Margaret,

We are pleased to inform you that your above study has been approved by the Liberty IRB. This approval is extended to you for one year. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. Attached you'll find the forms for those cases.

Thank you for your cooperation with the IRB and we wish you well with your research project. We will be glad to send you a written memo from the Liberty IRB, as needed, upon request.

Sincerely,

Fernando Garzon, Psy.D.
IRB Chair, Liberty University
Center for Counseling and Family Studies Liberty University
1971 University Boulevard
Lynchburg, VA 24502-2269
(434) 592-4054
Fax: (434) 522-0477
Appendix G: Graphs Displaying Distributions Associated with Demographic Data

Distribution of Kindergarten Grades

Distribution of Kindergarten Programs
Distribution of Kindergarten Teacher Genders

Distribution of Years of Teaching Experience
Distribution of Years of Kindergarten Teaching

![Bar Chart showing the distribution of years of kindergarten teaching experience. The x-axis represents years of teaching experience, ranging from 0-5 years, 6-10 years, 11-20 years, to over 20 years. The y-axis represents frequency, ranging from 0 to 60. The chart indicates that most teachers have 0-5 years of teaching experience.](chart_image)