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# Phonological Awareness Instruction: Opinions and Practices of Educators and Speech-Language Pathologists in West Virginia

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PHONOLOGICAL AWARENESS INSTRUCTION:  
OPINIONS AND PRACTICES OF EDUCATORS AND  
SPEECH-LANGUAGE PATHOLOGISTS  
IN WEST VIRGINIA

Thesis submitted to  
the Graduate College of  
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In partial fulfillment of  
requirements for the degree of  
Master of Science  
Communication Disorders

by

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## ABSTRACT

### PHONOLOGICAL AWARENESS INSTRUCTION: OPINIONS AND PRACTICES OF EDUCATORS AND SPEECH-LANGUAGE PATHOLOGISTS IN WEST VIRGINIA

By Melinda J. Daniel

Research has shown phonological awareness to be a strong predictor of literacy. To support literacy development, a phonological awareness project was piloted in several West Virginia schools in 2001. This study compared WV educators based on employment setting (schools participating and those not participating in the phonological awareness project) and professional category (classroom teacher, reading specialist, speech-language pathologist) on answers to survey questions related to phonological awareness. Results showed no significant relationships between employment setting and responses. However, reading specialists reported spending more minutes per week providing phonological awareness instruction to children at risk for reading difficulty than did speech-language pathologists. Of concern was that over half of the responding speech-language pathologists reported no involvement in phonological awareness instruction in the regular curriculum, and over one-quarter reported that they did not provide phonological awareness instruction to children on their caseloads, who may be at risk for reading failure.

## **DEDICATION**

I am dedicating this work to my family. I want to thank my family for supporting me and all of my decisions. Their unfailing encouragement, support, love, and faith motivated me to get an education and to continue it now and in the future. They have always been there for me and I am very grateful for everything.

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## CHAPTER I

### Introduction

#### Overview of Reading and Phonological Awareness

Excellent reading ability is one of the most important factors contributing to academic success. Academic success, which presupposes strong literacy (i.e. reading and writing) skills, is highly correlated to economic success. Therefore, it is important that each and every child be given the opportunity to develop strong reading skills. However, research indicates that 17-20% of children living in the United States have significant difficulty learning to read, with more than one third of students in fourth grade nationwide and nearly 70% in some low-income urban schools reading below grade level (Education Commission of the States, 2004). Additionally, children who are not fluent readers by fourth grade are likely to continue to struggle with reading into adulthood (Nancollis, Lawrie & Dodd, 2005), highlighting the importance of prevention and/or early identification of reading problems.

Therefore, it is essential that professionals do whatever possible to ensure that children are given strong foundations to enable them to learn to read. To do so, it is important to identify early predictors of reading success. Phonological awareness has been found to be one of the strongest predictors of reading success (Badian, 2001; Bradley & Bryant, 1991; Catts, 1993; Schuele, 2004; Singleton, Thomas, & Horne, 2000). Many studies have found phonological awareness, which is the awareness of the sound structure of spoken language and its correspondence to a grapheme system, to be one of the most important predictors of both reading and spelling ability (Majsterek, Shorr, & Erion, 2000; Neuman, 2004a; Richgels, 2001; Sandberg, 2001; Stahl & Murray, 1994; Major & Handford Bernhardt, 1998). Children need an awareness of phonemes to grasp the alphabetic principle that underlies our system of written

language. Developing readers must be aware of the internal structure of words to benefit from reading instruction. If children understand that words can be divided into individual syllables and phonemes and that syllables and phonemes can be blended into words, they will be able to use letter-sound knowledge to read.

Researchers also have shown that the relationship between phonological awareness and reading success continues to mature throughout school. Children who develop phonological awareness skills are better prepared for later reading instruction, including instruction in phonics, word analysis, and spelling. If a child cannot “sound out a word,” it is possible that he may not have the underlying phonological awareness skills necessary to understand and use phonics skills (Chard & Dickson, 1999).

There are several factors that may place children at risk for difficulty with phonological awareness and literacy development. One important risk factor is specific language impairment (SLI). SLI is a disorder defined by exclusion. Children with SLI exhibit language difficulties in the absence of other factors, such as hearing loss, mental impairment, physical impairment, emotional disturbance, or environmental deprivation (Bishop, 1992a, 1992b; Lubert, 1981). Children with SLI have difficulty acquiring one or more of the components of language, i.e. form (phonology, morphology, and syntax), content (semantics), and use (pragmatics). Additionally, these children typically experience delays in acquiring metalinguistic awareness, i.e. the ability to analyze and think about language (Justice & Pullen, 2003). Phonological awareness is a component of metalinguistic awareness. As noted previously, a delay in the acquisition of this skill places these children at risk for difficulty learning to read (Chard & Dickson, 1999; Major & Handford Bernhardt, 1998).

Another important risk factor is low socioeconomic status (SES). Low SES often encompasses a broad array of conditions that may be detrimental to the health, safety, and development of young children, interfering with the development of phonological awareness and literacy skills (Nancollis et al., 2005; Justice, Invernizzi & Meier, 2002). Specifically, low SES tends to be associated with lower levels of parental education and income, with many low SES families living in communities where the overall SES of families is lower than average. These families often do not receive adequate nutrition and health services, including prenatal and pediatric care (Nancollis et al.). Additionally, they frequently lack literacy resources and their children may receive less exposure to reading than children from families with higher SES (Justice, Chow, Capellini, Flanigan & Colton, 2003). As a consequence, children from low SES backgrounds often have poorer phonological awareness and literacy skills compared to their peers from higher SES backgrounds (Nancollis et al.).

In 2001, Congress passed the *No Child Left Behind Act of 2001 (NCLB)*. This Act was designed to improve academic achievement of children in the nation's public schools. It gave school districts more money, control, and the flexibility to use resources where they were most needed. This Act provided more than one billion dollars a year to help children learn to read (U.S. Department of Education [USDE], 2005a; USDE, 2005b). Title I is the part of the Act that focuses on improving the academic abilities of those children who may be considered disadvantaged. Funds from this act go to high-poverty school districts to supplement reading and mathematics instruction. Ninety percent of school districts and half of public schools receive funding through this act (USDE, 2005b). "Reading First" is the part of this Act designed to ensure that children learn to read on grade level by the third grade. This program provides grants to states to help school districts improve students' reading through instructional methods

that are scientifically sound (USDE, 2005a; USDE, 2005b). As part of this Act, approximately 100,000 teachers have been trained to implement approved reading programs from kindergarten to third grade. *NCLB* has given children from lower SES families increased access to instruction and help outside of school hours to improve their academic skills (USDE, 2005b).

Research shows that children are much more likely to be successful in learning to read if they are taught by a team of professionals rather than by just one teacher (Steckbeck, 2004; Hadley, Simmerman, Long, & Luna, 2000). The team may consist of a classroom teacher, a reading specialist or a teacher of special education, and a speech-language pathologist. To optimize reading and/or phonological awareness instruction, it is essential to have the cooperation of all of these professionals. Each member of the team plays a unique, but interconnected role in literacy instruction. It is important for classroom teachers, especially at the beginning elementary levels such as kindergarten and first grade, to be members of the team, because formal literacy instruction starts during the kindergarten years and allows for more intense instruction in first grade (Justice et al., 2002). Title I educators are essential to the team because many are specifically trained to teach reading to students who are at risk for or currently having difficulty with this subject. Special education teachers should be involved because they modify general education curricula to fit the needs of students who receive special education services and give them one-on-one help to make sure they meet all educational requirements (Bureau of Labor Statistics, 2006a). Finally, speech-language pathologists have extensive educational preparation in child language and phonological development, making their involvement especially important in providing children with a strong foundation in phonological awareness skills necessary for reading development. The expertise of speech-language pathologists is especially important in helping children with language, especially phonological,

impairments acquire the phonological awareness foundation they need to successfully acquire reading skills (Justice et al., 2002; Catts, 1991; American Speech Hearing Association [ASHA], 2002; Spracher, 2000).

In answer to the challenge posed by the *No Child Left Behind Act*, schools throughout the United States are implementing programs to help young children enhance their phonological awareness skills and, in turn, their reading and spelling skills. West Virginia is one state that has begun such a program. The program *Phonological Awareness Instruction: A Collaborative Statewide Project* started during the 2001-2002 school year. This program focused on literacy skills of children in kindergarten and first grade. The purpose of this program was to increase educators' knowledge of how important phonological awareness is in reading, to give educators useful strategies to promote these skills, to put phonological awareness into kindergarten curricula, to provide small group intervention to children struggling to acquire phonological awareness skills in kindergarten and first grade, and to provide intervention before children experience failure. Fifteen schools were initially chosen to participate in the program. The children in these schools represented a range of socioeconomic and ethnic/racial groups that mirrored the state population. In each school a four-person team was formed to implement the program. This team consisted of a kindergarten teacher, a first grade teacher, a speech-language pathologist, and a title I or special education teacher. These educators received training so that the program would be implemented in a uniform way across each county in the state. Each year the number of elementary schools involved in the program has increased, bringing the total for the 2005-2006 academic year to 154.

The purpose of the current study was fourfold. First, with the current emphasis on the importance of teaching phonological awareness skills during kindergarten and first grade, we

assumed that professionals working in schools not involved in the WV Phonological Awareness program also would be teaching phonological awareness skills to children in their schools. So, we wanted to compare the opinions of professionals working in schools participating in the statewide phonological awareness program with those of professionals working in schools not participating on a number of factors related to the importance of providing children with early experiences, especially phonological awareness experiences, which support literacy development. Second, we wanted to determine if these opinions were also related to professional category (classroom teacher, Title I reading specialist or special education teacher, speech-language pathologist). Third, we wanted to determine if speech-language pathologists who worked in participating schools differed from those who worked in non-participating schools in terms of how likely they were to be part of phonological awareness instruction in the regular curriculum, how likely they were to provide phonological awareness instruction to children on their caseloads, what types of speech and/or language disorders the children to whom they provided phonological awareness instruction had, and how many minutes per week they spent providing phonological awareness instruction to children on their caseloads. Fourth, we wanted to determine if there was a relationship between professional category (Title I reading specialist or special education teacher and speech-language pathologist) and the number of minutes per week spent in providing phonological awareness instruction to children at risk for reading failure.

## CHAPTER II

### Review of Literature

#### Literate Language

A literate society is one in which reading and writing are important aspects of everyday life. Therefore, we typically think of a literate individual as one who is able to read and write (Watson, Layton, Pierce & Abraham, 1994). However, the term “literate language” has an even broader meaning. Greenhalgh and Strong (2001) defined literate language as “talking to learn” and “using language to monitor and reflect on experience, and reason about, plan, and predict experiences (p. 115).” Both early exposure to print and strong oral language skills (the ability to understand and use spoken language) support the development of literate language, and strong literacy skills, specifically reading and writing skills, are essential to the academic, economic and personal success of those individuals living in a literate society (Chard & Dickson, 1999; Greenhalgh & Strong; Spracher, 2000). What does it mean to be a proficient reader? Boswell (2004) said that, to be a proficient reader, one must be able to easily identify and pronounce words and understand their meanings. Additionally, he noted that proficient readers bring meaning to and get meaning from the texts they read. Also, Boswell stated that proficient readers use reading and writing activities to learn new skills.

Not only is reading essential to economic and personal success in the long run, but, in the short term reading helps children expand their vocabularies and improve overall language skills (Catts, 1993; Watson et al., 1994). Research also has shown that children who spend time reading perform better in school than their peers who read less often (Chard & Dickson, 1999, Catts, 1997). How does a child become a proficient reader; one who enjoys reading so much that he or she wants to read for pleasure? Research has shown that children entering kindergarten

need to have certain prerequisite skills to assist them in becoming successful readers. Indeed, children acquire the skills that give them good foundations for acquiring literate language from birth to approximately five years of age. For example, alphabet knowledge, letter-sound knowledge, knowledge of several components of phonological awareness, and oral language skills are predictors of children's later reading achievement. Collectively, these skills are known as emergent literacy (Justice et al., 2002).

### Emergent Literacy

Emergent literacy skills are those that are considered to be prerequisites for later developing literacy, i.e. reading and writing, skills (Hegde & Maul, 2006). Children acquire emergent literacy skills during the preschool and early school-age years. Emergent literacy skills can be divided into the following categories: written language awareness (alphabet knowledge and print awareness), literate features of oral language, and phonological awareness skills (Justice & Pullen, 2003; Justice et al., 2003). These components of emergent literacy are defined in Table 2.1 (Justice & Kaderavek, 2004).

Table 2.1. Components of Emergent Literacy

<i>Emergent literacy component</i>	<i>Description</i>
Written Language Awareness:	
1. Alphabet knowledge	Knowledge of the features and names of letters in upper- and lower-case
2. Print concepts	Knowledge of how print is organized with relationships between written language and metalinguistic terminology used to describe print.
Literate features of oral language	Use of syntactic and semantic features characterizing written texts to give meaning to decontextualized oral discourse.
Phonological awareness	Awareness of the sound structure of spoken language at the word, syllable, onset-rime, and phoneme levels.

First, written language awareness is a critical prerequisite to the acquisition of strong reading and writing skills. Two aspects of written language, or print, awareness are especially important in the development of reading. These are print concepts, including environmental print recognition, and alphabet knowledge (Pullen & Justice, 2003; Watson et al., 1994), both of which have been shown to be predictive of reading achievement and phonological awareness acquisition. It has been suggested that children begin to develop written language, or print, awareness skills at a very early age and continue to develop it throughout their school years (Pullen & Justice). This development begins when young infants, during the second six months of life, first recognize that a symbol, such as a word they hear spoken, can stand for an actual object in the environment (Owens, 2005). Later, during the preschool years, these children will understand that a symbol, such as a string of orthographic letters they see frequently in their environments, can represent an object. For example, a young child may immediately recognize

the sign over a store such as “K-Mart” and know that that particular word refers to the “object” K-Mart. When children recognize these high frequency words in the environment, they demonstrate an understanding of environmental print. This understanding leads to the acquisition of alphabet knowledge, the realization that an orthographic letter represents a specific sound or phoneme (Pullen & Justice; Wood, 2000). Alphabet knowledge allows children to understand that written words are made of up letters and that those letters make sounds which, when blended together, become spoken words. Therefore, children begin to understand that there are two ways to produce words (symbols) that represent objects in the environment. Words can be produced either in oral or in written form (Pullen & Justice). Knowledge of the alphabet, including knowledge of letter/sound correspondence, has been shown to be one of the best predictors of future reading attainment (Catts, 1993; Pullen & Justice; Watson et al.).

