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Preschool Teachers' Understanding of Phonological Awareness

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Abstract

Research has documented that there is an inconsistency in terms of education requirements for preschool teachers across the nation. This inconsistency brings various levels of knowledge to the classroom, which has a direct impact on students' learning. Early literacy exposure is fundamental in the preschool years to prepare students with the necessary literacy skills to enter kindergarten and begin learning how to read. One significant early literacy skill that begins to develop between four and five years of age is phonological awareness. Phonological awareness is the understanding of sound sequences in language. This research explored preschool teachers' understanding of the meaning of phonological awareness and the activities implemented in the classroom to promote development of phonological awareness. An online, open-ended survey was used to gather data from preschool teachers. The data reported that the majority of the participants in the study implemented rhyme, syllable, and phoneme activities to promote development of phonological awareness. There were minimal activities reported focusing on the large unit of language, such as in phrases. The majority of the participants in this study defined phonological awareness as the sound structure of language, with phonemic awareness at the forefront. Phonemic awareness is an advanced concept of phonological awareness that tends to develop toward the end of the preschool years or in the beginning of the kindergarten years. Preschool teachers must be aware of the varying components of phonological awareness ranging from phrases to phonemes, while also consistently assessing their students to ensure that they are developmentally ready to begin learning about language at the phoneme level.

Keywords: phonological awareness, phonemic awareness, rhyme, syllable, emergent literacy, preschool.

Chapter One

Definition of the Problem

There is a wide range of differences in the settings and educational backgrounds of the teachers that encompass the early childhood field. Several different types of settings include: public schools, private schools, Head Start programs, home settings, and child care centers. In addition to the variation in terms of location, there is also a wide discrepancy in the education requirements and experience for teachers in these various early childhood programs. In some states teachers may enter the field without a high school diploma and with the minimal qualifications of passing a criminal report and child abuse registry check (Ackerman, 2003). In California preschool teachers must acquire at least twelve college credit units in Early Childhood Education (ECE) or Child Development (CD) course work to act as a lead teacher in a preschool classroom (permit matrix 9-09 CL, 2007). Although, there are school districts in California where credentialed K-12 teachers are being employed to work in preschool classrooms. This is problematic, as many of these credentialed teachers do not have any early childhood education coursework or background knowledge on the specific developmental needs of four and five year olds. Based on this information, one can only wonder what type of education preschool teachers hold, and whether or not they are prepared to teach early reading skills. The educational system has become progressively more uniform and rigorous and early childhood educators are being called upon to support the developmental skills that were previously the responsibility of elementary school teachers (Cunningham, Zibulsky, & Callahan, 2009).

Literacy in Preschool

Literacy development in the preschool classroom may include formal and informal story time, activities that teach letter sounds and letter recognition, emergent writing, fine motor

exercises, rhyming, syllable games, and name recognition. Songs, chants, puppet play, vocabulary building, and multiple opportunities for oral language development in social interactions with adults and other students may also be observed as literacy development. These emergent literacy skills lay the foundation for learning to read before entering kindergarten (Cunningham et al., 2009). According to the California Preschool Curriculum Frameworks and Learning Foundations these types of activities foster an interest in literacy and are developmentally appropriate for preschool children (Abbot, Lundin, & Ong, 2008). The California Preschool Learning Foundations and Curriculum Frameworks were developed through the California Department of Education by researchers from multiple universities, preschool directors, board members and preschool teachers across the United States.

Purpose of the Research

Due to the limited amount of teacher education required to teach preschool, early education specialist question whether preschool teachers are prepared and educated in the literacy development of preschool children. As researchers Early and Winton (2001) found there are many early childhood programs across the nation that mostly offer an Associates degree or less than an Associates degree, and less than half offer a Bachelors degree in early childhood education (Early & Winton, 2001). Early and Winton (2001) also found that these teacher preparation programs consisted of curriculum spanning the development from infancy to the age of eight years old. This is a very large spectrum of developmental stages, supporting the notion that there may be a need to investigate the knowledge base of early childhood educators.

There appears to be confusion among early childhood professionals over the difference of phonological awareness and phonics. This is something that I have observed while working in classrooms with other preschool teachers. This has also been documented as a concern by

researchers Cockburn, Diamond, O'Leary, and Powell (2010). While conducting group interviews they discovered preschool teachers stated that letter and letter sound association activities and instruction were taught to develop phonological awareness. Letter and letter sound association demonstrates the development of phonics. These are two distinct skills as phonological awareness precedes the development of phonics. Carroll, Snowling, Stevenson & Hulme (2003) found that children tend to develop syllable and rime awareness before phoneme awareness. The sounds of language are first perceived from birth and followed by songs, rhymes, and stories as one continues to grow (Cunningham et al., 2009). Exposure to the sound structure of language is necessary as the various activities to develop phonological awareness skills are imperative in learning phonics. Several studies have shown that the ability to identify and name letters and the ability to recognize the sequence of sounds in a word are extremely important in literacy acquisition, and children who enter school with these skills have an advantage to future reading and writing progress (Guimaraes & Youngman, 1995).

Studies of the associations between and among teacher knowledge, teacher practice, and student success are lacking in the early childhood community (Cunningham et al., 2009). Based upon the existing research and evolution of literacy needs at the preschool level, the purpose of this study is to explore two research questions: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom? The participants in this study include preschool teachers with a range of educational backgrounds from various early childhood settings in the San Diego County area. The participants were asked to complete an open-ended survey, where the results were analyzed to answer the two research questions.

Preview of the Literature

Three themes documented in the literature review include: the importance of phonological awareness, preschool teachers understanding concerning the meaning of phonological awareness, and the impact of professional development on teachers focusing on phonological awareness. “Preschool teachers have the potential to make an invaluable contribution to the literacy development of children” (Cunningham et al., 2009, p. 487). The development of this early reading skill is dependent on the amount and type of support provided by the teacher. Early intervention in phonological awareness may decrease reading difficulties, improve early reading skills, and increase the number of children reading at grade level (Emad & Yasser, 2010).

There is a limited amount of research conducted on a teacher’s perceptions of phonological awareness in the early childhood field, yet quite a bit of research can be found at the kindergarten and first grade level. Much research focuses on kindergarten as the beginning stage of reading development and examining kindergarten teachers beliefs and understandings. In actuality the beginning stage of reading development takes place during the preschool years. “Teachers must recognize how the development of phonological awareness and the alphabetic principle are at the very foundation of beginning reading” (Cunningham et al., 2009). Based on this statement and the information that phonological awareness is beginning to develop in children around four years of age, it is critical that preschool teachers have appropriate education and are providing activities to stimulate and develop these skills.

Due to the range of educational requirements for preschool teachers, it seems vital that professional development occur in the early childhood field. Professional development coaching is one of the most effective forms of professional development as teachers are given the

opportunity to reflect, self-evaluate, and engage in learning in their own environment. According to the National Staff Development Council (2001), it is recommended that professional development be continuous, collaborative, take place over time, occur in the classroom setting and is linked to curriculum and student outcomes (Hsieh et al., 2009).

Significance of the Research

The majority of previous research on phonological awareness has been focused on kindergarten teachers or kindergarten students (e.g. Emad & Yasser, 2010; Hawken, Johnston, & McDonnel, 2005; and Bos, Mather, Dickson, Podhajski, & Chard, 2001). Therefore this current study is necessary in bringing attention to early childhood educators on how preschool teachers define phonological awareness and the various activities used to promote development of phonological awareness. Bringing attention to the understanding of phonological awareness may lead to the development of proper teaching methods and correct definitions of the term. As a result of this study preschoolers will hopefully attain development of phonological awareness and be readily prepared to enter kindergarten, equipped with the foundations for learning how to read. The findings may lead to higher expectations for early childhood educators. Professional development with literacy as the focus for preschool teachers may also bring advancement to the field. Conveying to society the importance of preschool and the effects that preschool has on children's literacy development is a significant goal. A society that respects preschool and preschool teachers as a crucial component to education is imperative for our future.

Summary

The goal of this research is to investigate preschool teachers understanding of the meaning of phonological awareness and the activities used in the classroom to encourage and promote development of phonological awareness in children at the preschool level. The

collection of open-ended surveys is used in this study to gain knowledge and provide insight into this early literacy skill. Phonological awareness is a pre-reading skill that begins to develop around four years of age. With proper exposure to this important skill children may enter kindergarten with the ability to understand that words are made up of sounds, therefore facilitating the beginning reading process.

All in all, it is essential that teachers in the early childhood field are prepared for and educated in the ability to implement developmentally appropriate literacy curriculum for future reading success. There is documented evidence that children who learn phonological awareness become better readers than children who do not (O'Connor, 1999). Investigating how preschool teachers define phonological awareness will give us insight into how phonological awareness is conveyed in the preschool classroom. Cunningham, Zibulsky, and Callahan, (2009) recorded that reading success throughout elementary and middle school is significantly associated with emergent language and literacy skills that develop in the early years. Existing research and literature on preschool teachers knowledge of phonological awareness and teaching techniques used in the preschool classroom will be further discussed in chapter two.

Terms

Phonological awareness-ability to recognize that language is made up of a variety of sound units

Phonemic awareness-an understanding of the way that sounds function in a word

Phonics-understanding that sounds and print letters are connected

Phoneme-smallest unit of sound in a word

Morpheme-smallest unit of meanings in a word

Onset-the part of the word before the vowel

Rime-the part of the word that includes the vowel and what follows it.

Chapter Two

Literature Review

There is limited research on the knowledge base of early childhood educators in the preschool classroom on the topic of phonological awareness. Inconsistencies have been noted in regards to the education level requirements for preschool teachers across the nation. There is also a wide range of preschool environments and various dynamics from home childcare programs to preschool programs located on elementary school campuses. Teachers who have been properly trained to teach phonological awareness tend to be more successful at conveying this awareness to their students (Emad & Yasser, 2010). Preparing our students for reading readiness begins with teacher preparation. The California Preschool Learning Foundations reports that the development of phonological awareness in preschool students greatly depends on the knowledge and support provided by the teacher (Abbot et al., 2008).

Centered on the importance of phonological awareness in beginning reading skills, there is a need to ensure that preschool teachers are prepared and implementing phonological awareness activities in the classroom. This chapter discusses the current research on phonological awareness in early childhood settings. While researching how preschool teachers define phonological awareness, three major themes were discovered. The three themes are discussed in detail in three sections. The first section of this literature review discusses the importance of phonological awareness. The second section discusses teachers' understanding on the meaning of phonological awareness. The final section discusses the impact of professional development on teachers when focusing on phonological awareness.

Importance of Phonological Awareness

Exposure to and instruction in phonological awareness in the preschool years can better prepare children to enter kindergarten with the necessary skills to begin reading. Phonological awareness is the ability to hear and detect sounds in language. California Preschool Learning Foundations documents that phonological awareness begins to develop between four and five years of age, and is a developmental progression from a sensitivity to large units of sounds, words and phrases, to small units of sounds, syllables and phonemes (Abbot et al., 2008). “Phonological awareness plays a direct role in several components in reading, such as understanding the alphabetic principle, decoding printed words, and spelling, as well as, an indirect but important role in reading comprehension through its direct role in facilitating decoding” (Abbot et al., 2008, p. 54).

“Children who possess phonological awareness can think about the sounds in spoken words, which may assist them to remember sound-to-symbol correspondences as they learn about letters of the alphabet” (O’Connor, 1999, p. 203). Phonological awareness activities can include rhyming, syllable segmentation, and word play that involve manipulating the sounds in words by deleting, adding, or substituting phonemes. “Phonological skills do not require any knowledge of print, rather, phonological awareness is reflected in the kind of sound play that young children who become good readers enjoy in preschool and kindergarten” (O’Connor, 1999, p. 203).