Second, oral language skills have been shown to strongly predict success in learning to read (Snow, Burns, & Griffin, 1998), with receptive (Dickinson & Tabors, 2001) and expressive vocabulary, specifically children’s ability to define words (Nation, Clark, Marshall, & Durand, 2004; Roth, Speece, & Cooper, 2002) predicting strong reading comprehension skills. Another aspect of oral language that has been strongly associated with reading success is children’s ability to include literate language features in their oral language (Pullen & Justice, 2003). Literate language features include the use of conjunctions (e.g. but, because, so, if), elaborated noun-phrases (e.g. the nice big boy, the water from the river; the dog jumping over the fence, the boy who likes me), mental verbs (e.g. think, wish, know), and linguistic verbs (e.g. promise, report, exclaim, say) (Paul, 2001).

Third, strong phonological awareness, which is the awareness of the sound structure of spoken language and its correspondence to a grapheme system, has been shown to predict

success in learning to read (Pullen & Justice, 2003), specifically predicting children's success in acquiring strong word decoding skills (Roth et al., 2002). Although written language awareness, oral language ability, especially vocabulary and literary aspects of oral language, and phonological awareness are all important predictors of success in reading, the present study will primarily focus on the role of phonological awareness in supporting reading development in young children.

### Phonological Awareness

Phonological awareness allows us to understand the different ways that language can be divided into smaller components and manipulated in various ways (Chard & Dickson, 1999). Phonological awareness has been defined as the awareness of the structure of spoken language at the level of the word, syllable, onset-rime, and phoneme (Justice and Kaderavek, 2004). There are several components of phonological awareness, ranging from simple to complex and developing throughout the preschool and early school-age years. Pullen and Justice (2003) described phonological awareness as developing on a continuum from shallow (large phonological features, such as words and syllables) to deep (phoneme representation). Nancollis et al. (2005) described this continuum as moving from the syllable and onset-rime level to the phoneme level. Table 2.2 summarizes the components of phonological awareness in the order of their development (Cassady & Smith, 2004; Chard & Dickson, 1999; Gilbertson & Bramlett, 1998; Justice, et al., 2002; Major & Handford Bernhardt, 1998; Pullen & Justice, 2003; Sandberg, 2001; Stahl & Murray, 1994).

Table 2.2. Components of Phonological Awareness

<i>Component</i>	<i>Description</i>	<i>Ages of acquisition</i>
Word and syllable awareness (segmentation)	Ability to count the number of words in a phrase or syllables in a word	3 – 4 years
Rhyming	Ability to identify and produce one-syllable words that differ in only the consonants that precede the first vowel, e.g. <u>bed</u> / <u>red</u> , <u>crawl</u> / <u>drawl</u> , <u>stop</u> / <u>hop</u>	3 – 4 years
Alliteration	The ability to recognize common sounds across words in the initial, medial, or final position of words, e.g. <u>b</u> all/ <u>b</u> ag, <u>t</u> an/ <u>m</u> at, map/ <u>t</u> rip.	3 – 4 years
Blending	The ability to combine smaller oral language units, such as onset-rime, syllables, and phonemes, into larger units, such as words and syllables, e.g. p – op = pop, pop – corn = popcorn, p – o – p = pop.	5 years
Identification of initial and final phonemes	Ability to say initial and final phonemes in words, e.g. <i>stop</i> begins with /s/ and ends with /p/.	6 years
Phoneme Segmentation	Ability to count the number of phonemes in a word, e.g. stop = 4 phonemes. Also, the ability to produce the phonemes in a word after hearing it, e.g. cat = /k/+ / $\Phi$ / +/t/	6 – 7 years
Phoneme Manipulation	e.g., bake – delete /b/ = ache tied – delete /d/ = tie	6 – 7 years

Prediction studies have shown that phonological awareness contributes uniquely to conventional literacy outcomes (Justice, et al., 2003; Pullen & Justice, 2003). Therefore, if a child has difficulty developing phonological awareness skills, explicit instruction should be provided to facilitate the acquisition of these skills. Explicit instruction in phonological awareness is especially important for those children with limited opportunities for language play

and for those who are otherwise at risk for reading disabilities. Although one would assume that the components of phonological awareness should be taught in developmental order, there is controversy about whether the components of phonological awareness represent different skills, with some being more strongly correlated to reading success than others, or if phonological awareness is a unified construct, with earlier developing components supporting later developing components (Chard & Dickson, 1999; Pullen & Justice; Wood, 2000; Yopp, 1988).

#### *Phonological Awareness Controversy*

One of the earliest developing components of phonological awareness is the ability to detect and generate rhyming words. Yopp (1988) suggested, however, that rhyming might tap a different underlying ability than other phonological awareness skills, suggesting that it might be independent of the development of other components of phonological awareness. Although some studies have found that the ability to detect rhymes differentiated good from poor readers in first grade (Badian, 2001), at age 8 (Singleton et al., 2000), and in seventh grade (Badian), other studies have found phonemic awareness to be a stronger predictor of later reading ability than rhyme awareness (Hulme, 2002; Hulme et al., 2002; Lundberg, Frost, & Peterson, 1988; Stanovich, Cunningham, & Cramer, 1984). However, in a longitudinal study, Wood (2000) found rhyming ability in preschool-aged children to be a strong predictor of later reading success. Bryant, McLean, Bradley and Crossland (1990) also found evidence that rhyme awareness made a direct contribution to reading that was independent of the contribution made by phonemic awareness. Some researchers have suggested that studies that failed to find significant relationships between rhyming and reading did so because they were conducted with older children, and ceiling effects were noted on the rhyming tasks used (Goswami, 2001; Lundberg et al.; Stanovich et al.; Yopp).

In contrast to Yopp (1988), other studies found that each component of phonological awareness supported the development of the next. For example, in a study undertaken to determine which factors contributed most strongly to children's ability to learn to read by analogy, Wood (2000) found that a subgroup of participants (mean age = 5:8), who performed poorly on a rhyme detection task also performed poorly on a phoneme detection task. Other studies found that mastery of more shallow phonological awareness skills, such as rhyming, facilitated the development of more complex skills, such as blending phonemes into words and segmenting words into phonemes (Chard & Dickson, 1999; Pullen & Justice, 2003), supporting the theory that phonological awareness is a unified construct and that earlier developing components support the development of later developing components. Therefore, as with all developmental tasks, it appears to be important for children to learn all of the components of phonological awareness, and teaching these skills in developmental order has the greatest potential to give children the support they need to master all of the phonological awareness skills in due time (Chard & Dickson).

### *Rhyming*

As noted in Table 2.2, rhyming is among the earliest components of phonological awareness to emerge in young children (Cassady & Smith, 2004; Chard & Dickson, 1999; Justice et al., 2002; Major & Handford Bernhardt, 1998; Neuman, 2004b; Pullen & Justice, 2003; Sandberg, 2001; Stahl & Murray, 1994; Wood, 2000). Studies have shown that children who were explicitly taught to rhyme during the preschool years learned this skill more effectively than children not explicitly taught the skill (Majsterek et al., 2000; Mitchell & Fox, 2001; Reynolds, Callihan, & Browning, 2003; van Kleeck, Gillam, & McFadden, 1998; Walton, Bowden, Kurtz, & Angus, 2001), with Reynolds et al. (2003) demonstrating that rhyming could

be effectively taught to children as young as three years. These findings strongly suggest that preschool-aged children should receive instruction in recognizing and generating rhyming words.

### *Blending and Segmenting*

If children entering school have a good foundation in the shallow components of phonological awareness, they will be better able to acquire the deeper levels. Taking phonemes and blending them into words and taking words and segmenting them into phonemes are skills that Pullen and Justice (2003) refer to as the deep components of phonological awareness. Research suggests that acquisition of these skills, which occur in normally developing children between the ages of five and seven years, provide the greatest benefit to reading acquisition (Chard & Dickson, 1999). Pullen and Justice recommend that instruction begin by giving a child an onset + a rime (e.g. b + at) and asking the child to blend those components into a word (e.g. bat). Then, the child is asked to segment a word into an onset + rime (e.g. bat = b + at). Following this, the child learns to take a series of phonemes and blend them into a word (e.g. b + a + t = bat) and to take a word and segment it into a series of phonemes (e.g. b + a + t = bat). Nancollis et al. (2005) found these skills to be strong predictors of reading success and essential for the acquisition of literate language. Pullen and Justice found that, when children developed blending and segmenting skills, their reading skills improved, as did other phonological awareness skills.

Research also suggests that the ability to blend phonemes into words is specifically correlated to word-decoding skills, while the ability to segment words into phonemes correlated to spelling ability (Cassady & Smith, 2004; Chard & Dickson, 1999). Both of these skills are necessary to master literate language.

*Combining Phonological Awareness Instruction with Alphabet Knowledge*

Although written language awareness, oral language, and phonological awareness are all independently strong predictors of literate language (Justice & Kaderavek, 2004), instruction that combines these skills can be a powerful support for the development of reading. One such combination is teaching children letter/sound correspondence (written awareness (alphabet knowledge)/phonological awareness). Knowledge of letter/sound correspondence is an important prerequisite for developing the three stages of literacy acquisition: logographic, alphabetic, and orthographic (Nancollis et al., 2005). The logographic and alphabetic stages develop simultaneously which then leads to the orthographic phase. The logographic phase is the stage of development in which a written symbol represents a spoken word without presenting the pronunciation such as the symbol “4” for the word “four.” The alphabetic stage refers to representation of the letters of the alphabet in a certain order. The orthographic phase represents the method of representing the sounds of a language by using written or printed symbols. Nancollis et al. have shown that letter-sound knowledge is essential for developing literacy and that phoneme manipulation skills are a strong predictor of reading success. Lack of awareness of either phonemes or letters may impact children’s ability to learn letter/sound correspondence and its function in decoding printed words (Catts, 1997). The use of letter/sound knowledge to read and build words as a consequence of developing phonological awareness skills is a strong predictor of later reading success. Instruction in early reading, specifically letter/sound correspondence, strengthens phonological awareness, especially the more sophisticated levels of phonemic awareness (Chard & Dickson, 1999).

## Children at Risk

### *Children with Specific Language Impairment (SLI)*

There is a strong relationship between children's oral language proficiency and emergent literacy development. Children with Specific Language Impairment (SLI) have language impairments in the absence of underlying problems such as sensory, neurological, or intellectual deficits, emotional disturbance, or environmental deprivation (Bishop, 1992a; 1992b; La Paro, Justice, Skibbe & Pianta, 2004; Lubert, 1981). Research has shown that children with oral language difficulties are more likely than other children to have problems learning to read (Justice et al., 2002). The more severe their language difficulties, the greater the risk these children have for poor literacy outcomes (Justice, et al., 2003).

Justice et al. (2003) found that preschool children with SLI consistently performed more poorly on emergent literacy tasks than did children with typically developing language skills. This was true for both written awareness and phonological awareness tasks. Additionally, numerous studies have shown that school-age children with reading difficulties are more likely to have oral language deficits than are children with average to above-average reading ability (Blaiklock, 2004; Catts, 1993; La Paro, et al., 2004; Menyuk, Chesnick, & Liebergott, 1991). For example, Catts, Fey, Zhang, & Tomblin (2001) found that 57% of 183 children who were poor readers in second grade had difficulty with receptive language ability, such as skills of vocabulary knowledge, grammatical understanding, and narrative comprehension, in kindergarten.

Chard and Dickson (1999) found that toddlers who demonstrated delays in the development of oral language skills had reading difficulties as second graders. Menyuk et al. (1991) found that 50% of children with SLI at five years of age demonstrated difficulties with

reading development when tested three years later. Bishop and Adams (1990) found that children with a diagnosis of SLI upon school entry had difficulty with reading accuracy and reading comprehension when tested at eight years of age. In a follow-up study, Snowling, Bishop, and Stothard (2000) found that nearly half of the children from the Bishop and Adams study were still having reading difficulties at 15 years of age. Bishop and her colleagues determined that preschoolers with SLI who had the greatest risk for developing reading difficulties were those who had language problems that were not resolved by the time they started formal reading instruction.

### *Children Living in Poverty*

Low socioeconomic status (SES) and social deprivation have been linked to poor language and literacy outcomes. Researchers have noted that children living in poverty often have less exposure to early language and emergent literacy activities than do children from higher SES environments (Justice et al., 2003). Without this early exposure, these children's language and emergent literacy skills often lag behind those of their peers living in higher SES environments. Indeed, Nancollis et al. (2005) found that, although the cognitive abilities of children living in low SES areas were similar to those of their higher SES peers, children from low SES environments demonstrated oral language abilities, specifically vocabulary knowledge (Gilbertson & Bramlett, 1998), that were significantly poorer than those of their higher SES peers, resulting in delayed acquisition of literate language upon school entry, which, if left untreated, leads to academic failure.

However, other researchers have pointed out that there are large individual differences in language and literacy performance among children from lower SES backgrounds. For example, although Fish and Pinkerman (2003) reported the mean score on the *Preschool Language*

*Inventory-Third Edition (PLS-3: Zimmerman, Steiner, & Pond, 1992)* of a sample of five-year-old children from low SES backgrounds in rural Appalachia to be significantly below the test mean, Reynolds (2005) noted that these children's individual scores were normally distributed. Fish and Pinkerman found that maternal interaction that was facilitative and not over-controlling predicted better language outcomes in this group of children. La Paro et al. (2004) also found that positive mother-child relationships, specifically maternal sensitivity, contributed significantly to language growth in preschool children with language impairment.

### Legislation Designed to Improve Reading in Young Children

#### *No Child Left Behind*

Congress had four goals in passing *The No Child Left Behind (NCLB) Act* in 2001. These goals included the following: 1) that schools be held accountable for children's learning outcomes, 2) that local educators be afforded greater control of their own programs, 3) that parents be given more options in deciding what is best for their children's educations, and 4) that educators be required to use teaching methods whose effectiveness has been demonstrated scientifically (USDE, 2005a). The intent of the *NCLB Act* was to improve the academic achievement of all students. To do this, *NCLB* has requirements, incentives, and resources to help states meet the challenges it sets forth. For example, all teachers must be qualified, by virtue of their education, to teach in their particular subject areas. Additionally, states must demonstrate an increase in the percentage of children who are proficient in reading and math, and states must decrease the performance gap between students from advantaged and disadvantaged backgrounds. To meet these challenges, states have been given additional funding for kindergarten through third grade reading programs and for before and after school programs,

and states have been given greater flexibility in the use of these funds (Education Commission of the States, 2004).

### *Reading First*

*Reading First* is the part of the *NCLB* Act whose purpose is to ensure that all children learn to read on grade level by the third grade (USDE, 2005a). Through this part of the *NCLB* Act, schools receive more than one billion dollars a year to ensure that children have the resources they need to meet this criterion. This funding specifically provides schools with additional resources, allowing more individualized reading instruction using scientifically sound instructional methods geared to the individual needs of each child. Research also has shown that literacy instruction is more effective if it is delivered, not just by one teacher, but by a team of professionals (Steckbeck, 2004; Hadley et al., 2000).

### Literacy Team

#### *Classroom Teachers*

Research has shown that it is important for young children to participate in emergent literacy activities if they are to develop the foundational skills that support reading success (Cassady & Smith, 2004; Justice, et al., 2003; Justice & Kaderavek, 2004; Justice & Pullen, 2003). Kindergarten and first grade teachers are important in helping children develop these foundational emergent literacy skills.

#### *Title I Reading Specialists*

Reading Specialists, who are certified classroom teachers with additional coursework in the effective teaching of reading, often assist classroom teachers in implementing literacy instruction. These individuals also work with children who are especially at risk for having reading difficulties.

*Special Education Teachers*

Special education teachers work with children who have a variety of disabilities that place them at risk for reading failure. Special education teachers often use and/or modify general education curricula to meet these children's special needs.

*Speech-Language Pathologists*

Speech-language pathologists also are an important part of a team approach to teaching pre-literacy skills. Speech-language pathologists have significant preparation in working with children with SLI and other types of language impairment. Due to the fact that children with language impairment are at significant risk for having difficulty acquiring literate language, remediating early language problems takes on paramount importance. In school settings, speech-language pathologists collaborate with classroom teachers, special education teachers, other school personnel, and parents to develop emergent literacy programs for children and support classroom activities (Bureau of Labor Statistics, 2006b).

West Virginia's Phonological Awareness Program

West Virginia responded to the challenge set forth by the *NCLB* Act, specifically *Reading First*, to implement scientifically based reading instruction. With the knowledge that phonological awareness deficits are typically seen in children who struggle to learn to read and that children who are not reading on grade level by third grade are likely to continue to struggle with reading throughout their school careers, West Virginia implemented a statewide phonological awareness project during the 2001-2002 academic year (Justice & Schuele, 2003). This project implemented by the West Virginia Department of Education (WVDE), based on research by Justice and Schuele, was named *Phonological Awareness Instruction: A Collaborative Statewide Project*.

Goals for the *WVDE Project* are, 1) to increase professional educators' knowledge of the importance of phonemic awareness in the reading program; 2) to supply professional educators with strategies to successfully teach and thus promote student mastery of phonemic awareness; 3) to supplement phonological awareness instruction in the kindergarten curriculum; 4) to provide small group intensive intervention to the lowest achievers in kindergarten and the lowest achievers in first grade; and 5) to provide intervention as part of regular education, before children experience failure (Justice & Schuele, 2003).

Key components for the project include in-service to phonological awareness teams in the school. These teams include a speech-language pathologist, a kindergarten classroom teacher, a first grade classroom teacher, and a Title I reading specialist. Throughout the duration of this project, four strands of instruction are provided. These strands include: a) first grade teachers provide phonological awareness review activities that support the development of phonemic awareness; b) Title I reading specialists or speech-language pathologists provide intensive phonological awareness instruction to six low achieving first graders during the fall of their first grade year; c) kindergarten teachers provide daily supplemental phonological awareness activities during classroom instruction. Speech-language pathologists and/or Title I reading specialists collaborate with kindergarten teachers in providing this instruction; and d) Title I reading specialists or speech-language pathologists provide intensive phonological awareness instruction to six low achieving kindergartners during the Spring of their kindergarten year (Justice & Schuele, 2003).

Fifteen schools participated during the first year of the program (2001-2002), 42 schools during the second year (2002-2003), 77 schools during the third year (2004-2005), and 154 during the present year (2005-2006) (Justice & Schuele, 2003).

### Aims of the Current Study

The current study had the following aims:

1. To determine what types of phonological awareness and non-phonological awareness experiences respondents considered most important for children to have during the preschool and early school-age years to promote literacy and to determine if there were significant relationships between survey responses and employment setting and/or professional category.
2. To determine which educational professionals and non-educational professionals respondents thought were most important in teaching phonological awareness skills to young children and to determine if there were significant relationships between survey responses and employment setting and/or professional category.
3. To determine respondents opinions as to the importance of teaching phonological awareness to young children in promoting literacy and to determine if there were significant relationships between survey responses and employment setting and/or professional category.
4. To determine the average number of minutes per day classroom teachers spent in phonological awareness instruction with the children in their classes and to determine if there was a significant relationship between survey responses and employment setting.
5. To determine the average number of minutes per week speech-language pathologists spent in phonological awareness instruction with children on their caseloads and to determine if there was a significant relationship between survey responses and employment setting.

6. To determine the average number of minutes per week Title I reading specialists spent in phonological awareness instruction with children they teach and to determine if there was a significant relationship between survey responses and employment setting.
7. To determine if there was a significant relationship between the number of minutes per week spent in phonological awareness instruction and professional category.
8. To determine the diagnostic categories of children speech-language pathologists provide with phonological awareness instruction.
9. To determine the proportion of speech-language pathologists involved in phonological awareness instruction in the regular education curriculum and to determine the nature of their involvement.

## **CHAPTER III**

### Method

#### Participants

Participants in this study included kindergarten teachers, first grade teachers (hereafter collapsed into classroom teachers), Title I reading specialists or special education teachers, and speech-language pathologists working in the state of West Virginia. These participants were drawn from two categories of schools; schools that were and those that were not participating in the statewide phonological awareness project.

#### Research Design

The study used a non-experimental design that examined the independence of categorical variables. These variables included professional category (classroom teacher, Title I reading specialist or special education teacher, speech-language pathologist), employment setting (schools participating in the statewide phonological awareness program and schools not participating in the statewide phonological awareness program), and respondents' answers to items on a researcher-generated survey.

#### Survey Instrument

The author developed six survey instruments, one for each participant group (kindergarten and first grade classroom teachers, Title I reading specialists or special education teachers, and speech-language pathologists from participating schools and kindergarten and first grade classroom teachers, Title I reading specialists or special education teachers, and speech-language pathologists from non-participating schools). These surveys asked participants which components of emergent literacy they felt to be most important in supporting the development of reading, which professionals they felt to be most important in providing phonological awareness

instruction to children, the type of involvement of the speech-language pathologist in phonological awareness instruction, the amount of time each professional spent in direct phonological awareness instruction and, for speech-language pathologists, the disorders children on their caseloads who received extra phonological awareness instruction experienced. Copies of the six surveys are included in Appendix A.

### Procedures

The surveys were disseminated using the Enhanced Version of *Advanced Survey* (<http://www.advancedsurvey.com>), an electronic survey instrument. *Advanced Survey* is designed so that surveys are returned anonymously, with identifying information encrypted and therefore not available to the researcher. The surveys were disseminated electronically to all kindergarten teachers, first grade teachers, Title I reading specialists, special education teachers, and speech-language pathologists in the state of West Virginia for whom email addresses were available. Because email addresses were not available for all possible participants in the state, this survey is considered one of convenience. The participants received an invitation via email giving them information about the surveys and providing them with the link to the appropriate survey (See Appendix B). Of a total of 610 surveys disseminated, 127 were returned resulting in a return rate of 20.8%. Of the 610 surveys sent, 171 were sent to professionals working in schools participating in the statewide phonological awareness project, while the other 439 surveys were sent to professionals working in schools not participating in the statewide phonological awareness project. Participating school professionals returned 53 surveys for a 31% return rate, while non-participating school professionals returned 74 surveys for a 16.8% return rate. This information is further elaborated in table 3.1.

Table 3.1. Response Rate to Surveys

<b>Surveys Sent to Professionals Working in Participating Schools</b>		
Participant	# responded / # sent	% response
Kindergarten Teachers	14 / 49	29%
First Grade Teachers	12 / 53	23%
Speech-Language Pathologists	14 / 24	58%
Title I/Special Education Teachers	13 / 45	29%
<b>Surveys Sent to Professionals Working in Non-Participating Schools</b>		
Participant	# responded / # sent	% response
Kindergarten Teachers	14 / 109	13%
First Grade Teachers	15 / 118	13%
Speech-Language Pathologists	24 / 92	26%
Title I/Special Education Teachers	21 / 120	18%

#### Data Analysis

The data collected from the surveys were coded and entered into the Statistical Package for the Social Sciences (SPSS) 13.0 for Windows for analysis. The data were analyzed using descriptive, Chi-Square, and Cramer's V statistical analyses.

#### Interrater Reliability

Twenty percent of the surveys returned in each of the six participant groups were randomly selected and a second coder independently coded and entered their data into SPSS. A unit-by-unit agreement ratio (Hegde, 2003) showed interrater reliability to be 100%.

## CHAPTER IV

### Results

Data were analyzed using a series of descriptive, Chi-Square, and Cramer's V Statistical Procedures. According to George and Mallery (2006), the Chi-Square procedure tests the independence, rather than the association, of variables. They further state that, since Chi-Square results are dependent on sample size and the number of cells in each analysis, multiple Chi-Squares often cannot be compared with one another. Therefore, we also used the Cramer's V procedure, which tests the strength of the association between variables. An alpha level of .05 was used to determine statistical significance for all analyses. All *p* values in the following tables followed by an asterisk (\*) were significant at the .05 level of statistical significance.

First, Chi-Square tests were conducted to determine the independence between demographic variables (age, gender, certification, number of years in public education, number of years in current position) and employment setting (participating and non-participating schools). Results showed independence between employment setting and all demographic variables. Additionally, Cramer's V analyses showed no significant relationships among any of the variables (See Table 4.1).

Table 4.1 Tests of independence and relationship between employment setting (participating, non-participating and demographic variables (age, gender, certification, number of years in public education, number of years in current position).

Variable	Participating	Non-	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	No.	Participating No.					
Age			2.390	5	.793	.142	.793
Under 22	1	1					
22 – 30	7	8					
31 – 40	7	11					
41 – 50	12	23					
51 – 60	20	28					
Over 60	1	0					
Gender			.155	1	.694	.036	.694
Male	2	4					
Female	46	65					
Certification			4.983	5	.418	.206	.418
Reading Endorsement	1	0					
Elementary Ed	6	15					
Speech Pathology	12	21					
School Administration	1	0					
Other	1	1					
Multiple	27	33					
# Yrs in Public Education			2.375	4	.667	.141	.667
Less than 5	6	7					
6 – 10	9	11					
11 – 15	5	10					
16 – 20	8	7					
More than 20	20	37					
# Yrs in Current Position			3.403	4	.493	.168	.493
Less than 5	18	21					
6 – 10	12	18					
11 – 15	4	6					
16 – 20	5	4					
More than 20	9	23					

Next, Chi-Square tests were employed to test the independence between demographic variables (age, gender, number of years in public education, number of years in current position) and professional category (classroom teacher, Title I reading specialist or special education teacher, speech-language pathologist). Results showed independence only between gender and

professional category. All other demographic variables were not independent of professional category, with Cramer's  $V$  showing weak, but statistically significant relationships between the following variables: age and professional category, number of years in public education and professional category, and number of years in current position and professional category. These results are shown in Table 4.2.

Table 4.2 Tests of independence and relationship between professional category (classroom teacher, Title I reading specialist or special education teacher, speech-language pathologist) and demographic variables (age, gender, number of years in public education, number of years in current position).

Variable	CR Teacher	Title I or Special Ed Teacher	SLP	$X^2$	$df$	$P$	Cramer's $V$	$p$
	No.	No.	No.					
Age				21.512	10	.018*	.301	.018*
Under 22	0	0	2					
22 – 30	9	4	2					
31 – 40	3	9	6					
41 – 50	11	9	15					
51 – 60	26	10	12					
Over 60	0	1	0					
Gender				4.634	2	.099	.199	.099
Male	1	4	1					
Female	46	29	36					
# Yrs in Public Education				16.155	8	.040*	.367	.040*
Less than 5	6	3	4					
6 – 10	7	6	7					
11 – 15	3	9	3					
16 – 20	10	4	1					
More than 20	24	11	22					
# Yrs in Current Position				23.059	8	.003*	.310	.003*
Less than 5	14	17	8					
6 – 10	13	8	9					
11 – 15	8	2	0					
16 – 20	5	2	2					
More than 20	10	4	18					

Further results are summarized according to the aims of the study. The first aim was to determine which phonological awareness and non-phonological awareness experiences respondents felt to be most important in promoting literacy. To promote literacy, respondents felt that letter/sound correspondence was the most important phonological awareness skill for children to learn, with blending sounds into words being the second most important. Respondents overwhelmingly felt that adults' reading to children was the most important non-phonological awareness experience for children to have to promote literacy. Respondents were almost equally divided in rating a strong curriculum and sight-word instruction as being the second most important non-phonological awareness skill in promoting literacy. Chi-Square analyses showed that participants' responses to both sets of survey questions were independent of both employment setting (see Table 4.3) and professional category (See Table 4.4). Furthermore, Cramer's V analyses showed no significant relationship between participants' responses and either of these variables.

Table 4.3 Tests of independence and relationship between employment setting and the following variables: component of phonological awareness considered most important for reading, component of phonological awareness considered second most important for reading, non-phonological awareness activity most important for reading, non-phonological awareness activity second most important for reading.