Early intervention in phonological awareness may decrease reading difficulties, improve early reading skills, and increase the number of children reading at grade level (Emad & Yasser, 2010). Exposure to phonological awareness, as well as concepts of print, letter name knowledge and letter sounds, and vocabulary development are important beginning reading concepts for

young preschoolers. “Phonological awareness and vocabulary knowledge are among the key early childhood precursors of later reading competence” (O’Leary, Cockburn, Powell, & Diamond, 2010, p.). The combination of these skills is imperative and should be integrated in every early childhood program.

Several studies have shown that the ability to identify and name letters and the ability to recognize the sequence of sounds in a word are extremely important in literacy acquisition. Children who enter school with these skills have an advantage in future reading and writing progress (Guimaraes & Youngman, 1995). Understanding the concept that letters make up sounds and that the sounds go together to make up words is just one of the beginning skills of early reading. In correlation to these two concepts, hearing and making sense of sounds and patterns of words, known as phonological awareness, is also critical in beginning to learn how to read. Reading difficulties are most often the result of a weakness in phonological processing skills (Lonigan et al., 2009).

Carroll et al. (2003) investigated the nature, predictors, and progression of phonological awareness in three and four-year-olds in a longitudinal study. The study investigated three major areas of phonological awareness development including the progression of syllable, then onset and rime, and then phoneme development in that particular order. Assessments in this study were given verbally to each individual child using a two choice format containing pictures over three separate meetings. The assessments included letter knowledge, vocabulary, phonological awareness, mispronunciation detection, articulation, and phoneme awareness matching tasks. Carroll et al. (2003) found that children tend to develop syllable and rime awareness before phoneme awareness and showed little sign of any difference in levels of performance between syllable and rime awareness tasks. The researchers had expected to find that letter knowledge

would be an important predictor in phoneme awareness and felt that they failed to demonstrate this, as the research did not provide evidence. Through this research, phonological awareness concepts such as syllable and rime awareness appears to come before phoneme awareness. This demonstrates the importance of phonological awareness to beginning reading skills, as both rime and syllable awareness are included in the concept of phonological awareness.

Phonological awareness emerges rapidly in the years immediately prior to elementary school (Webb, Schwanenflugel, & Kim, 2004). Therefore, exposure to phonological awareness in preschool better prepares children for school as they begin to build an understanding that language contains words and letters that are made up of sounds. With this understanding and background knowledge, children enter kindergarten equipped to make connections in both reading and spelling instruction. Children who have exposure to large amounts of phonological awareness activities tend to have significant and independent long-term influence on the development of phoneme awareness (Carroll et al., 2003). Not only does phonological awareness benefit literacy development, but also mathematical understanding may come easier with a background of phonological awareness. According to Prebler, Krajewski, and Hasselhorn (2012), a well functioning phonological working memory may support the acquisition of verbal arithmetical aspects like number facts in early childhood. Phonological awareness is vital in the preschool years as it better prepares children entering kindergarten with the skills to begin reading and writing through understanding the sound structure of words. It is equally important that we review the present research regarding preschool teachers' knowledge and teaching techniques focusing on the development of phonological awareness.

Teachers' Understanding on the Meaning of Phonological Awareness

There is much concern whether preschool teachers have knowledge in regards to the meaning of phonological awareness and the expertise to teach phonological awareness. The varying degrees of education that preschool teachers possess is a critical element to consider when examining preschool teachers' knowledge of early literacy skills. National, state, and local administrators, politicians, and publishers have increasingly become aware of teacher certification guidelines and the importance of teaching phonological awareness and phonics for early reading readiness (Bos, Mather, Dickson, Podhajski, & Chard, 2001). The credential requirements to teach in a preschool in the United States can range from holding a state teaching credential to achieving a high school diploma. This specialty of education exhibits low salaries, lack of benefits, and few rewards for pursuing higher education (Early & Winton, 2001).

Researchers Crim and colleagues (2008) discovered that preschool teachers are better prepared to teach syllabication identification versus phoneme and morpheme identification. This information was collected through a survey given to preschool teachers in the Houston, Texas area. The data showed that the participating preschool teachers had difficulties in counting syllables in shorter words, but were more successful with longer words. Dialect differences could have been a factor in incorrect answers to syllabication.

More than half the teachers in the Crim et al. study left the sections on the survey blank in regards to the number of morphemes in specific words, which counted as wrong answers. Morpheme is the smallest meaningful unit of a word; for example, in the word cats there are two morphemes: cat + s. The number of phonemes section of the survey also showed to be difficult for the teachers. Phoneme refers to the smallest unit in a word; for example, there are four phonemes in the word cats: c + a + t + s. The findings of this study show a major concern that

early childhood educators may not adequately be prepared to teach young children how to identify syllables, morphemes, and phonemes (Crim et al., 2008). The data may also show it is a possibility that the preschool teachers who left the sections on phonemes and morphemes blank may not know the meaning of these concepts. The understanding of syllable identification, morpheme and phoneme identification, and rhyme are major areas of phonological awareness that are critical to the preschool years.

In another study, researchers discovered that teachers were implementing activities to encourage phonological awareness. However, in the research, they did not investigate the teachers' knowledge on the meaning of phonological awareness. Hawken et al. (2005) documented that preschool teachers were implementing phoneme exercises that involved practicing and identify initial sounds in words. During attendance the teachers substituted a different letter sound of each first and last name. For example, the teacher would say, "Bammy Barch" for a student with the name Sammy March. This is example of an activity that aids in the development of phonological awareness. In this same study, the strategies that were least frequently used for development of phonological awareness were identifying syllables and blending sounds together to form words. This shows that the preschool teachers practiced and implemented some phonological awareness skills, yet there was not any data collected on the teachers' knowledge of what phonological awareness actually means.

Preschool teachers are inclined to share the common understanding that reading and verbal communication is critical for a literate environment. Guimaraes and Youngman (1995) found that the teachers viewed the most important skills in reading and writing development to be verbal, perceptual, and manual skills and the least important skills to be understanding how written language is organized and displayed, learning the names of the letters, and phonological

awareness. All these skills combined, including phonological awareness and letter knowledge, are significant in early literacy environments to better prepare students for reading.

It has been documented that teachers are confused about the differences between phonological awareness and phonics (Bos et al., 2001). Phonics is the ability to associate letters with sounds, where phonological awareness is the ability to detect sounds in ones language. This confusion can cause an inconsistency in the literacy curriculum and student assessments in the preschool classroom.

Bos et al. (2001) conducted a study on the perceptions and knowledge of inservice and preservice teachers in regards to early reading skills. The inservice teachers were completing their certification in the student teaching program, and the remaining participants were teaching school age students from kindergarten to third grade. The teachers completed two surveys, Teacher Knowledge Assessment and Teacher Perception Survey. The Teacher Knowledge Assessment consisted of a 20-question-multiple-choice assessment, used to measure the structure of word language based on phonological awareness and phonics (Bos et al., 2001). The Teacher Perception Survey was an early reading and spelling survey focused on phonics skills and whole language (Bos et al., 2001). The results found that the preservice teachers scored an average of 10.6 items correct out of 20 items on The Teacher Knowledge Assessment; whereas, the inservice teachers scored an average of 12 out of 20 items correct (Bos et al., 2001). The Teacher Perception Survey discovered that both preservice and inservice teachers expressed that K-2 teachers should know how to teach phonics, and poor phonemic awareness contributes to early reading failure (Bos et al., 2001). The teachers documented the importance of teaching these literacy skills, but they themselves did not demonstrate the knowledge of these skills. Based on the results from this study and the Crim et al. study, there appears to be a commonality between

the lack of knowledge of phonological awareness in both school age teachers and preschool teachers.

Recently, it has been found that kindergarten teachers who are trained and prepared to teach phonological awareness produce higher literacy outcomes in their students (Majsterek, Shorr, & Erion, 2000). Yet, Bus and Van Ijzendoorn (1999) found that preschoolers tend to profit from phonological awareness training more so than school age children. School age children may have already mastered certain phonological skills and preschoolers are at the very beginning stage of literacy development. This information shows a need to further explore both kindergarten and preschool teachers' knowledge and ability to teach beginning reading concepts. With the high demands of reading readiness, it is critical that children are provided with early intervention and with as many tools as possible to achieve these goals. It is even more critical that the teachers who are preparing these young minds to be knowledgeable and prepared. Studies found that teachers have not been educated in phonology and orthography; therefore, they are not prepared to teach children how to read (Emad & Yasser, 2010).

The studies and research presented by Crim et al., Guimaraes and Youngman, and Bos et al. document that preschool teachers, as well as school age teachers, are not exhibiting appropriate knowledge in phonological awareness, phoneme awareness, morpheme awareness, and phonics. How can we expect children leaving preschool and entering kindergarten to be prepared if educators are lacking in proficiency? It is imperative that teachers in the early childhood setting are well educated, are providing instruction, and that they understand the meaning and the importance of implementation of phonological awareness in literacy development.

Impact of Professional Development

Teachers in the early childhood field enter the classroom to teach with varying amounts of education and experience. Some of these teachers are entering the field with little skills and knowledge in emergent literacy, while also receiving their first exposure to emergent literacy in classroom practice and through professional development (Hsieh et al., 2009). According to the National Staff Development Council (2001), it is recommended that professional development take place over time, be collaborative, occur in the classroom setting, and be linked to both curriculum and student outcomes (Hsieh et al., 2009).

Hsieh, Hemmeter, McCollum, and Otrrosky (2009) set up research to investigate whether in class coaching for five preschool teachers would demonstrate three things: First, does the coaching would have an impact on targeted emergent literacy teaching strategies? Second, are the teachers' perceptions of the coaching process beneficial to the students' learning? Third, did emergent literacy knowledge of the students increase from the beginning of the coaching sessions to the end of the coaching sessions? The coaching sessions included a cyclic process for each literacy cluster of collaborative planning between coach and teacher, observation of practice in action, reflective feedback, and collaborative planning for the next coaching visit. A checklist was used and developed for the purpose of collecting data and scored based on the strategies as they occurred or did not occur during the observations. The results for the teachers' use of literacy strategies increased in all three clusters.

To determine the results for the teachers' perception on coaching and effects of student success, a Likert Questionnaire was mailed out to each of the teachers. The results reported that the teachers found the training to be useful for themselves and their students. The students were assessed to determine if the teachers strategies used were effective in their learning using two

different assessment tools. The results showed there was evidence of change in the emergent literacy skills of the children from the short amount of coaching that took place (Hsieh et al., 2009). It is noted that future research should include unplanned observations, as planned observations could have been a limitation to the study. This study shows that coaching has a positive influence on both the teachers' skills and students' education.

According to Powell, Steed, and Diamond (2010), the primary goal of literacy coaching is to help teachers implement evidence based practices that contribute to improvements in literacy education. The same coaching process and positive outcome is seen in the Powell et al. (2010) study as was seen in the Hsieh et al. (2009) study. The literacy coach's job was to observe, assess, and plan constructively with the teacher. The expectation is that the teachers reflect and make improvement plans based on the observations and assessments and then implement the plan in the following coaching sessions. This technique was exhibited in both coaching studies. "Professional development interventions that focus on phonological awareness may be more beneficial than professional development interventions that focus on a broad range of literacy skills" (Powell, Steed, & Diamond, 2010, p. 159). Based on this statement, there may be a need to begin an early childhood coaching program centered on phonological awareness.