Variable	Participating No.	Non- Participating No.	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
Phonological Awareness Component Most Important for Reading			8.092	7	.325	.252	.325
Letter/Sound Correspondence	31	37					
Blend syllables into words	1	0					
Identify letters	2	2					
Segment words into syllables	1	1					
Identify beginning sounds	2	3					
Segment words into sounds	3	2					
Blend sounds into words	7	24					
Rhyming instruction	6	5					
Phonological Awareness Component Second Most Important for Reading			4.384	7	.735	.188	.735
Letter/Sound Correspondence	7	16					
Blend syllables into words	6	5					
Identify letters	6	9					
Segment words into syllables	2	2					
Identify beginning sounds	4	7					
Segment words into sounds	3	9					
Blend sounds into words	18	19					
Rhyming instruction	5	6					
Non-phonological awareness activity most important for reading			4.550	4	.337	.193	.337
Reading to children	40	58					
Sight word instruction	7	3					
Organized schedule	1	2					
Strong curriculum	2	4					
Teaching word meaning	1	4					
Non-phonological awareness activity second most important for reading			2.276	4	.685	.137	.685
Reading to children	9	9					
Sight word instruction	14	24					
Organized schedule	1	1					
Strong curriculum	16	27					
Teaching word meaning	11	10					

Table 4.4 Tests of independence and relationship between professional category and the following variables: component of phonological awareness considered most important for reading, component of phonological awareness considered second most important for reading, non-phonological awareness activity most important for reading, non-phonological awareness activity second most important for reading.

Variable	<u>CR</u>	<u>Title I or</u>	<u>SLP</u>	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	<u>Teacher</u>	<u>Special Ed</u>	<u>Teacher</u>					
	No.	No.	No.					
Phonological Awareness Component Most Important for Reading				18.865	14	.170	.273	.170
Letter/Sound Correspondence	26	16	26					
Blend syllables into words	1	0	0					
Identify letters	4	0	0					
Segment words into syllables	0	1	1					
Identify beginning sounds	1	3	1					
Segment words into sounds	2	1	2					
Blend sounds into words	15	8	8					
Rhyming instruction	6	5	0					
Phonological Awareness Component Second Most Important for Reading				13.719	14	.471	.235	.471
Letter/Sound Correspondence	14	2	7					
Blend syllables into words	3	3	5					
Identify letters	8	5	2					
Segment words into syllables	1	1	2					
Identify beginning sounds	3	6	2					
Segment words into sounds	4	4	4					
Blend sounds into words	15	10	12					
Rhyming instruction	5	3	3					
Non-phonological awareness activity most important for reading				8.984	8	.344	.192	.344
Reading to children	45	28	25					
Sight word instruction	5	2	3					
Organized schedule	1	1	1					
Strong curriculum	2	1	3					
Teaching word meaning	0	1	4					
Non-phonological awareness activity second most important for reading				8.031	8	.430	.181	.430
Reading to children	5	3	10					
Sight word instruction	17	11	10					
Organized schedule	1	1	0					
Strong curriculum	21	12	10					
Teaching word meaning	8	6	7					

The second aim of the study was to determine which educational professionals respondents felt to be most important to the phonological awareness team and to determine if respondents also felt that parents were important in teaching phonological awareness skills to their children. Results showed that respondents felt that classroom teachers were the most important members of the phonological awareness team, with Title I reading specialists and speech-language pathologists also being important, in that order. Chi-Square analyses showed that employment setting, but not professional category, was independent of respondents' opinions regarding the most important professional members of the phonological awareness team. Cramer's V showed a weak, but statistically significant, association between professional category and respondents' opinions regarding the most important professional members of the phonological awareness team. However, Cramer's V did not show a significant association between employment setting and respondents' opinions regarding the professional makeup of the phonological awareness team. These results are shown in tables 4.5 and 4.6.

When asked to indicate the most important persons in helping children learn phonological awareness, respondents felt that classroom teachers were most important and parents second most important, with Chi-Square analyses showing independence between responses and both employment setting and professional category. Likewise, Cramer's V showed no significant association among these variables. These results also are shown in Tables 4.5 and 4.6.

Table 4.5 Tests of independence and relationship between employment setting and the following variables: Most important professional, second most important professional, and third most important professional on the phonological awareness team; most important person and second most important person in helping a child with phonological awareness.

Variable	Participating	Non- Participating	$X^2$	df	P	Cramer's V	P
	No.	No.					
Most important professional			8.551	5	.128	.266	.128
Social Worker	0	1					
Classroom Teacher	25	45					
Speech-Language Pathologist	6	14					
Title I Reading Specialist	15	9					
LD Teacher	1	0					
Other	2	3					
Second most important professional			4.327	5	.503	.189	.503
Social Worker	0	1					
Classroom Teacher	8	12					
Speech-Language Pathologist	18	17					
Title I Reading Specialist	20	36					
LD Teacher	3	4					
Other	0	2					
Third most important professional			9.344	6	.155	.278	.155
Social Worker	1	0					
Classroom Teacher	9	8					
Speech-Language Pathologist	16	22					
Title I Reading Specialist	9	20					
Principal	2	0					
LD Teacher	12	18					
Other	0	4					
Most important individual			5.844	4	.211	.221	.211
Classroom Teacher	30	53					
Speech-Language Pathologist	1	5					
Parent	14	13					
Other Professional	1	0					
Other	2	1					
Second most important individual			5.682	4	.224	.218	.224
Classroom Teacher	11	17					
Speech-Language Pathologist	13	12					
Parent	15	25					
Other Professional	5	16					
Other	4	2					

Table 4.6 Tests of independence and relationship between professional category and the following variables: Most important professional, second most important professional, and third most important professional on the phonological awareness team; most important person and second most important person in helping a child with phonological awareness.

Variable	<u>Classroom Teacher</u> No.	<u>Title I or Special Ed Teacher</u> No.	<u>SLP</u> No.	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
Most important professional				26.579	10	.003*	.331	.003*
Social Worker	1	0	0					
Classroom Teacher	36	19	15					
Speech-Language Pathologist	7	0	13					
Title I Reading Specialist	6	11	7					
LD Teacher	0	1	0					
Other	1	2	2					
Second most important professional				7.848	10	.644	.180	.644
Social Worker	0	1	0					
Classroom Teacher	8	5	7					
Speech-Language Pathologist	14	10	11					
Title I Reading Specialist	24	16	16					
LD Teacher	5	0	2					
Other	0	1	1					
Third most important professional				16.362	12	.175	.260	.175
Social Worker	0	1	0					
Classroom Teacher	4	4	9					
Speech-Language Pathologist	20	11	7					
Title I Reading Specialist	13	4	12					
Principal	0	1	1					
LD Teacher	13	10	7					
Other	1	2	1					
Most important individual				13.552	8	.094	.238	.094
Classroom Teacher	39	19	25					
Speech-Language Pathologist	1	1	4					
Parent	9	12	6					
Other Professional	0	1	0					
Other	1	0	2					
Second most important individual				13.166	8	.106	.234	.106
Classroom Teacher	10	10	8					
Speech-Language Pathologist	8	4	13					
Parent	23	8	9					
Other Professional	7	9	5					
Other	2	2	2					

To determine whether the significant association between professional category and opinions as to who was the most important professional member of the phonological awareness team was influenced by the demographic variables (age, number of years in public education, number of years in current position) earlier found to be significantly related to professional category, we conducted additional Chi-Square and Cramer's V procedures to compare respondents' opinions concerning the most important professional member of the phonological awareness team with each of the demographic variables listed above. Cramer's V results showed no statistically significant associations between respondents' opinions concerning the most important professional member of the phonological awareness team and any of the demographic variables. Furthermore, Chi-Square analyses showed these variables to be independent of each other. These results, shown in Table 4.7, suggest that professional category, rather than demographic variables, was significantly related to respondents' opinions concerning the most important professional member of the phonological awareness team.

Table 4.7 Tests of independence and relationship between demographic variables and respondents' opinions concerning the most important professional on the phonological awareness team.

Variable	<u>Social Worker</u>	<u>Classroom Teacher</u>	<u>SLP</u>	<u>Title I Reading</u>	<u>LD Teacher</u>	<u>Other</u>	$X^2$	$df$	$P$	<i>Cramer's V</i>	$p$
Age							16.954	20	.656	.189	.656
Under 22	0	2	0	0	0	0					
22 – 30	0	10	3	2	0	0					
31 – 40	0	10	1	6	0	1					
41 – 50	0	24	2	7	0	2					
51 – 60	0	22	14	9	1	2					
Over 60	0	1	0	0	0	0					
# Yrs in Public Education							10.848	20	.950	.150	.950
Less than 5	0	8	2	3	0	0					
6 – 10	0	12	3	4	0	1					
11 – 15	0	8	2	4	0	1					
16 – 20	0	2	3	9	1	0					
More than 20	1	32	10	11	0	3					
# Yrs in Current Position							22.462	20	.316	.216	.316
Less than 5	1	23	6	7	0	2					
6 – 10	0	19	3	6	0	2					
11 – 15	0	5	3	2	0	0					
16 – 20	0	3	1	3	1	1					
More than 20	0	19	7	6	0	0					

The third aim of the study was to determine respondents' opinions concerning the importance of the statewide phonological awareness program (participating schools) and phonological awareness in general (non-participating schools) in promoting literacy. Results showed that the vast majority of respondents felt that phonological awareness instruction was important in promoting literacy. Chi-Square analyses showed that professional category was independent of respondents' opinions regarding the efficacy of phonological awareness. This was true both for respondents working in participating schools and for those working in non-participating schools. Cramer's V also showed no significant relationship between professional category and respondents' opinions. These results are shown in Tables 4.8 and 4.9.

Table 4.8 Tests of independence and relationship between professional category and participating respondents' opinions concerning the importance of the stateside phonological awareness program in promoting literacy.

Variable	<u>Classroom</u>	<u>Title I or Special Ed</u>	<u>SLP</u>	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	<u>Teacher</u>	<u>Teacher</u>	No.					
Importance of statewide PA program in promoting literacy	No.	No.	No.	4.430	4	.351	.245	.351
Important	10	6	8					
Unimportant	4	1	1					
Other	2	4	1					

Table 4.9 Tests of independence and relationship between professional category and non-participating respondents' opinions concerning the importance of phonological awareness instruction in promoting literacy.

Variable	<u>Classroom</u>	<u>Title I or Special Ed</u>	<u>SLP</u>	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	<u>Teacher</u>	<u>Teacher</u>	No.					
Importance of phonological awareness in promoting literacy	No.	No.	No.	1.469	2	.480	.144	.480
Important	28	19	23					
Unimportant	1	0	0					
Other	0	0	0					

The fourth aim of the study was to determine the average number of minutes per day classroom teachers spent in phonological awareness instruction with the children in their classes. The majority of classroom teachers reported spending between 11 and 30 minutes per day on phonological awareness instruction. Although the Chi-Square analysis did show independence between responses and employment setting and Cramer's V did not show a significant association between these variables, there was a trend suggesting that more respondents from non-participating schools reported spending more than 30 minutes per day in phonological awareness instruction than did respondents from participating schools. Results are shown in Table 4.10.

Table 4.10 Tests of independence and relationship between employment setting and the number of minutes per day classroom teachers spend in phonological awareness instruction.

Variable	<u>Participating</u>	<u>Non-Participating</u>	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	No.	No.					
# of minutes per day in PA instruction			7.365	3	.061	.380	.061
Less than 10	1	1					
11 – 30	11	15					
31 – 60	4	12					
More than 60	6	1					

The fifth aim of the study was to determine the average number of minutes per week speech-language pathologists spent in phonological awareness instruction with children on their caseloads. Results showed that speech-language pathologists spent 30 minutes or less per week in phonological awareness instruction with children on their caseloads, with half of the respondents reporting spending less than 10 minutes per week. Chi-Square analysis showed independence between responses and employment setting and Cramer's V showed no significant relationship between responses and employment setting. These results can be seen in Table 4.11.

Table 4.11 Tests of independence and relationship between employment setting and the number of minutes per week speech-language pathologists spend in phonological awareness instruction with children on their caseloads.

Variable	<u>Participating</u>	<u>Non-Participating</u>	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	No.	No.					
# of minutes per week in PA instruction			4.379	3	.223	.344	.223
Less than 10	9	8					
11 – 30	5	11					
31 – 60	0	3					
More than 60	0	1					

The sixth aim of the study was to determine the average number of minutes per week Title I reading specialists and special education teachers spent in phonological awareness instruction with children they teach. Results showed wide variety in the amount of time reported, with responses ranging from less than 10 minutes per week to more than 60 minutes

per week. Chi-Square analysis showed independence and Cramer's V showed no significant relationship between responses and employment setting. These results are seen in Table 4.12.

Table 4.12 Tests of independence and relationship between employment setting and the number of minutes per week Title I reading specialists and special education teachers spend in phonological awareness instruction with children they teach.

Variable	<u>Participating</u>	<u>Non-Participating</u>	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	No.	No.					
# of minutes per week in PA instruction			2.428	3	.488	.271	.488
Less than 10	2	1					
11 – 30	5	8					
31 – 60	2	7					
More than 60	4	4					

The seventh aim of the study was to determine if there was a significant relationship between the number of minutes per week spent in phonological awareness instruction and professional category. Cramer's V showed a moderate, statistically significant, relationship between professional category and the number of minutes per week spent in phonological awareness instruction, with Title I Reading specialists reporting more time spent than speech-language pathologists. Likewise, Chi-Square analysis showed a lack of independence between these variables. These results can be seen in Table 4.13.

Table 4.13 Tests of independence and relationship between professional category (Title I reading specialist/special education teacher, speech-language pathologist) and the number of minutes per week spent in phonological awareness instruction.

Variable	<u>Title I or Special Ed Teacher</u>	<u>SLP</u>	$X^2$	<i>df</i>	<i>p</i>	<i>Cramer's V</i>	<i>p</i>
	No.	No.					
# of minutes per week in PA instruction			18.386	3	<.001	.513	<.001
Less than 10	3	17					
11 – 30	13	16					
31 – 60	9	3					
More than 60	8	1					

To determine whether any of the demographic variables (age, number of years in public education, number of years in current position) earlier found to be significantly related to

professional category might have influenced the outcome shown in Table 4.13, we conducted Cramer's V and Chi-Square analyses to evaluate the relationship and independence between each of these demographic variables and the number of minutes per week respondents' spent in phonological awareness instruction. Results, shown below in Table 4.14, showed that all variables were independent of each other; hence there were no significant relationships between any of the demographic variables and number of minutes respondents spent in phonological awareness instruction. These findings suggest that Title I reading specialists spend more time providing phonological awareness instruction than do speech-language pathologists and that this finding is not influenced by demographic factors.

Table 4.14 Tests of independence and relationship between demographic variables and the number of minutes per week Title I reading specialists/special education teachers and speech-language pathologists reported spending in phonological awareness instruction.