Creating programs and assessment tools for teachers to assess their own knowledge can improve teachers' knowledge and implementation strategies, which can better prepare students. According to Cunningham et al. (2009), teachers who were aware that they were lacking knowledge in one of the literacy domains were likely be more attentive to professional development in regards to the needed topic. "Preschool teachers have a tremendous opportunity to promote children's literacy development and it is imperative that the teacher education field reflect upon and reassess standards of professional development to ensure that preschool teachers

are able to capitalize on that opportunity” (Webb, 2004, p. 489). As more preschool teachers become aware of the specific early literacy skills and implementation of activities, focusing particularly on the needs of the students, the number of children entering kindergarten may be better prepared to begin learning how to read.

Professional development in the form of coaching that includes self-evaluation, awareness, reflection, and implementation appears to have an effective outcome. Examining the studies conducted by Hsieh et al., Powell et al., and Cunningham et al., it appears that coaching is an applicable approach in preparing and ensuring that preschool teachers are including phonological awareness in the curriculum. These studies exhibit similar characteristics in the coaching techniques and indicate positive outcomes in classroom teaching strategies, as well as an improvement in students' academic success.

Summary

Exposure to the sounds in one's language through play with words, syllables, and rhymes are just a few of the beginning concepts in literacy development, known as phonological awareness. Experience and exposure to these skills stimulate beginning reading readiness. As preschool students are exposed and become familiar with the skills in phonological awareness, the better prepared they are to enter kindergarten and face the high demands presented to them in learning how to read. Preschool teachers are the critical link to ensure that this is taking place in the classroom. Based on the research, it appears that there is a need to further investigate phonological awareness instruction in the preschool classrooms.

Researchers suggest that with preparation, educators can increase their knowledge and provide systematic instruction in reading development (Bos et al., 2001). There has been great success in literacy interventions through professional development coaching methods. The

associations between teacher knowledge, teacher practice, and student success studies is lacking in the early childhood community (Cunningham et al., 2009). "To study teacher's beliefs is important, as decisions at the classroom level are determined by them" (Guimaraes & Youngman, 1995, p. 42). In order to ensure our students are prepared we must first examine the educators.

Phonological awareness is a beginning skill in reading development and should be presented in the preschool environment to prepare children to enter kindergarten. "Helping preschool teachers develop phonological awareness skills may be the most logical starting place for a professional development intervention" (Cunningham et al., 2009). A detailed description of the necessary methodology used in the current study will be outlined in chapter three to answer the research questions: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom?

Chapter Three

Methodology

Since research suggests that phonological awareness begins to develop around four years of age (Abbot et al., 2008), preschool teachers are critical link in ensuring that students are exposed to this important early literacy skill. The purpose of this research was to gain insight into preschool teachers' understanding of the meaning of phonological awareness and the types of activities they use in the classroom to support phonological awareness development. To achieve this purpose, this study explores two specific questions: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom? As documented in chapter two, phonological awareness is an important pre-literacy skill that begins to develop with exposure during the preschool years. There is limited research in the early childhood classroom on the topic of phonological awareness. This chapter discusses the research design, defines the participants and setting, the data to be collected, the instrument and procedures, and the analysis procedures of this study.

Research Design

A qualitative methodology was necessary to answer the research questions of this study, as qualitative research tends to focus on the quality of a particular activity, rather than how often it occurs or how it might be evaluated (Mertler & Charles, 2011). This was the most important inquiry approach for this study as the emphasis was on gathering teachers' terminology used to define a concept and the activities used within the classrooms, drawing on a survey method. Survey questions can be written in either a closed-ended or open-ended format although surveys more commonly use a closed-ended format such as in multiple choice or checklist.

For the purpose of answering this study's research questions, open-ended questions were determined to be most appropriate. "Open-ended questions allow for more individualized responses, because the respondents are not limited to selecting from a supplied set of options" (Mertler & Charles, 2011, p. 235). This format allowed for the participants to think about the questions and then answer accordingly using language of their choice. A descriptive survey approach was selected as the research questions were designed to find out what preschool teachers current knowledge of phonological awareness was and to gain knowledge of the types of activities used in the classroom to develop this skill. A descriptive survey is defined by Mertler and Charles (2011), "as a one shot survey for the purpose of simply describing the characteristics of a sample at one point in time" (p. 232).

Participants and Setting

Participants included thirteen preschool teachers ranging from second year teachers to those having over twenty years experience in the preschool classroom. A majority of the participants worked in state funded preschools in various settings across the San Diego County area, including four within school district preschools, three in Montessori non-profit preschools, and three in non-profit preschools. Three of the participants worked in a private preschool, funded both through government funding and family fees. "California requires most childcare centers and family child care homes, to be licensed by the California Department of Social Services under Title 22 of the California Code of Regulations" (Child Care Law Center Inc, 2014). State funded preschools are required to be licensed under Title 22 regulations, but they must also follow regulations under Title 5 of the California Code of Regulations. Title 5 has different characteristics than Title 22, such as more stringent child eligibility requirements, staff qualifications, and child to teacher ratios (Child Care Law Center Inc, 2014).

All but one of the preschools where the participants worked follows the Title 5, state preschool regulations. The private preschool follows Title 22 regulations. Varying philosophies and program structure are represented in the different preschools. The preschools that are apart of the school district offer half day, three hour programs and are located on elementary school campuses. The Montessori preschools offer both half day, three hour programs, as well as full day preschool, where classrooms are located in childcare centers. The non-profit preschools offer both half day and full day programs. The private preschool is a traditional childcare center that accommodates infants, toddlers, and preschool children that offer both half day and full day programs.

The teachers in these various settings hold different preschool education backgrounds. Some of the teachers that worked for the school district hold California elementary teaching credentials, although only one of the teachers holding this type of credential participated in the study. All of the other teachers participating in the study hold various levels of California preschool teacher permits including: assistant teacher permit, associate teacher permit, teacher permit, master teacher permit, site supervisor permit, and program director permit. With these permits the teachers range in educational levels from acquiring twelve credit hours of early childhood education from community colleges and/or the teachers have acquired associate degrees, bachelors degrees, and masters degrees. There are a multitude of characteristics represented by the teachers, classrooms, and early childhood programs represented in this study.

The selection of participants would be known as the judgmental sampling, also known as purposive sampling. Judgmental sampling is the process of selecting certain segments of the population for study and is most common in qualitative research (Mertler & Charles, 2011). This is different from other sampling because the researcher uses his/her own judgment to select

segments to be included in the study, compared to other types of sampling that can be more generalized (Mertler & Charles, 2011). Judgmental sampling was appropriate for this research. It was important that teachers from different philosophies, various levels of education, and years of teaching were represented. These varying characteristics were ideal as the preschool teachers who were answering the questions represented various backgrounds. For the purpose of this study a small sample of thirteen can be considered adequate as the research was designed to gain an understanding of how a small group of preschool teachers comprehend a particular concept in detail; its goal was not to generalize to the larger population.

Instrument and Procedure

The survey consisted of questions that addressed demographics, content knowledge, and pedagogical behaviors. In order to respond to the research questions, four questions were developed for this open-ended survey:

1. What type of teacher permit, teaching credential and/or college degree do you currently hold?
2. How many years have you taught in a preschool classroom?
3. How would you define phonological awareness?
4. What types of activities do you use to promote the development of phonological awareness in the preschool classroom? Please give 2-3 sentence description of each activity.

Demographic questions gather personal characteristics (Mertler & Charles, 2011). The two demographic questions were asked to gather educational background and years of experience:

- What type of teacher permit, teaching credential and/or college degree do you currently hold?
- How many years have you taught in a preschool classroom?

As research has discussed there is a wide range of educational backgrounds that preschool teachers exhibit across the United States. These two questions were written to determine if there is consistency in the various levels of educational background and years of experience of the participants in this study, as compared to what previous research has stated.

Knowledge questions gather information about a particular subject (Mertler & Charles, 2011). The one knowledge question was written to gather preschool teachers understanding of phonological awareness:

- How would you define phonological awareness?

This question was developed to explicitly answer the research question: How do preschool teachers define phonological awareness? Research has indicated that teachers may not fully understand what phonological awareness is and may even think that phonological awareness and phonics are the same concept making this question an important focus to my research.

Behavioral questions gather information on the actual types of behaviors from individuals or groups (Mertler & Charles, 2011). The behavioral question was asked to investigate activities and/or lessons used to encourage development of phonological awareness in the preschool classroom:

- What types of activities and/or lessons do you use to promote the development of phonological awareness? Please give 2-3 sentence description of each activity.

Finally the last question was written to answer the research question: What types of activities/lessons are used to promote development of phonological awareness in the preschool

classroom? The purpose of this question can also answer the third research question: How would you define phonological awareness? As the activities and lessons can provide evidence on the understanding of the concept based on the activities and lessons documented by the participant.

These open-ended questions were developed to gain an insight into preschool teachers' understanding and use of phonological awareness skills. Open-ended were chosen over closed-ended questions to encourage participants to use their own terminology to define phonological awareness, which provided a more thorough picture of their individual levels of understanding. In addition, the open-ended questions provided participants the freedom to record the various strategies and lessons used to promote the development of phonological awareness in the preschool classroom.

Prior to distributing the survey, the researcher administered a pilot test of the survey instrument to three selected participants that were not participating in the study. These three individuals agreed to complete the trial survey because they too were interested in the research topic. The pilot test consisted of the same four questions that were developed for the survey. The methods for survey delivery and data analysis were replicated as they were planned to be implemented for the full study, with some features for additional feedback. The purpose of the pilot test was to make appropriate adjustments to the questions on the survey based on the participants' feedback, such as rephrasing of the questions.

A Word document was emailed to the three individuals in the pilot study. The email included a message asking that they complete the four question survey and then to reply back stating how much time it took them to complete the survey and to provide feedback on whether any of the questions were confusing or unclear. All three participants provided that it took them

anywhere between five to eight minutes to complete the survey. Each of the participants that took part in the pilot test documented that the questions were well defined and easy to follow.

Two of the participants in the pilot test wrote similar definitions. They stated that phonological awareness was an awareness of sounds in words, such as rhymes and syllables. The activities that these two participants listed that they used in the classroom to promote phonological awareness included: songs, chants, rhymes, and syllable clapping of names. The definitions and activities demonstrated that these teachers had a basic understanding of the term. The third participant stated that phonological awareness was the awareness of spoken word and also included the sounds of the letters in the alphabet. The activities listed were similar to the first two participants, including rhyming and song activities. Although, this same participant stated two different activities: First, the teacher asks the students to locate objects that start with a specific letter sound of the alphabet. Second, the teacher documented playing ABC bingo as an activity used to promote the development of phonological awareness. These two activities were not followed by a description, therefore one cannot be sure of the objective of the activities. These types of activities in the preschool classroom tend to follow a letter sound to letter knowledge association, which would be a phonics building activity. In conclusion, the findings from the pilot test represented the possibility of what information the actual survey study might elicit. Two of the teachers demonstrated an understanding of the concept through both the definitions and the activities and lessons taught in the classroom. The third participant demonstrated possible inconsistencies of understanding between the definition and the activities and lessons taught to promote phonological awareness.

After receiving the feedback of the pilot test and no changes were suggested, the survey was developed using Survey Monkey (Survey Monkey Inc, 2014). A consent form was written

and distributed, affirming the research questions, the benefits to the research, the process of what is to be expected from the participants, and the personal right to not be apart of the research.

Once all signatures were gathered the link to the survey was emailed using Survey Monkey to each of the fifteen participants, along with a letter of introduction in the body of the email. The letter of introduction outlined the purpose of the survey, identified the guidelines to follow when answering the questions, stated that it would be anonymous that it was voluntary, stated the date to submit, and finally offered a thank you for participating. The guidelines stated that the participants would need to have access to a computer for about fifteen minutes.