Variable	Less than	11 – 30	31 – 60	Greater	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	10			than 60					
Age	No.	No.	No.	No.	8.999	15	.878	.207	.878
Under 22	0	2	0	0					
22 – 30	3	1	1	1					
31 – 40	3	6	4	2					
41 – 50	8	8	4	4					
51 – 60	6	11	3	2					
Over 60	0	1	0	0					
# Yrs in Public Education					13.367	12	.343	.252	.343
Less than 5	2	5	1	0					
6 – 10	5	5	2	1					
11 – 15	1	4	4	3					
16 – 20	0	3	2	0					
More than 20	12	13	3	5					
# Yrs in Current Position					12.860	12	.379	.247	.379
Less than 5	4	12	4	5					
6 – 10	5	6	4	2					
11 – 15	0	1	1	0					
16 – 20	0	2	1	1					
More than 20	11	8	2	1					

The eighth aim of the study was to determine the diagnoses of children to whom speech-language pathologists provide phonological awareness instruction. Responses were equally divided among providing phonological awareness instruction to children with articulation disorders, other disorders (syntactic/morphological, semantic, pragmatic), and not providing phonological awareness instruction at all. Chi-Square analyses showed independence between responses and employment setting, with Cramer's V showing a non-significant association between the variables. These results are seen in Table 4.15.

Table 4.15 Tests of independence and relationship between employment setting and speech-language disorder type of children who receive phonological awareness instruction from speech-language pathologists.

Variable	Participating	Non-Participating	$X^2$	<i>df</i>	<i>P</i>	<i>Cramer's V</i>	<i>p</i>
	No.	No.					
Disorder Type			5.828	4	.212	.397	.212
Articulation	4	6					
Phonological	1	3					
Do not provide	3	6					
Other	3	8					
Multiple	3	0					

The ninth aim of the study was to determine the proportion of speech-language pathologists who reported being involved in phonological awareness instruction in the regular education curriculum and to determine the nature of their involvement. Results showed that about half of speech-language pathologists reported being involved in phonological awareness instruction in the regular curriculum. Cramer's V showed no significant relationship between type of employment setting and responses to this question, with Chi-Square analysis showing independence between the variables. More than half of the speech-language pathologists responding to the survey reported not being involved in their school's phonological awareness program. Other responses were equally divided among providing extra services for children on their caseloads, providing multiple services, and "other" (assisting Title I reading specialists with

testing, assisting with school-wide testing). Of interest is that no speech-language pathologist reported collaborating with classroom teachers. Cramer's  $V$  showed no relationship between employment setting and responses, with Chi-Square analysis showing independence between these variables. These results can be seen in Table 4.16.

Table 4.16 Tests of independence and relationship between employment setting and the following variables: involvement of speech-language pathologists in regular classroom phonological awareness instruction and the nature of that involvement.

Variable	Participating	Non- Participating	$X^2$	$df$	$P$	Cramer's $V$	$p$
	No.	No.					
SLP involved in PA in regular classroom			1.137	1	.286	.175	.286
Yes	8	9					
No	6	14					
Nature of SLP involvement			1.955	3	.582	.230	.381
Extra for Caseload	4	3					
Not involved	6	9					
Other	2	6					
Multiple	5	5					

### Overall Conclusions

1. Respondents felt that letter/sound correspondence and blending sounds into words were the phonological awareness skills most important for reading.
2. Respondents felt that reading to children was the most important non-phonological awareness experience adults could provide children to help in promoting literacy.
3. Respondents felt that the statewide phonological awareness program (participating respondents) and phonological awareness instruction in general (non-participating participants) were important in promoting literacy.
4. Classroom teachers, Title I reading specialists, and speech-language pathologists were thought to be the professionals most important for the phonological awareness team, in that order. However, ranking of the most important team member differed depending on

the professional category of the respondent (classroom teacher, Title I reading specialist or special education teacher, and speech-language pathologist).

5. When asked which individuals were most important in helping children acquire phonological awareness skills, respondents chose classroom teachers and parents, in that order.
6. The majority of classroom teachers reported spending between 11 and 30 minutes per day in phonological awareness instruction.
7. The majority of speech-language pathologists reported spending 30 minutes or fewer per week in phonological instruction with children on their caseloads, with a substantial number reporting spending less than 10 minutes per week.
8. Title I reading specialists reported a range of time spent in phonological awareness instruction, with responses ranging from less than 10 to more than 60 minutes per week. There was a trend suggesting that more respondents from schools not participating in the statewide phonological awareness program spend more than 30 minutes per day in phonological awareness instruction than do respondents from schools participating in the program.
9. Title I reading specialists reported spending more time per week in phonological awareness instruction than did speech-language pathologists.
10. Although there was not a significant relationship between employment setting and whether speech-language pathologists provided phonological awareness instruction in the regular curriculum, over half of the speech-language pathologists surveyed indicated they did not provide such instruction.

11. Speech-language pathologists were more likely to report providing phonological awareness instruction for children on their caseloads with articulation than with any other single disorder. However, about one quarter of the speech-language pathologists surveyed reported not providing phonological awareness instruction.

## CHAPTER V

### Discussion

The purpose of the current study was fourfold. First, with the current emphasis on the importance of teaching phonological awareness skills during kindergarten and first grade, we assumed that professionals working in schools not involved in the WV Phonological Awareness program also would be teaching phonological awareness skills to children in their schools. So, we wanted to compare professionals working in schools participating in the statewide phonological awareness program with those working in schools not participating in the program regarding their opinions on a number of factors related to the importance of providing children with early experiences, especially phonological awareness experiences, which support literacy development. We also wanted to compare them the types and amount of phonological awareness instruction they provided. Our results showed no relationship between employment category and participants' responses to any survey question. These findings indicated that all respondents, regardless of employment setting, were cognizant of the importance of including phonological awareness activities in the kindergarten and first grade curricula.

Second, we wanted to determine if survey responses were related to respondents' professional category (classroom teacher, Title I reading specialist or special education teacher, speech-language pathologist). There was only a significant relationship between professional category and respondents' opinions regarding the most important professional needed for the school's phonological awareness team. Although the majority of professionals in each category felt that classroom teachers were the professionals most important in providing phonological awareness instruction, members of each of the other categories (Title I reading specialists/special

education teachers and speech-language pathologists) were more likely than respondents' in other categories to name their category as most important (See table 5.1 and figures 5.1 and 5.2).

Table 5.1 Respondents' opinions regarding the most important professional member of the phonological awareness team by employment setting.

Variable	<u>Classroom Teacher</u>	<u>Classroom Teacher</u>	<u>Title I or Special Ed Teacher</u>	<u>Title I or Special Ed Teacher</u>	<u>SLP</u>	<u>SLP</u>
	No.	Percentage	No.	Percentage	No.	Percentage
Most important professional						
Social Worker	1	2%	0	0%	0	0%
Classroom Teacher	36	71%	19	58%	15	41%
Speech-Language Pathologist	7	14%	0	0%	13	35%
Title I Reading Specialist	6	12%	11	33%	7	19%
LD Teacher	0	0%	1	3%	0	0%
Other	1	2%	2	6%	2	5%
<b>Total</b>	<b>51</b>	<b>100%</b>	<b>33</b>	<b>100%</b>	<b>37</b>	<b>100</b>

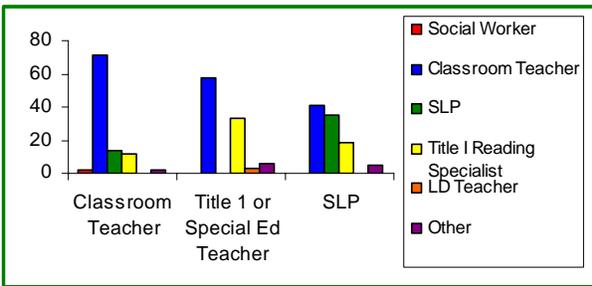


Figure 5.1. Opinions regarding the most important member of the school's phonological awareness team based on professional category.

That classroom teachers were chosen as the most important professional to be on the phonological awareness team was not surprising given that these professionals have the primary responsibility for the education of children during kindergarten and first grade.

We also noted that classroom teachers who designated another professional as being most important to the team about equally designated Title I reading specialists and speech-language pathologists as this individual. However, it is interesting to note that, while speech-language pathologists designated themselves as being the

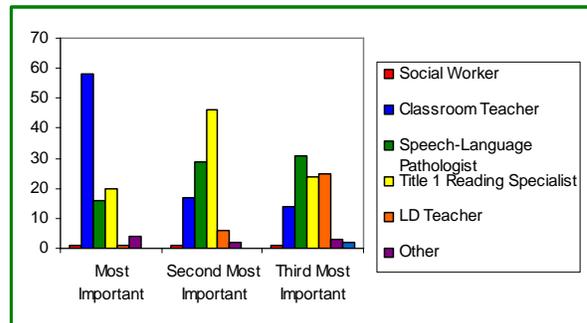
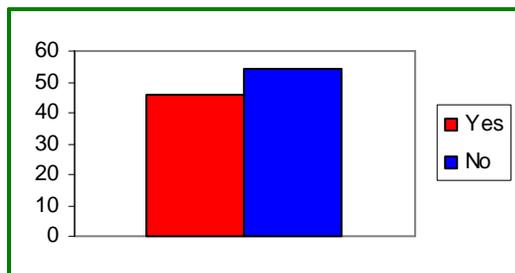


Figure 5.2. Opinions regarding the first, second, and third most important members of the school's phonological awareness team.

most important member of the phonological awareness team almost twice as often as they designated Title I reading specialists, Title I reading specialists never designated speech-language pathologists as being most important. We conclude from these responses that Title I reading specialists view themselves as having more of a responsibility than speech-language pathologists for helping children develop skills that support reading. However, the fact that many of them designated speech-language pathologists as being the second or third most important professionals on the team suggests that they acknowledge the role the speech-language pathologist can play in helping children develop pre-literacy skills.

Third, we wanted to determine if speech-language pathologists who worked in participating schools differed from those who worked in non-participating schools in terms of how likely they were to be part of phonological awareness instruction in the regular curriculum,

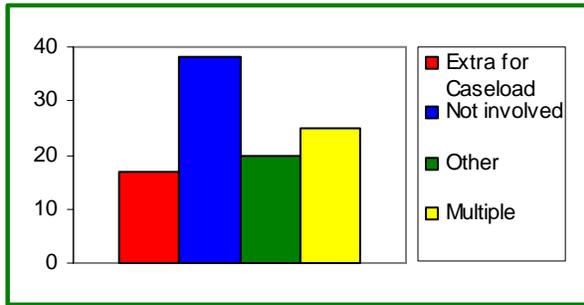


**Figure 5.3.** *Percentage of speech-language pathologists involved in phonological awareness instruction in the regular curriculum.*

how likely they were to provide phonological awareness instruction to children on their caseloads, what types of speech and/or language disorders the children to whom they provided phonological awareness instruction had, and how many minutes per week they spent providing phonological

awareness instruction to children on their caseloads. Speech-language pathologists surveyed showed no significant relationships between employment setting and any survey response. However, it is of concern to us that over half of the speech-language pathologists surveyed reported that they did not participate in phonological awareness instruction in the regular classroom, even in a collaborative role (See figure 5.3). Additionally, one-quarter of the speech-language pathologists surveyed reported that they did not provide phonological awareness

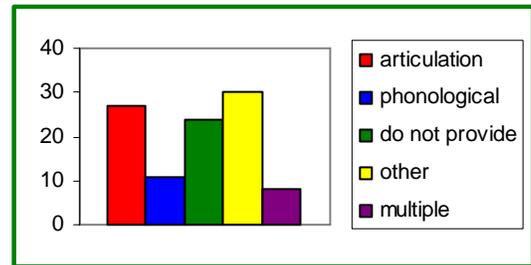
instruction to any children on their caseloads (See figure 5.4). This is particularly disturbing given the research showing that children with speech and language impairments are at significant risk for literacy problems (Chard & Dickson, 1999; Major & Handford Bernhardt, 1998).



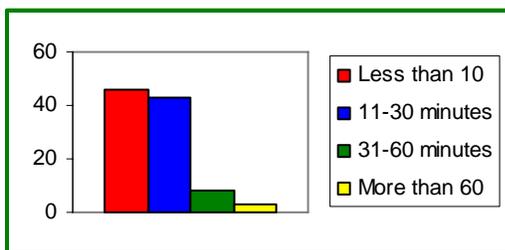
**Figure 5.4.** Ways in which speech-language pathologists reported being involved in phonological awareness instruction.

Speech-language pathologists surveyed were most likely to report providing phonological awareness instruction to children on their caseloads with articulation and phonological disorders (See figure 5.5). Although there is a link between these disorders and reading problems, research suggests that children with

other types of specific language impairment, such as problems with syntax, morphology, and semantics, also are at risk for reading difficulty (Catts, 1997; Menyuk, et al., 1991; Pullen & Justice, 2003). Finally, the majority of speech-language pathologists responding to the survey reported spending 30 minutes or fewer providing phonological awareness instruction to children on their caseloads (See figure 5.6). Given that speech-language pathologists typically



**Figure 5.5.** Diagnostic categories of children to whom speech-language pathologists provided phonological awareness instruction.



**Figure 5.6.** Number of minutes per week speech-language pathologists reported spending in phonological awareness instruction with children on their caseloads.

provide two thirty-minute therapy sessions per week to children with speech and/or language impairments, the time spent in phonological awareness instruction represents 50% of their therapy time.

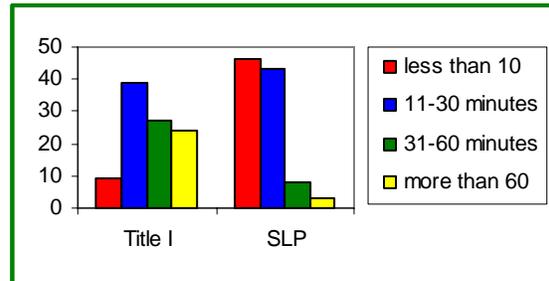
Fourth, we wanted to determine if there was a

relationship between professional category (Title I reading specialist or special education teacher and speech-language pathologist) and the number of minutes per week spent in providing phonological awareness instruction to children at risk for reading failure. Results showed that Title I reading specialists were more likely to report spending 60 minutes or more per week working with at-risk children than were speech-language pathologists. These results are shown in Table 5.2 and in Figure 5.7.