Most importantly, the participants were asked not to reference any sort of resource such as books, the Internet, handouts, other people, etc. The reason for this guideline was explained to ensure that the data comes from the participant's knowledge and not from any other resource, the purpose being to maintain credibility in terms of the study. Participants were asked to submit the surveys no later than June 6th, 2014. Due to having received eight of the fifteen surveys on June 6th, the researcher extended the due date to June 10th in hopes of receiving all fifteen surveys. By the final due date, a total of thirteen surveys were returned from the fifteen distributed.

There tends to be a low return rate when it comes to online surveys, and this could be considered a negative (Mertler & Charles, 2011). Another disadvantage is that the teachers were asked to not make reference to any resource, but there is no way to be certain this instruction was followed. Access to a computer was required in order to complete the survey. This can also be seen as a negative in using online surveys, considering it is a possibility that not all of the participants have access to a computer at school or home. Three concerns: low return rates, inability to know whether participants are following what was asked of them, and access to a computer can be seen as limitations to this study. Online surveys also have a positive side as

teachers can complete the survey at their own time. The participants remain anonymous; therefore, they can be completely honest in their answers. Finally, the collection of surveys can be quick and efficient through the online method.

Data Analysis

Inductive analysis was used to organize and code similar findings, identify and cluster these findings into categories, describe the characteristics of each cluster, and finally to interpret the data between all surveys. Mertler & Charles (2011) refer to this as a three-step process for conducting analysis: organization, description, and interpretation. “The analysis of qualitative data is an inductive analysis, that begins with specific data, notes any patterns in those data, formulates one or more tentative “hypotheses,” and finally develops general conclusions and theories” (Mertler & Charles, 2011, p. 200).

Surveys were read upon receipt and then read multiple more times looking for similarities in the data. Before beginning the coding process chapter two of this thesis was read, looking for terms that stood out as critical elements necessary in analyzing the data. This approach is known as a priori coding. A priori coding is the act of naming codes before analysis of the data begins (Stemler, 2001). This coding process is important for this research because the topic of study is very specific. The codes that were identified prior to the analysis allowed the researcher to consider specific terms that might be represented in the data. The codes that were determined after reading chapter two: syllabication (S), rhyming (R), sound play (SP), onset & rime (OR), alphabet knowledge (AK), morpheme exercise (ME), phoneme exercise (PE), listening exercise (LE), sound to written symbol (SWS), and sound to symbol correspondence (SSC). These codes were deemed appropriate for the study, as they are all components of early literacy and were

frequently mentioned in chapter two which is a representation of past research on phonological awareness in the preschool classroom.

After the ten codes were established the data was read and codes were assigned to each of the participants' responses to the survey questions. The following two questions that were coded based on the participants' responses were: How would you define phonological awareness? and What types of activities and/or lessons do you use to promote the development of phonological awareness? Once the responses were coded each code was then tallied to determine which codes occurred the most. The codes that occurred most frequently were sound to symbol correspondence (SSC), syllabication (S), and rhyming (R). The remaining codes that occurred less frequently were: onset & rime (OR), alphabetic knowledge (AK), morpheme exercise (ME), sound to written symbol (SWS), and listening exercise (LE). After reviewing this information the codes were analyzed, while looking for patterns and were then grouped into the following categories: phonological awareness, phonemic awareness, and phonics.

Once these patterns were established, the responses were then coded again using the codes: LA (phonological awareness), CA (phonemic awareness), and P (phonics). The information was then clustered into the three categories by creating Word documents, and the responses were moved under each of the categories that were best fitting. After coding the data using these three categories the codes were tallied to determine which of the three occurred most often. This information was analyzed and then examined to determine if there were any connections and/or contradictions of the data directly focused on the research questions. Finally, the coded information was analyzed to answer the research questions: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom?

Summary

This study collected open-ended surveys to gain an understanding of how preschool teachers define phonological awareness. The survey was distributed to fifteen preschool teachers using Survey Monkey, but only thirteen surveys were returned. All teachers worked in preschools in the San Diego County area. Responses to the surveys were first organized into codes. The codes were analyzed to determine common pattern, these patterns were assigned codes, and the information was then coded again using the three coded categories. The data was examined to gain insight on how preschool teachers define phonological awareness through the terminology used and the types of activities implemented in preschool classrooms to promote development of phonological awareness. The following chapter will provide detailed information on the data collected from the surveys.

Chapter Four

Data Analysis and Findings

The purpose of this study was to learn more about preschool teachers understanding of the meaning of phonological awareness. This qualitative study used an online, open-ended survey format to gather data used to analyze and answer the research questions: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom? The method of a priori coding was applied to the analysis process. This process of coding was most appropriate to determine codes prior to the coding analysis because of the very focused nature of the research topic. While reading chapter two, the literature review, ten codes were named according to the terms that consistently appeared. The ten codes that were established were used to code the participants' responses to the survey. These codes were analyzed looking for specific patterns; then three categories were developed based upon the patterns exhibited. The data was coded again using the three categories.

Chapter four discusses the findings of the responses from the online survey. The findings from each of the questions on the survey will be described in detail. Beginning with the participants' type of teaching permit, education level, and years of experience. Followed by an analysis of the participants' definition of phonological awareness and an analysis of the activities that the participants documented using in the classrooms to promote the development of phonological awareness, using the first ten assigned codes. In conclusion, a description of the process of determining patterns, developing categories, and the final coding process is discussed, along with an analysis of the findings used to

answer the research questions: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom?

Education and Background Findings

There is a wide range of educational backgrounds that preschool teachers hold across childcare centers. As previously mentioned, the requirements to teach preschool range from having achieved minimal early childhood education college credits to holding a state teaching credential. The findings from the survey displayed a span of participants who held an Assistant Teacher permit to participants' who had a Multiple Teaching Credential. The first question on the survey was: What type of teaching permit, teaching credential, and/or college degree do you currently hold? Figure 1 provides a visual representation of the participants' teaching permits or credentials; the percentages have been rounded to the nearest whole number.

Figure 1. Teaching Permits or Teaching Credentials Held by Participants

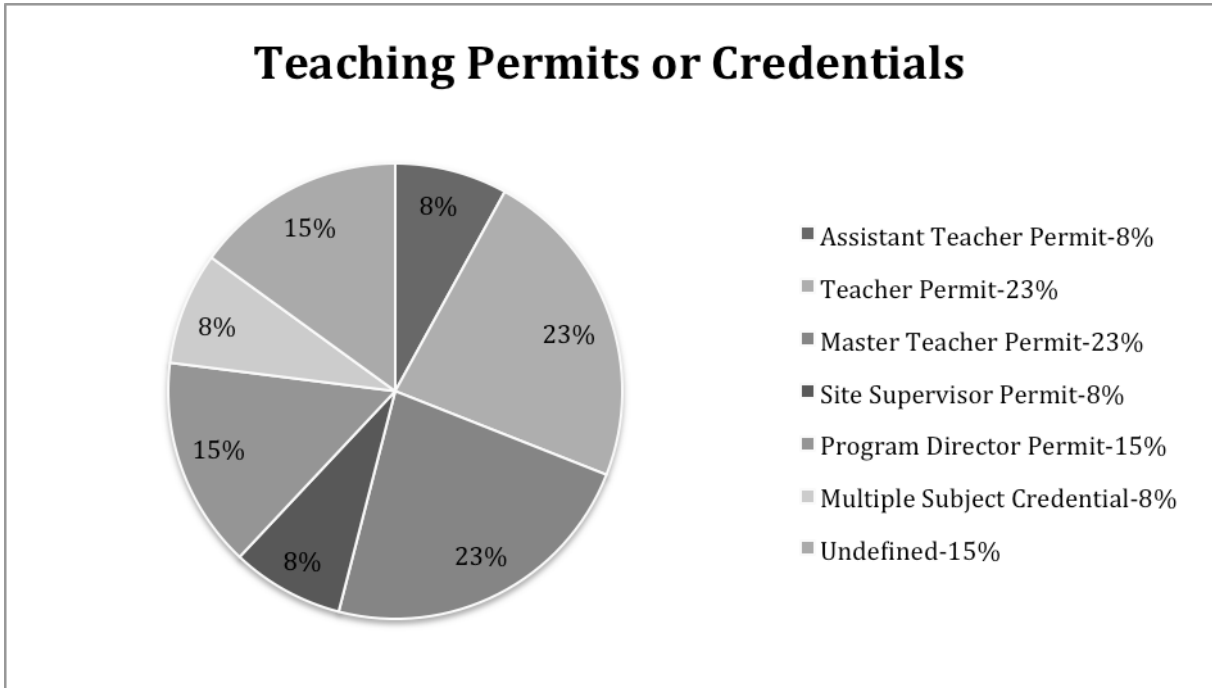


Figure 1 displays that the majority of the preschool teachers who participated in the study held either a Teacher permit or a Master Teacher permit. According to the Child Development Permit Matrix, the requirements to receive a Teacher permit may include one of two options: Option 1, “24 units in ECE/CD including core courses, plus 16 general education units” or Option 2, “AA or higher in ECE/CD or related field, with 3 units supervised field experience in ECE/CD setting” (permit matrix 9-09 CL, 2007). Option 1 also includes an experience requirement of, “175 days of 3 or more hours per day within 4 years” (permit matrix 9-09 CL, 2007). It is uncertain as to how many of these teachers were included in Option 1 or Option 2. Only one of the teachers who held a Teacher permit specified having a Bachelor’s degree on the survey. There is quite a difference between the Teacher permit and the Master Teacher permit in regards to education level achieved. The Master Teacher permit also follows a two option format:

Option 1, “24 units ECE/CD including core classes, plus 16 general education units, 6 specialization units, 2 adult supervision units” this option also incorporates the experience requirement, “350 days of 3 or more hours per day within 4 years” (permit matrix 9-09 CL, 2007). Option 2, “BA or higher (does not have to be in ECE/CD) with 12 units of ECE/CD, plus 3 units supervised field experience in ECE/CD setting” (permit matrix 9-09 CL, 2007). As stated in the permit descriptions, the difference in education level is different from an AA degree in ECE/CD to a BA degree in any field with 12 units of ECE/CD. Two out of the three participants who held Master Teacher permits, listed having achieved Bachelor’s Degrees. One of the participants was specific in specifying that the focus of the Bachelor’s Degree was in Early Childhood Education, whereas the other participant did not specify the type of Bachelor’s Degree.

The undefined category in Figure 1 represents two participants who stated holding a permit that is not defined by the Child Development Permit Matrix. One of the participants stated that they held an, “ECD Permit” and the other participant stated that they held a “preschool children’s center permit.” Considering neither one of these permit titles are apart of the Child Development Permit Matrix, the exact title is undetermined. The participant who documented holding an “ECD Permit” also listed that they had achieved an Associate’s Degree.

There were a total of two participants who documented as holding Program Director permits. This is the highest permit level on the Child Development Matrix. There are four options for this permit including: Option 1, “BA or higher (does not have to be in ECE/CD) including 24 ECE/CD units with core courses, plus 6 administration units, plus 2 adult supervision units, along with the experience requirement of having Site

Supervisor status and one program year of Site Supervisor experience” (permit matrix 9-09 CL, 2007). The remaining three options do not have an experience requirement and are written as: Option 2, “Amin credential with 12 units ECE/CD, plus 3 units supervised field experience in ECE/CD setting” or Option 3, “Teaching credential with 12 units of ECE/CD, plus 3 units supervised field experience in ECE/CD setting, plus 6 units administration” or Option 4, “Master’s Degree in ECE/CD or Child/Human Development” (permit matrix 9-09 CL, 2007). Only one of the participants, who recorded having a Program Director permit, listed their level of education as a Master’s Degree. The other participant who listed Program Director permit did not provide any education information.