Table 5.2 Minutes per week spent teaching phonological awareness skills to at-risk children.

Variable	<u>Title I or Special Ed Teacher</u>	<u>Title I or Special Ed Teacher</u>	<u>SLP</u>	<u>SLP</u>
	No.	Percentage	No.	Percentage
# of minutes per week in PA instruction				
Less than 10	3	9%	17	46%
11 – 30	13	39%	16	43%
31 – 60	9	27%	3	8%
More than 60	8	24%	1	3%
<b>Total</b>	<b>33</b>	<b>100%</b>	<b>37</b>	<b>100%</b>

Approximately 24% of Title I reading specialists surveyed reported spending more than 60 minutes per week providing phonological awareness instruction to children they teach, whereas only 3% of speech-language pathologists reported spending as much time.

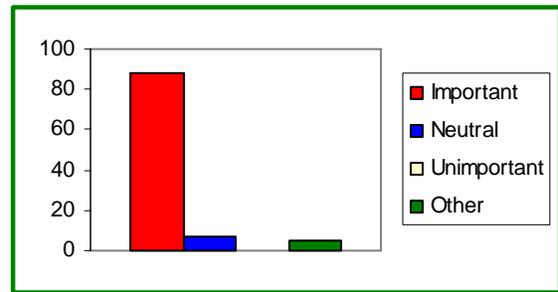


**Figure 5.7.** Number of minutes per week speech-language pathologists and Title I reading specialists reported spending in phonological awareness instruction with children at risk for reading difficulty.

However, we did not ask the respondents how many children were on their caseloads and it may be that Title I reading specialists work with fewer children than do speech-language pathologists. It also should be noted that Title I reading specialists exclusively work with children who are at risk for reading failure. However, since research (Chard & Dickson, 1999; Major & Handford

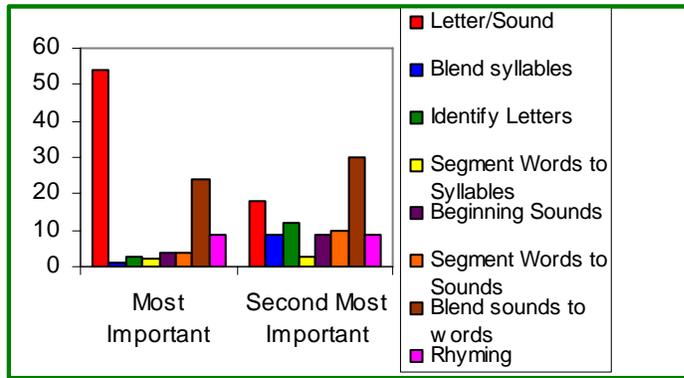
Bernhardt, 1998) shows that many children with speech and language impairments also are at risk for reading problems, we suggest that speech-language pathologists should be encouraged to include phonological awareness instruction in their therapy with children on their caseloads.

Finally, the study yielded some interesting descriptive results. Respondents, regardless of employment setting, overwhelmingly said they felt phonological awareness instruction (non-participating respondents) or the statewide phonological awareness program (participating respondents) to be important in the development of literacy. These results can be seen in figure 5.8.



**Figure 5.8.** Respondents' opinions regarding the importance of the statewide phonological awareness program or phonological awareness in general in promoting literacy.

Respondents felt that letter/sound correspondence and blending phonemes into words were the two most important phonological awareness skills to teach young children, in that order. These results can be seen in figure 5.9.



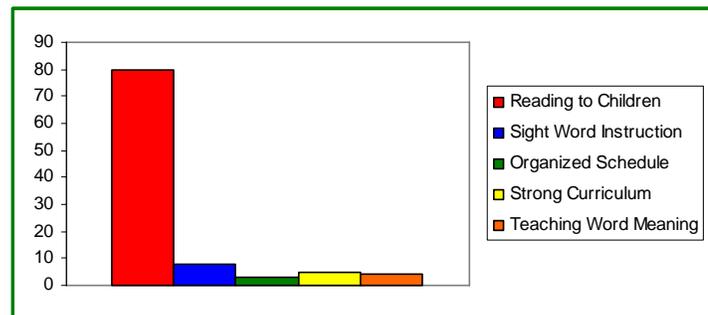
**Figure 5.9.** Phonological awareness skills respondents considered most important to give children a strong foundation for reading.

importance of phonological awareness in giving children the foundations they need to acquire literate language (Blaiklock, 2004; Cassady & Smith, 2004; Justice, et al, 2003) and with research regarding the components of emergent literacy that most strongly predict success in acquiring literate

language. For example, Swank and Catts (1994) found that first grade children's performance

on a task of syllable and phoneme blending differentiated between good and poor readers with 76% accuracy. Although blending is strictly a phonological awareness skill, letter/sound correspondence allows children to combine a phonological awareness skill (recognition of phonemes) with a written or print awareness skill (recognition of orthographic letters). The ability to combine these two emergent literacy skills gives children the prerequisite skills they need to begin to “sound out” words (Blaiklock, 2004).

Survey respondents also indicated they felt that adults’ reading to children was the most important non-phonological awareness activity in promoting literacy (See figure 5.10).



**Figure 5.10.** *Non-phonological awareness activity respondents considered most important to give children a strong foundation for reading.*

Indeed, research has shown that shared storybook reading provides children

with language experiences that are decontextualized, authentic, meaningful, interesting, and motivating. Additionally, these experiences have been shown to support the development of the emergent literacy, including phonological awareness and written awareness, skills that have been shown to be important for reading success (Justice & Pullen, 2003).

### Limitations

There were several limitations to this study. Although we intended to disseminate this survey to all kindergarten, first grade, Title I reading specialists, special education teachers, and speech-language pathologists working in West Virginia Schools, we discovered that email addresses were not available for all of these individuals. Since the survey was distributed electronically, we were only able to distribute the surveys to those individuals for whom we had

email addresses. Therefore, the sample was one of convenience rather than a true random sample. A second limitation to this study was the low response rate. It cannot be assumed that those individuals who chose to respond to our survey would have responded in the same way as individuals who chose not to respond.

### Summary and Conclusions

1. No significant relationships were found between employment setting and survey responses. Responses indicated that all professionals, regardless of whether or not they are involved in the West Virginia Phonemic Awareness Project, were cognizant of the importance of phonological awareness instruction in promoting literacy.
2. Although the majority of respondents in each professional category (classroom teachers, Title I reading specialists or special education teachers, speech-language pathologists) felt that classroom teachers were the most important member of the school's phonological awareness team, Title I reading specialists and speech-language pathologists who did not designate classroom teachers as being most important were more likely to specify their own category as most important than that of the other professional.
3. For speech-language pathologists, there was no relationship between employment category and whether or not they provided phonological awareness instruction to children in regular classrooms and on their caseloads. There also was no relationship between employment category and the number of minutes per week they spent providing phonological awareness instruction to children on their caseloads or on the types of speech and language disorders these children had.

4. Over half of the speech-language pathologists surveyed indicated that they did not provide phonological awareness instruction in the regular classroom and/or collaborate with classroom teachers.
5. Over one quarter of the speech-language pathologists surveyed indicated that they did not provide phonological awareness instruction to children on their caseloads.
6. Respondents overwhelmingly responded that phonological awareness instruction was important in promoting literacy among young children.
7. Respondents rated teaching letter/sound correspondence, blending phonemes into words, and reading to children as being important prerequisites for literacy development.

#### Implications for Future Research

In light of the findings of this study, we suggest that further research be conducted to answer the following questions:

1. What do educational professionals understand to be the role of speech-language pathologists in phonological awareness instruction with young children?
2. What are the barriers to effective collaboration between speech-language pathologists and other professionals in providing children with phonological awareness instruction and how can these barriers be removed?
3. How can speech-language pathologists be most effective in facilitating phonological awareness development in young children in the regular school curriculum?
4. What are the barriers speech-language pathologists face in spending adequate time providing phonological awareness instruction to children with speech and language impairments who are at risk for reading failure and how can these barriers be removed?

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## Appendix A

**Questionnaire for Participating Kindergarten and First Grade (Classroom) Teachers**

1. Which of the following do you think is the most important in preparing children to learn to read?

\_\_\_\_\_ Teaching letter/sound correspondence  
 \_\_\_\_\_ Teaching children to identify letters  
 \_\_\_\_\_ Teaching children to segment words into syllables  
 \_\_\_\_\_ Teaching children to segment words into sounds  
 \_\_\_\_\_ Teaching children to blend sounds into words  
 \_\_\_\_\_ Teaching children to blend syllables into words  
 \_\_\_\_\_ Teaching children to identify beginning sounds of words  
 \_\_\_\_\_ Teaching children rhyming instruction

2. Which of the following do you think is the second most important in preparing children to learn to read?

\_\_\_\_\_ Teaching letter/sound correspondence  
 \_\_\_\_\_ Teaching children to identify letters  
 \_\_\_\_\_ Teaching children to segment words into syllables  
 \_\_\_\_\_ Teaching children to segment words into sounds  
 \_\_\_\_\_ Teaching children to blend sounds into words  
 \_\_\_\_\_ Teaching children to blend syllables into words  
 \_\_\_\_\_ Teaching children to identify beginning sounds of words  
 \_\_\_\_\_ Teaching children rhyming instruction

3. Which of the following do you think is the least important in preparing children to learn to read?

\_\_\_\_\_ Teaching letter/sound correspondence  
 \_\_\_\_\_ Teaching children to identify letters  
 \_\_\_\_\_ Teaching children to segment words into syllables  
 \_\_\_\_\_ Teaching children to segment words into sounds  
 \_\_\_\_\_ Teaching children to blend sounds into words  
 \_\_\_\_\_ Teaching children to blend syllables into words  
 \_\_\_\_\_ Teaching children to identify beginning sounds of words  
 \_\_\_\_\_ Teaching children rhyming instruction

4. From this list, which of the following variables do you think is the most important when preparing children to learn to read?

\_\_\_\_\_ Reading to children  
 \_\_\_\_\_ Cite word instruction  
 \_\_\_\_\_ Organized schedule

- \_\_\_\_\_ Strong curriculum
- \_\_\_\_\_ Teaching meaning of words

5. From this list, which of the following variables do you think is the second most important when preparing children to learn to read?

- \_\_\_\_\_ Reading to children
- \_\_\_\_\_ Cite word instruction
- \_\_\_\_\_ Organized schedule
- \_\_\_\_\_ Strong curriculum
- \_\_\_\_\_ Teaching meaning of words

6. From this list, which of the following variables do you think is the least important when preparing children to learn to read?

- \_\_\_\_\_ Reading to children
- \_\_\_\_\_ Cite word instruction
- \_\_\_\_\_ Organized schedule
- \_\_\_\_\_ Strong curriculum
- \_\_\_\_\_ Teaching meaning of words

7. How long has your school been involved in the statewide phonological awareness program?

- \_\_\_\_\_ Less than 1 year
- \_\_\_\_\_ 1 – 2 years
- \_\_\_\_\_ 2 – 3 years
- \_\_\_\_\_ Over 3 years
- \_\_\_\_\_ Do not know

8. How important do you think this program has been in improving literacy outcomes?

- \_\_\_\_\_ Important
- \_\_\_\_\_ Neutral
- \_\_\_\_\_ Unimportant
- \_\_\_\_\_ Other (Please describe).\_\_\_\_\_

9. Approximately how many minutes per day (on average) do you spend in phonological awareness instruction in your classroom?

- \_\_\_\_\_ Less than 10 minutes
- \_\_\_\_\_ 11-30 minutes
- \_\_\_\_\_ 31-60 minutes
- \_\_\_\_\_ More than 60 minutes

10. If only one professional could be provide phonological awareness instruction, which one should?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

11. If there could be two members on the phonological awareness team, who would be second most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

12. If there could be three members on the phonological awareness team, who would be third most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

13. If there could be four members on the phonological awareness team, who would be fourth most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist

- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

14. Which of the following professionals would you be least likely to include on a phonological awareness team?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

15. Which of the following do you think is most important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

16. Which of the following do you think is second important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

17. Which of the following do you think is the least important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement

\_\_\_\_\_ Instruction from other professionals  
\_\_\_\_\_ Other (please list) \_\_\_\_\_

18. Please check your current position.

\_\_\_\_\_ Classroom teacher  
\_\_\_\_\_ Speech-Language Pathologist  
\_\_\_\_\_ Psychologist  
\_\_\_\_\_ School Principal  
\_\_\_\_\_ School Superintendent  
\_\_\_\_\_ Special Education Director  
\_\_\_\_\_ Reading Specialist  
\_\_\_\_\_ School Nurse  
\_\_\_\_\_ Other (Please specify) \_\_\_\_\_

19. How many years have you been working in public education?

\_\_\_\_\_ Less than 5 years  
\_\_\_\_\_ 6 – 10 years  
\_\_\_\_\_ 11 – 15 years  
\_\_\_\_\_ 16 – 20 years  
\_\_\_\_\_ Over 20 years

20. How many years have you been working in your current position?

\_\_\_\_\_ Less than 5 years  
\_\_\_\_\_ 6 – 10 years  
\_\_\_\_\_ 11 – 15 years  
\_\_\_\_\_ 16 – 20 years  
\_\_\_\_\_ Over 20 years

21. What are your areas of certification? (Please check all that apply)

\_\_\_\_\_ Reading Endorsement  
\_\_\_\_\_ English as a Second Language  
\_\_\_\_\_ Gifted Education  
\_\_\_\_\_ Special Education  
\_\_\_\_\_ Elementary Education  
\_\_\_\_\_ Speech-Language Therapy  
\_\_\_\_\_ School Administration  
\_\_\_\_\_ Other: Please List \_\_\_\_\_

22. Gender: Please check \_\_\_\_\_ Male \_\_\_\_\_ Female

23. Age: Please check appropriate range

- \_\_\_\_\_ Under 22
- \_\_\_\_\_ 22 – 30
- \_\_\_\_\_ 31 – 40
- \_\_\_\_\_ 41 – 50
- \_\_\_\_\_ 51 – 60
- \_\_\_\_\_ over 60

### Questionnaire for Non-Participating Kindergarten and First Grade (Classroom) Teachers

1. Which of the following do you think is the most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

2. Which of the following do you think is the second most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

3. Which of the following do you think is the least important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

4. From this list, which of the following variables do you think is the most important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

5. From this list, which of the following variables do you think is the second most important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

6. From this list, which of the following variables do you think is the least important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

7. How important do you think phonological awareness instruction is in improving literacy outcomes?

Important  
 Neutral  
 Unimportant  
 Other (Please describe) \_\_\_\_\_

8. Approximately how many minutes per day (on average) do you spend in phonological awareness instruction in your classroom?