The final three groups represented in Figure 1 included one participant from each of the three groups: Assistant Teacher permit, Site Supervisor permit, and Multiple Subject Teaching Credential. There is inconsistency in the data, as one teacher who participated in the survey held an Associate Teacher permit, but they documented in the survey that it was an Assistant Teacher permit. The reason this can be determined is because this was the only participant who was asked to participate in the study who did not have a Teacher permit or higher. This information is important because an Assistant Teacher permit is different than an Associate Teacher permit, in that a teacher who holds an Assistant Teacher permit cannot act as a lead teacher in a preschool classroom. According to the Child Development Permit Matrix the two options for an Associate Teacher permit: Option 1, “12 units of ECE/CD, including core courses” along with an experience requirement, “50 days of 3 or more hours per day within 2 years” and Option 2, “Child Development Associate Credential” (permit matrix 9-09 CL, 2007). However,

the Assistant Teacher permit is optional and is not required to work in a childcare setting. In order to qualify for the Assistant Teacher permit, six units of ECE/CD are required with no experience necessary. All of the teachers who were asked to participate in the survey research had to have had permits that were teacher permits or higher, other than one teacher who acted as a lead teacher who had an Associate Teacher permit. The reason for this was to maintain the consistency that all teachers who participated in the study were lead teachers of the preschool classroom.

One of the participants documented holding a Site Supervisor permit, according to the Child Development Permit Matrix this permit includes meeting the requirements of one of four options: Option 1, "AA (or 60 units) which includes 24 ECE/CD units with core courses, plus 6 units administration units, plus 2 adult supervision units, along with an experience requirement of 350 days of 3 or more hours per day within 4 years including at least 100 days of supervising adults" (permit matrix 9-09 CL, 2007). The three remaining options do not have an experience requirement and are listed as: Option 2, "BA or higher (does not have to be ECE/CD) with 12 units of ECE/CD, plus 3 units supervised field experience in ECE/CD setting" or Option 3, "Admin credential with 12 units of ECE/CD, plus 3 units supervised field experience in ECE/CD" or Option 4, "Teaching credential with 12 units of ECE/CD, plus 3 units supervised field experience in ECE/CD setting" (permit matrix 9-09 CL, 2007). This participant specified that he/she had achieved a Bachelor's Degree in Child Development. One of the participants held a Multiple Subject Credential along with a Bachelor's Degree in English Literature. This participant did not provide any additional information on ECE/CD units; therefore it is

unknown as to whether this teacher had any background knowledge or education in ECE/CD.

Overall the majority of the participants in this study held Teacher permits (23%) or Master Teacher permits (23%). Followed by participants who held Program Director permits (15%) and permits that were undefined (15%). Concluding with one participant who held an Associate Teacher permit, but documented it as an Assistant Teacher permit (8%), one participant who held a Site Supervisor Permit (8%), and one participant who held a Multiple Subject Credential (8%).

The second part of the first question on the survey asked participants to document college degree that they currently held. Out of the thirteen participants, six (46%) did not document any type of education; they only documented the type of teaching permit that they currently held. It is uncertain as to whether these six teachers did not answer this part of the question or that they did not have a college degree. The remaining seven teachers did document having a college degree. Five (38%) of the participants held a BA degree, one (8%) of the participants held an AA degree, and one (8%) held a MA degree.

The second question on the survey asked: How many years have you taught in the preschool classroom? This question was important in terms of understanding where the teachers were coming from with experience in the preschool classroom. As previously discussed the early childhood field has much turnover due to low wages along with minimal amounts of education requirements. Figure 2 provides a visual representation of the participants' years of preschool teaching experience.

Figure 2. Years of Teaching Experience in the Preschool Classroom

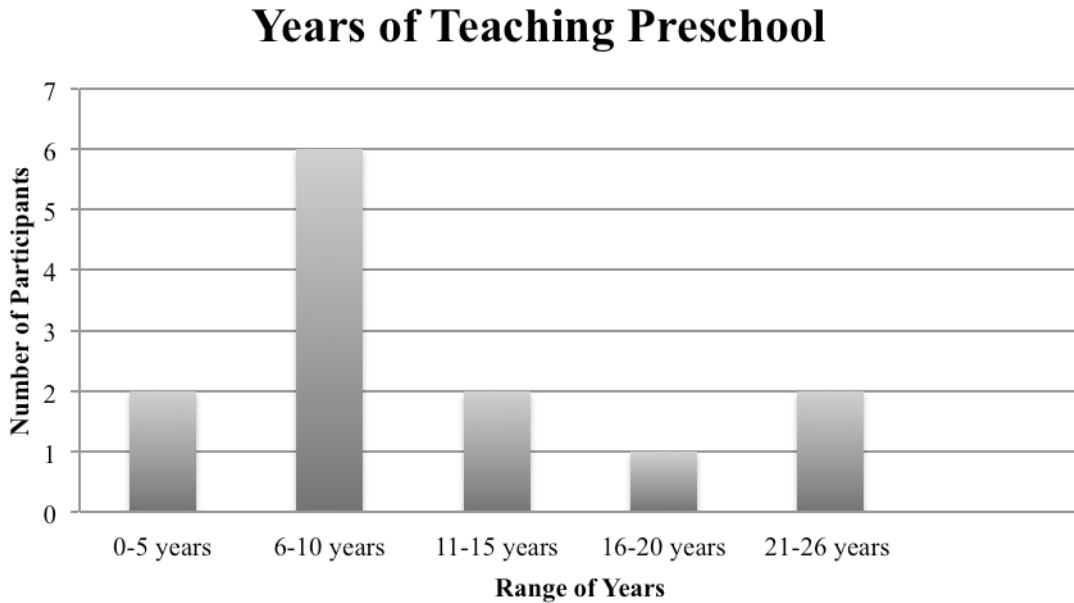


Figure 2 illustrates that the majority of the participants in this study have taught anywhere between six and ten years in the preschool classroom. There is the same number of participants who have worked in the preschool setting ranging between 0-5 years, 11-15 years, and 21-26 years while only one participant has taught 16-20 years in the preschool classroom.

Years of experience and permits held did not indicate any type of pattern in the data. Of the participants that held Program Director permits, only one of teachers had ten years and the other teacher had over twenty-six years. This is a positive to the early childhood field, as it is the highest level one can achieve on the Child Development Permit Matrix, and the two teachers had at least ten years or more experience teaching in the classroom. The teacher with the Site Supervisor permit had nine years experience. Participants with the Master Teacher permit ranged in years of preschool teaching experience from seven, ten, and seventeen years. Participants holding a Teacher permit

ranged from seven, twelve, and fifteen years of experience. The teachers who fell into the undefined group for permit identification had documented nine years and the other teacher documented twenty-four years. The teacher who held an Associate Teacher permit but documented the permit as an Assistant Teacher permit had five years experience. Finally, the teacher with the Multiple Subject Credential had the least amount of years of experience of all the participants in the study, equaling a total of two years in the preschool classroom.

This data presents a wide range of educational backgrounds in terms of teacher permits, college degrees, and years of experience. The information gathered from the participants in this study was consistent with previous research, in that there are various levels of expertise of the preschool teachers working in the field. The remainder of this chapter will discuss the findings of the second component of the survey that asked participants to define phonological awareness and provide a list of activities used in the classroom to promote development of phonological awareness.

Analysis and Findings of the Coded Definitions

The analysis process began by reading chapter two, the literature review, to determine frequently used terms. These terms were then assigned as codes for the coding process. Selecting these codes prior to analysis is known as, a priori coding. This was necessary as there was a specific focus to the study to determine what preschool teachers understood about phonological awareness. These prior defined terms were appropriate for this study as they were relevant to the topic and most likely to appear in the participants' definitions and activities listed.

The codes that were determined while reading chapter two: syllabication (S), rhyming (R), sound to symbol correspondence (SSC), sound to written symbol (SWS), sound play (SP), onset & rime (OR), alphabetic knowledge (AK), morpheme exercise (ME), phoneme exercise (PE), and listening exercise (LE). The responses to both survey questions were read and then coded on paper with the above codes. Some responses were coded with several codes, while other responses had only one code. After coding the data, the codes were tallied to determine how many times each code appeared. The data was first analyzed by looking at the two question responses separately, and then the data from both responses from the two questions were analyzed together looking for patterns in the data.

There were a total of five out of the ten codes that occurred from the responses to the first survey question: How would you define phonological awareness? The five codes that occurred were: syllabication (S), rhyming (R), sound play (SP), sound to symbol correspondence (SSC), and phoneme exercise (PE). Out of these five codes, the most prevalent code was sound to symbol correspondence (SSC). Table 1 shows the total number of times tallied and the percentages rounded to the nearest whole number as they appeared in the coding process.

Table 1. Coded Responses from Defining Phonological Awareness

Codes	Total Number Tallied	Percentages
Syllabication (S)	3	17%
Rhyming (R)	1	6%
Sound Play (SP)	2	12%
Sound to Symbol Correspondence (SSC)	10	59%
Phoneme Exercise (PE)	1	6%

As seen in Table 1 sound to symbol correspondence (SSC) was documented 59% of the time. There is a vast difference between the amounts of times the sound to symbol correspondence (SSC) code occurred, compared to the remaining four codes.

A finding from examining the codes was that every time the syllabication (S) code appeared so did the sound to symbol correspondence (SSC) code. In other words, syllabication (S) did not appear on its own or with any other grouping of codes. Three definitions from three different participants where syllabication (S) and sound to symbol correspondence (SSC) appeared together are as followed: “The breaking up of syllables and sounds that letters and words make. It is how each of those letter sounds come together to make words.” The second definition, “I would define phonological awareness as a student’s understanding of how words are made up of sounds and syllables.” The last of the three definitions where the two codes were assigned was, “Sounds of words and syllables.” Each one of these definitions notes a combination of the terms syllable and the understanding of how words or letters are made up of sounds.

The only other combination where sound to symbol correspondence (SSC) emerged alongside of another code, was with the phoneme exercise (PE) code. Phoneme exercise (PE) code only appeared once in this response data of defining phonological awareness. This coded definition of sound to symbol correspondence (SSC) and phoneme exercise (PE) was written as, “Letter and Sound recognition, blending sounds together to make sounds and words. Also, children hearing and using verbal language with adults and their peers.” This definition combines the ideas of connecting sound to symbols, but also uses the terminology of letter and sound association, taking it to a phoneme level, which is why it was coded as a phoneme exercise.

The rhyming (R) code appeared only one time and it was in combination with the sound play (SP) code. The sound play (SP) code appeared one other time, the second time it appeared it stood alone. The participant's definition where rhyming (R) and sound play (SP) codes were coded was stated as, "The ability to process and repeat sounds, to organize rhyme, repetition, and sounds in an arrangement. To hear the intonation of sounds versus the specific sound a letter makes." This definition demonstrates the idea of playing with sounds and rhymes in ones language, through repetition, this definition does not require one to connect any sound to symbol which is why this definition was coded as sound play (SP) and rhyming (R).

The most frequent occurring code in the first question response included sound to symbol correspondence (SSC). It is possible to consider that the participants in this study mostly agreed that phonological awareness includes sound to symbol correspondence in ones language. This means that the participants may also believe phonological awareness is the understanding that language corresponds to sounds. This idea will be further discussed as the analysis continues.

Analysis and Findings of the Coded Activities

The coded responses presented differences in the appearance of codes from the survey question that asked participants to provide a definition, compared to the next survey question that asked participants to provide a list of activities implemented in the classroom. All ten of the codes were present in the analysis of the responses from the survey question: What types of activities and/or lessons do you use to promote the development of phonological awareness?

Syllabication (S) was the most frequently occurring code, followed by the rhyming (R) code. Table 2 illustrates the codes tallied and the percentages rounded to the nearest whole number that occurred in the second set of responses about activities and lessons implemented in the classroom.

Table 2. Coded Responses of Activities Implemented in the Preschool Classroom

Codes	Total Number Tallied	Percentages
Syllabication (S)	7	20%
Rhyming (R)	6	17%
Sound Play (SP)	3	9%
Sound to Symbol Correspondence (SSC)	4	11%
Sound to Written Symbol (SWS)	2	6%
Onset & Rime (OR)	3	9%
Alphabetic Knowledge (AK)	2	6%
Morpheme Exercise (ME)	4	11%
Phoneme Exercise (PE)	2	6%
Listening Exercise (LE)	2	6%

As presented in Table 2 the most frequent codes were syllabication (S) and rhyming (R). Syllabication occurred 20% of the time and Rhyming occurred 17% of the time. The next highest percentage that appeared was sound to symbol correspondence (SSC) and morpheme exercise (ME) at 11%.

A finding from analyzing the patterns of coding was that syllabication (S) and rhyming (R) emerged several times together in the same responses. For example, the following response from a participant is documented, where the response was coded with syllabication (S) and rhyming (R) but was also coded with onset & rime (OR) and listening exercise (LE).

Literacy rhymes, clapping names and sounds, listening boxes and activities, matching sounds with boxes and different sounds in each 2 alike, listening walks, rhyming puppets shows, breaking words apart and changing beginning and end sounds, blending sounds, playing alliteration games, clapping and snapping and stomping to a rhythm.

This response aligned with the syllabication (S) code as the participant stated implementing activities of clapping names and following rhythms. Rhyming (R) activities were listed as literacy rhymes and puppet shows. The onset & rime (OR) activities included breaking words apart by beginning and ending sounds and playing alliteration games. Listening exercise (LE) activities were noted as matching sound boxes, as well as in clapping, snapping, and stomping to rhythm. Syllabication (S) and rhyming (R) were documented together a total of four times out of the thirteen responses that were coded.

Another finding when comparing the occurrence of syllabication (S) codes with the other codes was that when the listening exercise (LE) code appeared so did the syllabication (S) code. Such as in the response below, which also had a sound to symbol correspondence (SSC) code attached.

Brown bag sounds: put various objects into a bag and have the children tell me what they hear. A physical alphabet...pairing the sound of letters with actions (clapping, stomping, feeling the air come from their mouth as the promo use a letter (P)... Identifying syllables with clapping and jumping.

This response recorded activities that reflected listening exercise (LE) activities as the teacher documented putting objects in bags and then guessing what was inside, based on

what one had heard. The syllabication (S) activities demonstrated clapping and jumping the amount of syllables. The activity that aligned with sound to symbol correspondence (SSC) involved pairing the sounds of letters to a particular action or movement.

Additional findings were that the morpheme exercise (ME) code appeared often when the rhyming (R) and syllabication (S) codes were also present. Out of the four times that the morpheme exercise (ME) code appeared, three of those times it was in combination with the rhyming (R) and syllabication (S) codes. A participant's response where this combination of all three codes were seen together: "We sing the "Name, Name" song and clap the syllables of their names. We read rhyming books and match rhyming words. We also have matching compound words [*sic*] puzzle game." The activity in this response described morpheme exercise (ME) as the activity incorporated compound word puzzles. The syllabication (S) activity consisted of clapping name syllables, and the rhyming (R) activities were documented as reading rhyming books and matching rhyming words.

The one time where morpheme exercise (ME) did not appear alongside of rhyming (R) and syllabication (S) codes, it was in combination with alphabet knowledge (AK), phoneme exercise (PE), and sound to symbol correspondence (SSC). The participant's response where all four codes were present is recorded below.

I use several types of activities. I make small riddles where I describe something to the kids like an animal and say, "It lives in the jungle, it has stripes and it has two sounds—ti and ger. What is the animal. [*sic*] I also work with compound words like butter and fly and see if the children can guess the words butterfly. I also have the children in my class practice their letter sounds like "Who let the

letters out?" I also talk a lot about books when I am reading to them. I make sure that they know where the words are on the page and where the pictures are.

In the above response the activity that represented a morpheme exercise (ME) is the compound word lesson using the word butterfly. The phoneme exercise (PE) and alphabet knowledge (AK) activity consisted of the song, "Who Let the Letters Out?" The sound to symbol correspondence (SSC) activity involved the riddle, where two sounds of a word were said and the children were to guess the word. The final sentence about words and pictures in the book is actually a concept of print activity. This activity was not coded because none of the codes were appropriate.

The two remaining codes that have not been discussed in detail are sound to written symbol (SWS) and sound play (SP). Sound play (SP) was found coded a total of three times, twice in the activities response section and one time in the definition response section. Sound to written symbol (SWS) was coded a total of two times, both times were present only with the activities response question. A participant's response to the activities question where both sound to written symbol (SWS) and sound play (SP) were coded along with the syllabication (S) code can be found quoted below.

In the classroom we use songs that promote play on words. We clap out the syllables in our names. When children are interacting with letter magnets we will work together to make words and sound out each letter. During circle time I have letter stories that incorporate the sounds each letter makes.

In this response the sound play (S) code was given because the teacher expressed the use of songs that promoted playing with words. The purpose for the assigned syllabication (S) code was because the teacher recorded clapping out the syllables in students' names.

The sound to written symbol (SWS) code was given due to the fact that the teacher made connections between the letter magnets and the sound that the letter made. The activity with the letter stories that incorporated the sound associations could also be classified as sound to written symbol (SWS).

Syllabication (S) and rhyming (R) codes were documented as the most frequent codes collected from the responses to the survey question about activities used to promote phonological awareness. These two codes did not represent a very large numerical difference between the other remaining eight codes. The participants in this study recorded that syllabication (S) and rhyming (R) were the most common type of activities implemented in the classroom to promote phonological awareness. The next section will discuss the findings and coding analysis of both the survey responses together on defining phonological awareness and activities listed to promote phonological awareness.

Analysis and Findings of Coded Definitions and Activities Combined

The two survey question responses were combined to analyze the codes. This information was analyzed to begin considering an overall representation on how preschool teachers define phonological awareness based on the terminology and on the activities and lessons documented that were used in the preschool classroom. The process of the first round of coding and analyzing the data was to determine patterns to continue with the coding process. Table 3 illustrates the number of times each code appeared overall, along with the overall percentages rounded to the nearest whole number.

Table 3. Combined Survey Question Coded Responses

Codes	Total Number Talled	Percentages
Syllabication (S)	10	19%
Rhyming (R)	7	13%
Sound Play (SP)	5	9%
Sound to Symbol Correspondence (SSC)	14	27%
Sound to Written Symbol (SWS)	2	4%
Onset & Rime (OR)	3	6%
Alphabetic Knowledge (AK)	2	4%
Morpheme Exercise (ME)	4	8%
Phoneme Exercise (PE)	3	6%
Listening Exercise (LE)	2	4%

The information presented in Table 3 shows that sound to symbol correspondence (SSC), syllabication (S), and rhyming (R) were the most occurring codes in the first round of coding. This is an overall percentage of coding both questions of how one defines phonological awareness as well the types of activities used to promote development of phonological awareness. Sound to symbol correspondence (SSC) was the most frequently appearing code of all three, showing up 27% of the time. Followed by syllabication (S), appearing 17% of the time. Sound to symbol correspondence (SSC) refers to the understanding or identification between sounds and symbols as an auditory process; where symbols are being defined as words, sounds, or anything else that language produces. Here are two quotations from the survey of two participants' responses in defining phonological awareness that were coded as sound to symbol correspondence (SSC): "the understanding that words are created by combining different sounds" and " putting sounds together to make mutual sense to/for both the utter (sender)

and receiver.” Both of these definitions show a similarity in the terminology used in regards to sounds, words, and language.

There was one definition response that was not coded. The reason for not coding was that it did not encompass any of the characterizations of the coded terminology. The participants quotation defining phonological awareness that was not coded is as followed:

“Children are ready, willing, and able-let’s get the [*sic*] started and still keep the curriculum playful and child-centered.” Considering this definition was not coded this response is not apart of the data analysis. Although, the same participant’s response in regards to activities provided in the classroom was coded as sound to symbol correspondence (SSC). The response was, “I really enjoy using zoo phonics, and the children are engaged. This way, children will learn the letters and sounds that unlock the doors to print. At the same time, they will explore all other subjects, through age-appropriate activities and experiences!” This shows that the participant understands that letters and sounds may be connected to the concept of phonological awareness, but did not provide any terminology in the definition section that shows the same understanding.

Sound to symbol correspondence (SSC) was frequently found in the data analysis of how phonological awareness was defined by the participants, but not as frequent in the documented responses to the activities and lessons section. The second most recurrent code included syllabication (S). An interesting finding was that syllabication (S) was the most appearing code, 20% of the time in the analysis of coding the survey question on activities used to promote phonological awareness, see Table 2. But, when coding both survey responses, syllabication (S) appeared 19% percent of the time. Also in the same finding rhyming (R) was displayed 17% of the time when coding the activities responses,

it was the second most frequent code, see Table 2. However, when coding both survey responses together rhyming appeared, 13% percent of the time. This shows that the participants' were more likely to note syllabication (S) and rhyming (R) for the activities question and sound to symbol correspondence (SSC) for the definition question.

Both the sound play (SP) code and phoneme exercise (PE) code appeared in the definition responses and the activities responses. This is important to consider, as the other five codes: onset & rime (OR), morpheme exercise (ME), listening exercise (LE), sound to written symbol (SWS), and alphabet knowledge (AK) appeared only in the activities response question. These five codes have much lower percentages in the overall coded analysis; this does not mean they are discredited. These codes were present in the coding analysis, showing that the participants were including these concepts in activities implemented in the classroom.

The next step of analyzing the data involved looking for patterns in the codes and in the responses. The patterns were examined and categories were established. The following section will discuss the patterns discovered and further analysis to answer the following research questions: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom?

Analysis and Findings of the Patterns and Categories

Upon completion of coding the data using the ten codes, these codes and responses were analyzed looking for patterns. The most frequent occurring codes from the first coding process were sound to symbol correspondence (SSC), syllabication (S), and rhyming (R). These three codes along with the sound play (SP), onset & rime (OR),

morpheme exercise (ME), and listening exercise (LE) codes demonstrated a pattern represented in the concept of phonological awareness. The second pattern found in the study was that the phoneme exercise (PE) code was located in both the definition and activities survey responses, making phonemic awareness the second category. The remaining codes that were present but were not as frequent included sound to written symbol (SWS) and alphabet knowledge (AK) codes, these represented a pattern found in the concept of phonics. The patterns that were discovered in this first set of coding were phonological awareness, phonemic awareness, and phonics. These three categories were determined as the data presented responses that were related to sound to word correspondence, sound to letter correspondence, and sound to written letter correspondence. These are specific explanations of how they are aligned with the three categories: phonological awareness, phonemic awareness, and phonics.

After determining the patterns, the data were then coded again using paper and pencil, similar to the first coding process. Crossing out the previous codes and replacing with the three new coded categories. The new coded categories were: phonological awareness (LA), phonemic awareness (CA), and phonics (P). After completing the paper and pencil coding, three Word documents were created one for each of the three categories. The responses were read again, then the responses were cut and pasted under the best fitting category. The coded paper and Word documents were compared to see that the codes were assigned consistently. The codes matched from the paper to the Word documents, showing a dependable coding process. Once all responses were categorized under one of the three categories, the responses were color coordinated by the particular question response. The responses were highlighted as yellow for the first question: How

would you define phonological awareness? The responses were highlighted as blue for the second question: What types of activities and/or lessons do you use to promote the development of phonological awareness? Please give a 2-3 sentence description of activities listed? This highlighting process provided a visual separation to the responses from the two questions.