Less than 10 minutes  
 11-30 minutes  
 31-60 minutes  
 More than 60 minutes

9. If only one professional could be provide phonological awareness instruction, which one should?

Social Worker  
 Psychologist  
 Classroom Teacher  
 Speech-Language Pathologist  
 Title I Reading Teacher  
 School Principal  
 Learning Disabilities' Teacher  
 Gifted Education Teacher

\_\_\_\_\_ Other (Please specify) \_\_\_\_\_

10. If there could be two members on the phonological awareness team, who would be second most important?

- \_\_\_\_\_ Social Worker
- \_\_\_\_\_ Psychologist
- \_\_\_\_\_ Classroom Teacher
- \_\_\_\_\_ Speech-Language Pathologist
- \_\_\_\_\_ Title I Reading Teacher
- \_\_\_\_\_ School Principal
- \_\_\_\_\_ Learning Disabilities' Teacher
- \_\_\_\_\_ Gifted Education Teacher
- \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

11. If there could be three members on the phonological awareness team, who would be third most important?

- \_\_\_\_\_ Social Worker
- \_\_\_\_\_ Psychologist
- \_\_\_\_\_ Classroom Teacher
- \_\_\_\_\_ Speech-Language Pathologist
- \_\_\_\_\_ Title I Reading Teacher
- \_\_\_\_\_ School Principal
- \_\_\_\_\_ Learning Disabilities' Teacher
- \_\_\_\_\_ Gifted Education Teacher
- \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

12. If there could be four members on the phonological awareness team, who would be fourth most important?

- \_\_\_\_\_ Social Worker
- \_\_\_\_\_ Psychologist
- \_\_\_\_\_ Classroom Teacher
- \_\_\_\_\_ Speech-Language Pathologist
- \_\_\_\_\_ Title I Reading Teacher
- \_\_\_\_\_ School Principal
- \_\_\_\_\_ Learning Disabilities' Teacher
- \_\_\_\_\_ Gifted Education Teacher
- \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

13. Which of the following professionals would you be least likely to include on a phonological awareness team?

- \_\_\_\_\_ Social Worker
- \_\_\_\_\_ Psychologist

- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

14. Which of the following do you think is most important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

15. Which of the following do you think is second important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

16. Which of the following do you think is the least important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

17. Please check your current position.

- Classroom teacher
- Speech-Language Pathologist
- Psychologist
- School Principal
- School Superintendent
- Special Education Director

- Reading Specialist
- School Nurse
- Other (Please specify)

18. How many years have you been working in public education?

- Less than 5 years
- 6 – 10 years
- 11 – 15 years
- 16 – 20 years
- Over 20 years

19. How many years have you been working in your current position?

- Less than 5 years
- 6 – 10 years
- 11 – 15 years
- 16 – 20 years
- Over 20 years

20. What are your areas of certification? (Please check all that apply)

- Reading Endorsement
- English as a Second Language
- Gifted Education
- Special Education
- Elementary Education
- Speech-Language Therapy
- School Administration
- Other: Please List \_\_\_\_\_

21. Gender: Please check  Male  Female

22. Age: Please check appropriate range

- Under 22
- 22 – 30
- 31 – 40
- 41 – 50
- 51 – 60
- Over 60

### Questionnaire for Participating Title I Reading Specialists and Special Educators

1. Which of the following do you think is the most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

2. Which of the following do you think is the second most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

3. Which of the following do you think is the least important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

4. From this list, which of the following variables do you think is the most important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum

\_\_\_\_\_ Teaching meaning of words

5. From this list, which of the following variables do you think is the second most important when preparing children to learn to read?

\_\_\_\_\_ Reading to children  
\_\_\_\_\_ Cite word instruction  
\_\_\_\_\_ Organized schedule  
\_\_\_\_\_ Strong curriculum  
\_\_\_\_\_ Teaching meaning of words

6. From this list, which of the following variables do you think is the least important when preparing children to learn to read?

\_\_\_\_\_ Reading to children  
\_\_\_\_\_ Cite word instruction  
\_\_\_\_\_ Organized schedule  
\_\_\_\_\_ Strong curriculum  
\_\_\_\_\_ Teaching meaning of words

7. How long has your school be involved in the statewide phonological awareness program?

\_\_\_\_\_ Less than 1 year  
\_\_\_\_\_ 1 – 2 years  
\_\_\_\_\_ 2 – 3 years  
\_\_\_\_\_ Over 3 years  
\_\_\_\_\_ Do not know

8. How important do you think this program has been in improving literacy outcomes?

\_\_\_\_\_ Important  
\_\_\_\_\_ Neutral  
\_\_\_\_\_ Unimportant  
\_\_\_\_\_ Other (Please describe) \_\_\_\_\_

9. Are you directly involved in general kindergarten or first grade phonological awareness instruction?

\_\_\_\_\_ Yes  
\_\_\_\_\_ No

10. If yes, what is the nature of your involvement? (Please check all that apply).

\_\_\_\_\_ I conduct phonological awareness instruction with all kindergarten children.  
\_\_\_\_\_ I conduct phonological awareness instruction with all first grade children.

- I provide extra phonological awareness instruction to children enrolled in special education or Title I services.
- The kindergarten teachers and I plan phonological awareness instruction together.
- The first grade teachers and I plan phonological awareness instruction together.
- I am not involved.
- Other involvement (Please specify). \_\_\_\_\_

11. Approximately how many minutes per week do you spend in phonological awareness instruction with each child you teach?

- Less than 10 minutes
- 11-30 minutes
- 31-60 minutes
- More than 60 minutes

12. If only one professional could provide phonological awareness instruction, which one should?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

13. If there could be two members on the phonological awareness team, who would be second most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

14. If there could be three members on the phonological awareness team, who would be third most important?

- Social Worker

- \_\_\_\_\_ Psychologist
- \_\_\_\_\_ Classroom Teacher
- \_\_\_\_\_ Speech-Language Pathologist
- \_\_\_\_\_ Title I Reading Teacher
- \_\_\_\_\_ School Principal
- \_\_\_\_\_ Learning Disabilities' Teacher
- \_\_\_\_\_ Gifted Education Teacher
- \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

15. If there could be four members on the phonological awareness team, who would be fourth most important?

- \_\_\_\_\_ Social Worker
- \_\_\_\_\_ Psychologist
- \_\_\_\_\_ Classroom Teacher
- \_\_\_\_\_ Speech-Language Pathologist
- \_\_\_\_\_ Title I Reading Teacher
- \_\_\_\_\_ School Principal
- \_\_\_\_\_ Learning Disabilities' Teacher
- \_\_\_\_\_ Gifted Education Teacher
- \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

16. Which of the following professionals would you be least likely to include on a phonological awareness team?

- \_\_\_\_\_ Social Worker
- \_\_\_\_\_ Psychologist
- \_\_\_\_\_ Classroom Teacher
- \_\_\_\_\_ Speech-Language Pathologist
- \_\_\_\_\_ Title I Reading Teacher
- \_\_\_\_\_ School Principal
- \_\_\_\_\_ Learning Disabilities' Teacher
- \_\_\_\_\_ Gifted Education Teacher
- \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

17. Which of the following do you think is most important in helping children learn phonological awareness?

- \_\_\_\_\_ Instruction from classroom teachers
- \_\_\_\_\_ Involvement of speech-language pathologists
- \_\_\_\_\_ Parental involvement
- \_\_\_\_\_ Principal involvement
- \_\_\_\_\_ Instruction from other professionals
- \_\_\_\_\_ Other (please list) \_\_\_\_\_

18. Which of the following do you think is second important in helping children learn phonological awareness?

- Instruction from classroom teachers  
 Involvement of speech-language pathologists  
 Parental involvement  
 Principal involvement  
 Instruction from other professionals  
 Other (please list) \_\_\_\_\_

19. Which of the following do you think is the least important in helping children learn phonological awareness?

- Instruction from classroom teachers  
 Involvement of speech-language pathologists  
 Parental involvement  
 Principal involvement  
 Instruction from other professionals  
 Other (please list) \_\_\_\_\_

20. Please check your current position.

- Classroom teacher  
 Speech-Language Pathologist  
 Psychologist  
 School Principal  
 School Superintendent  
 Special Education Director  
 Reading Specialist  
 School Nurse  
 Other (Please specify) \_\_\_\_\_

21. How many years have you been working in public education?

- Less than 5 years  
 6 – 10 years  
 11 – 15 years  
 16 – 20 years  
 Over 20 years

22. How many years have you been working in your current position?

- Less than 5 years  
 6 – 10 years  
 11 – 15 years  
 16 – 20 years

\_\_\_\_\_ Over 20 years

23. What are your areas of certification? (Please check all that apply)

- \_\_\_\_\_ Reading Endorsement
- \_\_\_\_\_ English as a Second Language
- \_\_\_\_\_ Gifted Education
- \_\_\_\_\_ Special Education
- \_\_\_\_\_ Elementary Education
- \_\_\_\_\_ Speech-Language Therapy
- \_\_\_\_\_ School Administration
- \_\_\_\_\_ Other: Please List \_\_\_\_\_

24. Gender: Please check \_\_\_\_\_ Male \_\_\_\_\_ Female

25. Age: Please check appropriate range

- \_\_\_\_\_ Under 22
- \_\_\_\_\_ 22 – 30
- \_\_\_\_\_ 31 – 40
- \_\_\_\_\_ 41 – 50
- \_\_\_\_\_ 51 – 60
- \_\_\_\_\_ Over 60

### Questionnaire for Non-Participating Title I Reading Specialists and Special Educators

1. Which of the following do you think is the most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

2. Which of the following do you think is the second most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

3. Which of the following do you think is the least important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

4. From this list, which of the following variables do you think is the most important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

5. From this list, which of the following variables do you think is the second most important when preparing children to learn to read?

- Reading to children
- Cite word instruction
- Organized schedule
- Strong curriculum
- Teaching meaning of words

6. From this list, which of the following variables do you think is the least important when preparing children to learn to read?

- Reading to children
- Cite word instruction
- Organized schedule
- Strong curriculum
- Teaching meaning of words

7. Are you directly involved in general kindergarten or first grade phonological awareness instruction?

- Yes                       No

8. If yes, what is the nature of your involvement? (Please check all that apply).

- I conduct phonological awareness instruction with all kindergarten children.
- I conduct phonological awareness instruction with all first grade children.
- I provide extra phonological awareness instruction to children enrolled in special education or Title I services.
- The kindergarten teachers and I plan phonological awareness instruction together.
- The first grade teachers and I plan phonological awareness instruction together.
- I am not involved.
- Other involvement (Please specify). \_\_\_\_\_

9. How important do you think phonological awareness instruction is in improving children's literacy outcomes?

- Important
- Neutral
- Unimportant
- Other (Please describe). \_\_\_\_\_

10. Approximately how many minutes per week do you spend in phonological awareness instruction with each child you teach?

- Less than 10 minutes
- 11-30 minutes
- 31-60 minutes
- More than 60 minutes

11. If only one professional could be provide phonological awareness instruction, which one should?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

12. If there could be two members on the phonological awareness team, who would be second most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

13. If there could be three members on the phonological awareness team, who would be third most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

14. If there could be four members on the phonological awareness team, who would be

fourth most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

15. Which of the following professionals would you be least likely to include on a phonological awareness team?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

16. Which of the following do you think is most important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

17. Which of the following do you think is second important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

18. Which of the following do you think is the least important in helping children learn phonological awareness?

- Instruction from classroom teachers  
 Involvement of speech-language pathologists  
 Parental involvement  
 Principal involvement  
 Instruction from other professionals  
 Other (please list) \_\_\_\_\_

19. Please check your current position.

- Classroom teacher  
 Speech-Language Pathologist  
 Psychologist  
 School Principal  
 School Superintendent  
 Special Education Director  
 Reading Specialist  
 School Nurse  
 Other (Please specify) \_\_\_\_\_

20. How many years have you been working in public education?

- Less than 5 years  
 6 – 10 years  
 11 – 15 years  
 16 – 20 years  
 Over 20 years

21. How many years have you been working in your current position?

- Less than 5 years  
 6 – 10 years  
 11 – 15 years  
 16 – 20 years  
 Over 20 years

22. What are your areas of certification? (Please check all that apply)

- Reading Endorsement  
 English as a Second Language  
 Gifted Education  
 Special Education  
 Elementary Education  
 Speech-Language Therapy

\_\_\_\_\_ School Administration  
\_\_\_\_\_ Other: Please List \_\_\_\_\_

23. Gender: Please check \_\_\_\_\_ Male \_\_\_\_\_ Female

24. Age: Please check appropriate range

\_\_\_\_\_ Under 22  
\_\_\_\_\_ 22 – 30  
\_\_\_\_\_ 31 – 40  
\_\_\_\_\_ 41 – 50  
\_\_\_\_\_ 51 – 60  
\_\_\_\_\_ Over 60

### Questionnaire for Participating Speech-Language Pathologists

1. Which of the following do you think is the most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

2. Which of the following do you think is the second most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

3. Which of the following do you think is the least important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

4. From this list, which of the following variables do you think is the most important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

5. From this list, which of the following variables do you think is the second most important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

6. From this list, which of the following variables do you think is the least important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

7. How long has your school been involved in the statewide phonological awareness program?

Less than 1 year  
 1 – 2 years  
 2 – 3 years  
 Over 3 years  
 Do not know

8. How important do you think this program has been in improving literacy outcomes?

Important  
 Neutral  
 Unimportant  
 Other (Please describe) \_\_\_\_\_

9. Are you directly involved in the school's phonological awareness program?

Yes                       No

10. If yes, what is the nature of your involvement? (Please check all that apply).

I conduct phonological awareness instruction with all kindergarten children.  
 I conduct phonological awareness instruction with all first grade children.  
 I provide extra phonological awareness instruction to children on my caseload.  
 The kindergarten teachers and I plan phonological awareness instruction together.  
 The first grade teachers and I plan phonological awareness instruction together.