When looking at the data separately by survey response questions, the findings showed that the most frequently displayed code was phonological awareness (LA) for the survey question: How would you define phonological awareness? With eleven phonological awareness (LA) codes, three phonemic awareness (CA) codes, and zero phonics (P) codes. This demonstrates that the majority of participants understood that phonological awareness could be a sound to word correspondence. The findings showed that the most frequently displayed code was also phonological awareness (LA) for the survey question: What types of activities and/or lessons do you use to promote the development of phonological awareness? There were a total of twelve phonological awareness (LA) codes, six phonemic awareness (CA) codes, and only two phonics (P) codes. This demonstrates that the majority of the participants were possibly implementing phonological awareness activities, as well as phonemic awareness activities in the preschool curriculum.

Both survey question responses were then analyzed together examining the codes and the responses to answer the research questions: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom? The codes were tallied and analyzed to determine which of the three codes occurred most frequently.

Table 4 shows a visual representation of the total codes tallied and the percentages rounded to the nearest whole number.

Table 4. Three Categories Coded and Documented

Codes	Total Number Tallied	Percentages
Phonological Awareness (LA)	23	68%
Phonemic Awareness (CA)	9	26%
Phonics (P)	2	6%

As Table 4 represents, 68% of the time the phonological awareness (LA) code was present, followed by phonemic awareness (CA) at 26%, and finally 6% of the phonics (P) code.

A finding in the data analysis was that the responses that were coded with a phonics (P) code were also coded with both a phonological awareness (LA) code and a phonemic awareness (CA) code. There were a total of two responses coded with all three codes. This excerpt provides an example of one of the two responses where all three codes occurred.

I like the game alphabet soup and reading rhyming books. Alphabet soup is a song you sing as you are stirring a bowl of letters together you then scoop a letter up and talk about the sound it makes and what it looks like. I also clap out the syllables in there [*sic*] names and then ask who's name begins with this sound? The kids seem to take well to it and they pick it up relatively quickly when you make it about them.

The reason it was coded with a phonics (P) code was because there was a sound to written letter correspondence; a letter was scooped out of the bowl and then a discussion took place about what the letter looked like and what sound that same letter made. The

phonological awareness (LA) code was given because there was a sound to word correspondence occurring, as they clapped syllables and listened to rhyming books. The phonemic awareness (CA) code was assigned because there was a sound to letter correspondence activity taking place; the activity included selecting beginning letter sounds of names that were then associated with a particular letter of the alphabet.

Another finding was that there were a total of five of the thirteen responses that were coded as both phonological awareness (LA) and phonemic awareness (CA). An example from both a definition response and an example from the activities response will be provided, starting with the definition response. "Letter & Sound recognition, blending sounds together to make sounds and words. Also, children hearing and using verbal language with adults and their peers." This definition of phonological awareness was coded with a phonemic awareness (CA) code because of the terminology, "letter and sound recognition." The phonological awareness (LA) code was recorded on this definition because of the statement, "blending sounds together to make sounds and words, and children hearing and using verbal language."

This following quotation is documented from the survey from the activities response question where both phonological awareness (LA) and phonemic awareness (CA) were present. "I use Zoo Phonics which is a program focused on letter and sound recognition. Also, matching letters and sounds. Working on beginning and ending sounds and stretching out words. Also, activities on what differentiating between letter and words." The phonemic awareness (CA) code was assigned because the participant stated using a program that focused on letter and sound recognition. The phonological

awareness (LA) code was given because the activities explored beginning and ending sounds in words, stretching out words, and differentiating between letters and words.

Based on the above findings, the data presents that the participants who took part in the study have defined phonological awareness as an awareness of sounds in ones language. These participants were implementing mostly syllable, rhyming and sound play activities that promote development of phonological awareness. Some participants were also implementing morpheme activities, such as compound word play, which is a component of phonological awareness. Onset & rime and listening exercises were documented as being implemented in the classroom; these two concepts are also encompassed under phonological awareness.

Phonemic awareness was recorded several times in participants' definitions and in description of activities. Phonemic awareness is the association between sounds at the individual phoneme level, which is at the very highest developmental peak of phonological awareness. Although these two concepts are not one in the same, they are similar in nature. Playing games that involved matching letters to the corresponding letter sounds was an activity that appeared quite a few times. This shows that the participants may understand that phonemic awareness and phonological awareness are the same concept.

Past research has documented that teachers are confused and may think that phonics and phonological awareness are the same concept. This is not consistent with the data analysis from this study. This study documented that very few, a total of only 6% of the participants' responses defined and or listed activities that were a representation of phonics; therefore noting difference between this current study and past research.

Summary

The survey responses were coded, analyzed, categorized by patterns and then analyzed again to gain an understanding of how preschool teachers understand the concept of phonological awareness. The data was consistent from the first round of coding to the final round of coding in that the teachers documented understanding that phonological awareness is recognizing sound units in language and that some activities should involve syllabication, rhyming, listening exercises, and sound play. Chapter five will discuss the findings further in terms of how this information and previous research compare, what this information means to the early childhood field, implications, limitations, and future research possibilities.

Chapter Five

Thesis Recommendations

Phonological awareness is an early literacy skill that begins to develop around four years of age, making preschool teachers a very important factor to ensure that phonological awareness activities are planned and carried out in the classroom to provide children with pre-reading skills. These pre-reading skills will better prepare children as they enter kindergarten and begin learning how to read. The purpose of this qualitative study was to gain insight into how preschool teachers define phonological awareness and to identify types of activities that are being implemented to encourage development of phonological awareness. One of the reasons this research is so important is because there has been a limited amount of studies that have been focused on early literacy learning knowledge of early childhood educators (Cunningham, 2009).

The participants' responses from this study were collected using an open-ended survey. The responses were gathered and then coded using previously selected codes. The codes were analyzed to determine patterns in the data. These patterns were used to minimize the data, pushing forth another round of coding to occur. The findings from the data were analyzed to help answer the research questions of this study: 1) How do preschool teachers define phonological awareness? and 2) What types of activities/lessons are used to promote development of phonological awareness in the preschool classroom? This chapter will discuss a summary of the findings, interpretations of the findings, implications to the early childhood field, limitations, and future research possibilities.

Summary of the Findings

Throughout the coding process the findings were consistent as the data revealed that many of the participants understood that phonological awareness was the sound structure of individual languages. The first round of coding consisted of assigning one of ten codes that were previously determined prior to analysis. After the first round of coding, the data was analyzed looking for patterns. The three different patterns that were determined as the coding analysis progressed from the first round of coding to the second and final third round of coding included: phonological awareness, phonemic awareness, and phonics.

Phonological awareness was the first pattern found. This was determined because of the frequency of four particular codes. The four codes were: sound to symbol correspondence (SSC), syllabication (S), rhyming (R), and sound play (SP). Each one of these codes is a characteristic of phonological awareness. Sound to symbol correspondence (SSC) code can be defined as the association between sounds in spoken language. This code was the most often appearing code concerning the participants' responses on the question focusing on the definition of phonological awareness. Syllabication (S), rhyming (R), and sound play (SP) codes were the most occurring codes on the participants' responses to the activities question of the survey. These four codes are all representations of phonological awareness, making this the first prominent pattern.

Phonemic awareness was determined as the second pattern as the phoneme exercise (PE) code was present during the first coding session in both the definition question response and the activities question response. This is unique because the phoneme exercise (PE) code is the only code besides the sound to symbol

correspondence code (SSC) and the sound play (SP) code that was evident out of the ten total codes in the responses to the definition question. The reason it is unique is because both sound to symbol correspondence (SSC) and sound play (SP) are characteristics of phonological awareness, where as the phoneme exercise (PE) code represents the concept of phonemic awareness, which is a bit different than phonological awareness.

Phonics was the third apparent pattern. This pattern was determined as the final pattern as there were two remaining codes that did not fall into the phonological awareness (LA) or phonemic awareness (CA) categories. These two codes were sound to written symbol (SWS) and alphabet knowledge (AK). These codes were important to this research, as they were both categories of activities that were documented in the responses that did not fit into the phonological awareness or phonemic awareness categories, therefore creating the third category, phonics (P).

The participants' responses were coded again using phonological awareness (LA), phonemic awareness (CA), and phonics (P) codes. The findings from the final round of coding showed that phonological awareness (LA) was the most appearing code. Out of the three codes, phonological awareness (LA) occurred 68% of the time. With this information one might conclude that the majority of the participants in the study defined phonological awareness as the sound structure of ones language, and documented syllabication and rhyming activities as the most occurring activities used in the classroom to promote development of phonological awareness. The second appearing code was phonemic awareness (CA), which occurred 26% of the time, followed by the phonics (P) code that appeared only 6% of the time during coding.

Interpretations of the Findings

The phonological awareness (PA) code appeared most frequently, followed by phonemic awareness (CA), and then phonics (P). The findings from this study were surprising, as previous researchers have concluded that preschool teachers are confused about phonological awareness, confusing it with phonics (Bos et al., 2001). The interpretations of the findings will be discussed in detail from each of the three patterns discovered: phonological awareness, phonemic awareness, and phonics.

Phonological awareness.

The data from this study notes that the activities and lessons used to promote the development of phonological awareness in the preschool classroom consisted mostly of sound to symbol correspondence, syllabication and rhyming activities. Although sound play, morpheme exercises, onset & rime, phoneme exercises, alphabet knowledge, and sound to written symbol activities were also noted as being implemented in the classroom, but were noted less frequently. The data analysis shows that the majority, 68% of the teachers surveyed, understood the concept of phonological awareness. These participants defined phonological awareness as, the awareness of sounds in words and letters in language.

There is a contradiction between the current study and the Hawken et al. study on phonological awareness. The Hawken et al. (2005) study documented that a teacher demonstrated more phoneme exercise activities than syllabication activities in the classroom. While in this current study, syllabication was noted as the most common activity implemented in the classroom, followed by phonemic awareness. The teachers in this current study appeared to understand that syllabication is one important component

of phonological awareness, as they demonstrated this through both the definitions and the activities documented.

From the findings of this study teachers seem to understand that syllabication and rhyme are the most important or the most understood components of phonological awareness. This could be considered because they are the most frequently documented skills in the data. It may be necessary that the early childhood field establish professional development on the topic of phonological awareness. The purpose being to provide teachers with a variety of activities and skills that support the development of phonological awareness that can be included in teachers' lesson plans, going beyond syllable and rhyme concepts. Teachers need to incorporate activities that focus on the larger units of sounds in language such as words and phrases. For example, bringing awareness of each word in a sentence or phrase, such as breaking sentences down into individual words is an important phonological awareness activity that should also be incorporated in the curriculum. The majority of the teachers demonstrated the understanding of words and letters, but not one teacher recorded the understanding of sounds of words in phrases. This is an important component for the development of phonological awareness because it promotes the sound system of language as a whole; which includes the sounds of sentences, words, and letters.

Phonemic awareness.

Phonemic awareness is a sound to letter correspondence. It is a subtype of phonological awareness and is at the highest level of development. According to the California Preschool Learning Foundations, phonological awareness begins to develop between four and five years of age, and is a developmental progression from a sensitivity

to large units of sounds, words and phrases, to small units of sounds, syllables and phonemes (Abbot et al., 2008). Phonemic awareness was determined as the second pattern due to the teachers' responses to both the definitions and activities that indicated that phonological awareness was a concept focused on phoneme development. During the second round of coding, the phonemic awareness (CA) code appeared 26% of the time.

The findings of this current study were consistent with the Crim et al. (2008) study where survey research was conducted and then documented showing that preschool teachers were better prepared to teach syllabication over phoneme identification. This is positive in relation to literacy development, as Carroll et al. (2003) found through an assessment study with three and four year olds that children tend to develop syllable and rime awareness before phoneme awareness. Children who have exposure to large amounts of phonological awareness activities tend to have significant and independent long-term influence on the development of phoneme awareness (Carroll et al., 2003). This statement could be interpreted that phonological awareness develops prior to phonemic awareness.

Both the data from this current study and the Hawken et al. study documented teachers implementing similar phonemic awareness activities. The Hawken et al. (2005) study noted that the teacher facilitated initial sounds in words activities, as the teacher said, "Bammy Barch" for the student's name, Sammy March. This is similar to a participant's response in the current study who stated, "you scoop a letter up and talk about the sound it makes and what it looks like. I also clap out the syllables in there [*sic*] name and then ask who's name begins with this sound." Both activities in these two different studies are related, focusing on development at the phoneme level. Although the

recorded response from the current study also mentioned a syllabication activity, whereas the Hawken et al. study did not demonstrate the teacher engaging in syllabication activities.

During the final coding round of data analysis, particularly on the responses to the activities documented as being used in the preschool classroom, there were a total of five out of thirteen responses that were coded both as phonemic awareness (CA) and phonological awareness (LA). This shows that these teachers may be connecting these two terms as the same concept. There were not any definitions explicitly stating that these teachers understand the differences between the two terms. It appears that the teachers in this study are referring to phonemic awareness as phonological awareness. This is complicated as previously mentioned, phonemic awareness is one subtype of phonological awareness but it is concentrated at the phoneme level.

It is beneficial that teachers are including phonemic activities in preschool lesson plans because exposure to understanding phonemes is important for future reading success. It is also significant to consider whether or not these students are developmentally ready to learn about phonemes. Phonemic awareness is at the highest developmental level under the phonological awareness concept, and as previously stated phonological awareness begins to develop between four and five years of age. According to the California Preschool Learning Frameworks, "Most children achieve the phoneme segmentation level of awareness in kindergarten, although older preschool children sometimes reach this level" (Abbott et al., 2008, p. 133). Supporting this statement, it is possible that students may not be developmentally ready to learn phonemic awareness until closer to five years of age. Children develop at various levels therefore it is critical

that observation assessments be conducted in the preschool classroom to ensure that children are ready to learn about language at the phoneme level.

Phonics.

This current study is not consistent with previous studies, which have demonstrated misunderstandings between phonics and phonological awareness. There are very few notations in this study in regards to teachers defining or providing activities that define phonological awareness as a written letter to sound association. Obvious inconsistencies between this study and the Bos et al. (2001) study disclosed that Bos and colleagues reported two-thirds of practicing teachers thought that phonological awareness was, "a method of reading instruction that begins with individual letters and sounds" (p. 115). This statement describes phonics as a direct teaching of letter-sound relationships; it does not define phonological awareness. This is an example of past research and the confusion between the two terms among preschool teachers.

The O'Leary et al. (2010) study also contradicts this current study as the teachers reported that the phonological awareness activities implemented in the preschool classroom were centered on learning the letters of the alphabet. This supports the idea that preschool teachers are demonstrating confusion between phonics and phonological awareness. Considering such a small percentage of only 6% of the phonics (P) code appeared in the data analysis of this study, one might gather that the participants do not associate phonics and phonological awareness as the same concept.

As previous research has documented confusion between phonics and phonological awareness among teachers, it is quite possible that education and training have been provided to the preschool teachers in this study on the topic of phonological

awareness. Based on the findings from this research one cannot conclude that this confusion does not still exist in the preschool teacher population as a whole. Early literacy development must remain at the forefront of teacher preparation to ensure that this confusion becomes obsolete. “Without an underlying understanding of sounds in spoken words, without phonological awareness, children will not understand the phonics lesson their first grade teacher provides” (Abbott et al., 2008, p. 133).

Implications

The participants in this study appear to understand the concept of phonological awareness. They also reported that generally syllabication, rhyme, and phonemic awareness activities were implemented in the preschool classrooms to promote development of phonological awareness. Several participants noted phonemic awareness and phonological awareness as being the same concept. It is important that preschool teachers determine and clarify the differences between phonological awareness, phonemic awareness, and phonics to ensure that preschoolers are exposed to the foundations of early reading.

Preschool directors might consider providing trainings on the differences between the three concepts to bring a deeper understanding and curriculum planning that can be aligned with each concept to ensure that preschoolers are developing these early literacy skills. As teachers attend trainings they will be better equipped in writing lesson plans that encompass all three concepts. When teachers have a clear understanding of all three concepts they are competent in teaching these skills that are vital for early reading readiness, which sets the tone for future reading success.

It is critical that policy makers look at the various levels of educational requirements that have been set for preschool teachers and consider creating a standard of consistency. If the preschool teachers in this study all held the same level of education, would the results from this study be different? This is important to think about as we have learned through this research that preschool is often the first exposure to school for many children. It is significant in that preschool teachers must be educated themselves in literacy development to be prepared to educate students and provide them with pre-literacy skills. This could be a major factor in helping to close the achievement gap. As students' first teachers are educated and knowledgeable about early literacy skills, the better prepared the students are to begin learning how to read.

Limitations

Using an online survey can be seen as a limitation to this study for a couple of reasons. The first being that the written responses provided an adequate amount of information, yet some of the information that was provided needed further explanation. If an interview was conducted, there could have been more depth and clarifications to some of the questions concerning educational backgrounds, definitions, and activities documented by the participants. The second reason that the survey can be seen as a limitation to the study is that it is unclear as to how many of the participants followed the directions that were distributed with the survey, stating not to reference any type of resource when answering the questions on the survey. Interviews could have gathered more extensive responses that might have provided further insight on the topic of phonological awareness.

The sample size in this study was small and centralized to the northern part of San Diego County, which can be seen as a limitation. Further research on the topic of phonological awareness is much needed. A larger sample size may provide additional insight to the early childhood field.

Future Research

Considering phonemic awareness was the second most occurring code that emerged in the data analysis, it might be beneficial to research what teachers know and understand about the differences between phonological and phonemic awareness. Both these terms, along with phonics are terms that are often used interchangeably, but they are all actually very different in meaning. Studying teachers' understanding and perceptions on all three early literacy terms could bring additional evidence to the knowledge base of preschool teachers.

Conclusion

The purpose of this research was to investigate teachers understanding of phonological awareness. Phonological awareness is a pre-reading skill that does not develop naturally; it is developed as a consequence of children's engagement in specific experiences (Abbot et al., 2008). Preschool is often the first schooling experience for many children, and it is important that preschool teachers are knowledgeable and prepared to introduce these early literacy skills. Phonological awareness is an important early literacy skill; it facilitates children's later understanding that the sound sequences in spoken words are related to the letters in written words (Abbot et al., 2008). Exposure to phonological awareness is imperative in beginning to learn how to read. It is critical that society recognizes that literacy development starts from birth; it does not begin to

develop in kindergarten. Therefore it is significant that preschool teachers be held to the same education standards as kindergarten teachers. This same standard could provide consistency in the early childhood field in terms of salary, education level, and quality. As a consequence preschool teachers can prepare young children to enter kindergarten with the necessary skills to begin learning how to read.

References

- Abbot, D., Lundin, J., & Ong, F. (Ed). (2008). California Preschool Learning Foundations Volume 1. Sacramento, CA: California Department of Education.
- Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia, 51*(1), 97-120.
- Bus, A. G., & Van Ijzendoorn, M. H. (1999). Phonological awareness and early reading: a meta-analysis of experimental training studies. *Journal of Educational Psychology, 91*(3), 403-414.
- Carroll, J. M., Snowling, M. J., Stevenson, J., & Hulme, C. (2003). The development of phonological awareness in preschool children. *Developmental Psychology, 39*(5), 913-923.
- Child Care Law Center Inc. (2008). Analysis of title 22 and title 5 regulations affecting preschool programs. San Francisco, CA. Retrieved from <http://www.childcarelaw.org>.
- Crim, C., Hawkins, J., Thornton, J., Boon Rosof, H., Copley, J., & Thomas, E. (2008). Early childhood educators' knowledge of early literacy development. *Issues in Teacher Education, 17*(1), 17-30.
- Cunningham, A. E., Zibulsky, J., & Callahan, M. D. (2009). Starting small: building preschool teacher knowledge that supports early literacy development. *Reading and Writing: An Early Disciplinary Journal, 22*(4), 487-510.

- Early, D. M. & Winton, P. J. (2001). Preparing the workforce: Early childhood teacher preparation at 2- and 4- year institutions of higher education. *Early Childhood Research Quarterly, 16*(3), 285-306.
- Emad, A. M., & Yasser, A. A. (2010). Knowledge, skills, and practices, concerning phonological awareness among early childhood education teachers. *Journal of Research in Childhood Education, 24*(2), 172-185.
- Guimaraes, A. & Youngman, M. (1995). Portuguese preschool teachers' beliefs about early literacy development. *Journal of Research in Reading, 18*(1), 39-52.
- Hawken, L. S., Johnston, S. S., & McDonnell, A. P. (2005). Emerging literacy views and practices: results from a national survey of head start preschool teachers. *Topics in Early Childhood Special Education, 25*(4), 232-242.
- Hsieh, W., Hemmeter, M. L., McCollum, J. A., & Otrrosky, M. M. (2009). Using coaching to increase preschool teachers' use of emergent literacy teaching strategies. *Early Childhood Research Quarterly, 24*(3), 229-247.
- Lonigan, C. J., Anthony, J. L., Phillips, B. M., Purpura, D. J., Wilson, S. B., & McQueen, J. D. (2009). The nature of preschool phonological processing abilities and their relations to vocabulary, general cognitive abilities, and print knowledge. *Journal of Educational Psychology, 101*(2), 345-358.
- Majesterek, D. J., Shorr, D. N., Erion, V. L. (2000). Promoting early literacy through rhyme detection activities during head start circle-time. *Child Study Journal, 30*(3), 143-151.

- McMullen, M. B., & Alat, K. (2002). Education matters in the nurturing of the beliefs of preschool caregivers and teachers. *Early Childhood Research and Practice, 4*(2), 17.
- O'Connor, R. E. (1999). Teachers learning ladders to literacy. *Learning Disabilities Research & Practice, 14*(4), 203-214.
- O'Leary, P., Cockburn, M., Powell, D., & Diamond, K. (2010). Head start teachers' view of phonological awareness and vocabulary knowledge instruction. *Early Childhood Education Journal, 38*(3), 187-195.
- Powell, D. R., Steed, E. A. & Diamond, K. E. (2010). Dimensions of literacy coaching with head start teachers. *Topics in Early Childhood Special Education, 30*(3), 148-160.
- Prebler, A., Krajewski, K. & Hasselhorn, M. (2012). Working memory capacity in preschool children contributes to the acquisition of school relevant precursor skills. *Learning and Individual Differences, 23*(1), 138-144.
- Stemler, S. (2001). An overview of content analysis. *Practical Assessment, Research, & Evaluation, 7*(17). Retrieved from: <http://pareonline.net/getvn.asp?v=7&n=17>.
- Survey Monkey Inc. (2014). Palo Alto, CA. Retrieved from <http://www.surveymonkey.com>.
- Webb, M. L., Schwanenflugel, P. J., & Kim, S. (2004). A construct validation study of phonological awareness for children entering prekindergarten. *Journal of Psychoeducational Assessment, 22*(4), 304-319.