- \_\_\_\_\_ I am not involved.  
 \_\_\_\_\_ Other involvement (Please specify). \_\_\_\_\_

11. If you provide phonological awareness instruction to children on your caseload, what is the primary diagnosis of children to whom you provide the service? (please check all that apply).

- \_\_\_\_\_ articulation disorder  
 \_\_\_\_\_ syntactic/morphological language disorder  
 \_\_\_\_\_ semantic language disorder  
 \_\_\_\_\_ pragmatic language disorder  
 \_\_\_\_\_ phonological language disorder  
 \_\_\_\_\_ Other (please specify). \_\_\_\_\_

12. If you do not provide phonological awareness instruction for children on your caseload, what are the reasons (Please check all that apply)

- \_\_\_\_\_ I do provide phonological awareness instruction to children on my caseload.  
 \_\_\_\_\_ Not enough time.  
 \_\_\_\_\_ Other professionals work on phonological awareness skills.  
 \_\_\_\_\_ No children with phonological awareness difficulties on my caseload  
 \_\_\_\_\_ Other (please describe)

13. Approximately how many minutes per week do you spend in phonological awareness instruction with each child on your caseload?

- \_\_\_\_\_ Less than 10 minutes  
 \_\_\_\_\_ 11-30minutes  
 \_\_\_\_\_ 31-60 minutes  
 \_\_\_\_\_ More than 60 minutes

14. If only one professional could be provide phonological awareness instruction, which one should?

- \_\_\_\_\_ Social Worker  
 \_\_\_\_\_ Psychologist  
 \_\_\_\_\_ Classroom Teacher  
 \_\_\_\_\_ Speech-Language Pathologist  
 \_\_\_\_\_ Title I Reading Teacher  
 \_\_\_\_\_ School Principal  
 \_\_\_\_\_ Learning Disabilities' Teacher  
 \_\_\_\_\_ Gifted Education Teacher  
 \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

15. If there could be two members on the phonological awareness team, who would be second most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

16. If there could be three members on the phonological awareness team, who would be third most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

17. If there could be four members on the phonological awareness team, who would be fourth most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

18. Which of the following professionals would you be least likely to include on a phonological awareness team?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher

\_\_\_\_\_ Gifted Education Teacher  
\_\_\_\_\_ Other (Please specify) \_\_\_\_\_

19. Which of the following do you think is most important in helping children learn phonological awareness?

\_\_\_\_\_ Instruction from classroom teachers  
\_\_\_\_\_ Involvement of speech-language pathologists  
\_\_\_\_\_ Parental involvement  
\_\_\_\_\_ Principal involvement  
\_\_\_\_\_ Instruction from other professionals  
\_\_\_\_\_ Other (please list) \_\_\_\_\_

20. Which of the following do you think is second important in helping children learn phonological awareness?

\_\_\_\_\_ Instruction from classroom teachers  
\_\_\_\_\_ Involvement of speech-language pathologists  
\_\_\_\_\_ Parental involvement  
\_\_\_\_\_ Principal involvement  
\_\_\_\_\_ Instruction from other professionals  
\_\_\_\_\_ Other (please list) \_\_\_\_\_

21. Which of the following do you think is the least important in helping children learn phonological awareness?

\_\_\_\_\_ Instruction from classroom teachers  
\_\_\_\_\_ Involvement of speech-language pathologists  
\_\_\_\_\_ Parental involvement  
\_\_\_\_\_ Principal involvement  
\_\_\_\_\_ Instruction from other professionals  
\_\_\_\_\_ Other (please list) \_\_\_\_\_

22. Please check your current position.

\_\_\_\_\_ Classroom teacher  
\_\_\_\_\_ Speech-Language Pathologist  
\_\_\_\_\_ Psychologist  
\_\_\_\_\_ School Principal  
\_\_\_\_\_ School Superintendent  
\_\_\_\_\_ Special Education Director  
\_\_\_\_\_ Reading Specialist  
\_\_\_\_\_ School Nurse  
\_\_\_\_\_ Other (Please specify)

23. How many years have you been working in public education?

- Less than 5 years
- 6 – 10 years
- 11 – 15 years
- 16 – 20 years
- Over 20 years

24. How many years have you been working in your current position?

- Less than 5 years
- 6 – 10 years
- 11 – 15 years
- 16 – 20 years
- Over 20 years

25. What are your areas of certification? (Please check all that apply)

- Reading Endorsement
- English as a Second Language
- Gifted Education
- Special Education
- Elementary Education
- Speech-Language Therapy
- School Administration
- Other: Please List \_\_\_\_\_

26. Gender: Please check  Male  Female

27. Age: Please check appropriate range

- Under 22
- 22 – 30
- 31 – 40
- 41 – 50
- 51 – 60
- Over 60

### Questionnaire for Non-Participating Speech-Language Pathologists

1. Which of the following do you think is the most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

2. Which of the following do you think is the second most important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

3. Which of the following do you think is the least important in preparing children to learn to read?

Teaching letter/sound correspondence  
 Teaching children to identify letters  
 Teaching children to segment words into syllables  
 Teaching children to segment words into sounds  
 Teaching children to blend sounds into words  
 Teaching children to blend syllables into words  
 Teaching children to identify beginning sounds of words  
 Teaching children rhyming instruction

4. From this list, which of the following variables do you think is the most important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

5. From this list, which of the following variables do you think is the second most important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

6. From this list, which of the following variables do you think is the least important when preparing children to learn to read?

Reading to children  
 Cite word instruction  
 Organized schedule  
 Strong curriculum  
 Teaching meaning of words

7. Are you directly involved in general kindergarten or first grade phonological awareness instruction?

Yes                       No

8. If yes, what is the nature of your involvement? (Please check all that apply).

I conduct phonological awareness instruction with all kindergarten children.  
 I conduct phonological awareness instruction with all first grade children.  
 I provide extra phonological awareness instruction to children enrolled in special education or Title I services.  
 The kindergarten teachers and I plan phonological awareness instruction together.  
 The first grade teachers and I plan phonological awareness instruction together.  
 I am not involved.  
 Other involvement (Please specify). \_\_\_\_\_

9. How important do you think phonological awareness instruction is in improving literacy outcomes?

Important  
 Neutral  
 Unimportant  
 Other (Please describe). \_\_\_\_\_

10. If you provide phonological awareness instruction to children on your caseload, what is the primary diagnosis of children to whom you provide the service? (please check all

that apply).

- articulation disorder
- syntactic/morphological language disorder
- semantic language disorder
- pragmatic language disorder
- phonological language disorder
- Other (please specify). \_\_\_\_\_

11. If you do not provide phonological awareness instruction to children on your caseload, what are the reasons? (Please check all that apply)

- I do provide phonological awareness instruction.
- No enough time
- Other professionals work on phonological awareness skills
- No children with phonological awareness difficulties on my caseload
- Other (please describe) \_\_\_\_\_

12. Approximately how many minutes per week do you spend in phonological awareness instruction with each child on your caseload?

- Less than 10 minutes
- 11-30 minutes
- 31-60 minutes
- More than 60 minutes

13. If only one professional could be provide phonological awareness instruction, which one should?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

14. If there could be two members on the phonological awareness team, who would be second most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist

- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

15. If there could be three members on the phonological awareness team, who would be third most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

16. If there could be four members on the phonological awareness team, who would be fourth most important?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

17. Which of the following professionals would you be least likely to include on a phonological awareness team?

- Social Worker
- Psychologist
- Classroom Teacher
- Speech-Language Pathologist
- Title I Reading Teacher
- School Principal
- Learning Disabilities' Teacher
- Gifted Education Teacher
- Other (Please specify) \_\_\_\_\_

18. Which of the following do you think is most important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

19. Which of the following do you think is second important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

20. Which of the following do you think is the least important in helping children learn phonological awareness?

- Instruction from classroom teachers
- Involvement of speech-language pathologists
- Parental involvement
- Principal involvement
- Instruction from other professionals
- Other (please list) \_\_\_\_\_

21. Please check your current position.

- Classroom teacher
- Speech-Language Pathologist
- Psychologist
- School Principal
- School Superintendent
- Special Education Director
- Reading Specialist
- School Nurse
- Other (Please specify) \_\_\_\_\_

22. How many years have you been working in public education?

- Less than 5 years
- 6 – 10 years

- 11 – 15 years
- 16 – 20 years
- Over 20 years

23. How many years have you been working in your current position?

- Less than 5 years
- 6 – 10 years
- 11 – 15 years
- 16 – 20 years
- Over 20 years

24. What are your areas of certification? (Please check all that apply)

- Reading Endorsement
- English as a Second Language
- Gifted Education
- Special Education
- Elementary Education
- Speech-Language Therapy
- School Administration
- Other: Please List \_\_\_\_\_

25. Gender: Please check  Male  Female

26. Age: Please check appropriate range

- Under 22
- 22 – 30
- 31 – 40
- 41 – 50
- 51 – 60
- Over 60

Appendix B

Thesis Invitation

Dear Educator:

My name is Melinda Daniel and I am a graduate student at Marshall University. As part of the requirements for my Master's degree, I am completing a thesis investigating the relationship between children's phonological awareness skills and their success in learning to read. As part of my thesis requirements, I am asking professional educators (classroom teachers, Title I and special education teachers, and speech-language pathologists) in West Virginia to complete a short survey about their experiences in teaching phonological awareness skills to young children.

I would very much appreciate your participating in the study. Completing the survey will take no more than fifteen minutes. Your participation is important because you are in a unique position to give us unbiased feedback regarding your perceptions of the effectiveness of phonological awareness instruction. However, as with all research, your participation is voluntary. There is no penalty if you choose not to participate and you may choose to withdraw from the study at any time.

Please be aware that the surveys are being distributed electronically using the Enhanced version of *Advanced Survey*. If you choose to participate in the survey, click on this link (INSERT LINK HERE) and you will be directed to the survey. When you complete the survey and hit the "submit" link, the results will be sent to me without any identifying participant information. In no way will your survey be able to be identified as having come from you. Details about *Advanced Survey* are available at <http://www.advancedsurvey.com/>.

If you have questions or would like results of the study upon its completion, please contact either me at [daniel55@marshall.edu](mailto:daniel55@marshall.edu) or my faculty advisor, Dr. Mary E. Reynolds at [reynoldm@marshall.edu](mailto:reynoldm@marshall.edu). Additionally, if you have questions about your rights as a research participant you may contact Dr. Stephen Cooper, IRB#2 Chair, at 304-696-4303.

Thank you for completing the survey!

Melinda Daniel, B.S.  
Graduate Student  
Marshall University

## Curriculum Vitae

12032 Pleasant Valley Rd.  
Chillicothe, OH 45601

Phone 740-649-3858  
E-mail danielm\_j@yahoo.com

# Melinda Daniel

## Objective

My goal is to obtain my Master's degree in Communication Disorders. I hope to find a job in which I can continue to grow as a therapist and as a person.

## Education

[ 08/04 – 05/06 ] Marshall University Huntington, WV

### Master of Science/Communication Disorders

- Current GPA 3.36.
- Nominated for the Robert Olson Graduate Assistantship Award
- Dean's List Fall 2005.
- Chancellor's List Fall 2005.

[ 08/00 – 05/04 ] Miami University Oxford, OH

### Bachelor of Science/Speech Pathology and Audiology

- Graduated with a 3.26 GPA.
- Dean's List Fall 2003.

[ 08/96 – 05/00 ] Waverly High School Waverly, OH

### Diploma with Honors

- Graduated with honors in the advanced track.

## Professional experience

[ 02/06 – current ] Sybene Head Start Ironton, OH

### Speech Pathology Graduate Clinician

- I experienced treatment of a 4-year-old female who has a mild to moderate bilateral sensorineural hearing loss. I was able to work with her on an individual basis and in a group setting in her classroom.
- I filled out necessary paperwork, planned therapy accordingly, and attended meetings regarding her progress.

[ 08/05 – 12/05 ] Veterans Affairs Medical Center Huntington, WV

### Speech Pathology Graduate Clinician

- I assumed supervisors' caseload and all responsibilities included.
- I evaluated and treated inpatients and outpatients.
- I evaluated and treated a variety of disorders including Parkinson's Disease, right and left Cerebrovascular Accidents, Aphasia, Dysphagia, Laryngectomy patients, Voice Disorders, Dysarthria, and multiple medical conditions.
- I gained familiarity and a comfort level with Vital Stim, Endoscopic evaluations, Modified Barium Swallowing

Evaluations, E-Stim, Thermal-Tactile Stimulation, several Augmentative and Alternative Communication devices, and various tools and instruments used for assessment and treatment.

[ 05/05 – 08/05 ] Pike Community Hospital Waverly, OH

**Speech Pathology Graduate Clinician**

- I assumed supervisors' caseload and all responsibilities included.
- I evaluated and treated clients from Early Intervention services, Mental Retardation & Developmental Delay services, inpatients, and patients who receive home health services.
- I evaluated and treated a variety of disorders including Autism Spectrum Disorders, Auditory Processing Disorders, Apraxia, Language Delay, Fetal Alcohol Syndrome, Cystic Fibrosis, Sensory Disorders, Cerebral Palsy, Dysphagia and other swallowing disorders.
- I am comfortable with co-treatment with other professionals including occupational and physical therapists.
- I gained familiarity and a comfort level with multiple tools and instruments used for assessment and treatment, and Modified Barium Swallows from infants to geriatric patients.

[ 08/04 – 05/06 ] Marshall University Speech & Hearing Huntington, WV

**Speech Pathology Graduate Clinician**

- I assumed the responsibility for 2 – 3 clients each semester.
- I gained experience in evaluating clients with Fluency disorders, Language delays, articulation impairments, phonological errors, Aphasia, and feeding difficulties.
- I gained experience in treating clients with Down syndrome, dyslexia, auditory processing disorders, articulation impairments, language delays, phonological errors, disfluencies, aphasia, and pragmatic difficulties with toddlers to geriatric clients.
- I gained familiarity and a comfort level with multiple tools and instruments used for assessment and treatment through multiple age ranges.

[ 01/04 – 05/04 ] Madison Elementary School Hamilton, OH

**Speech Pathology Student Teacher**

- I assumed supervisors' caseload and all responsibilities included.
- I evaluated and treated students from Kindergarten to 9<sup>th</sup> grade.
- I evaluated and treated a variety of disorders and delays including fluency disorders, articulation impairments, language delays, Apraxia, Fetal Alcohol Syndrome, phonological errors, pragmatic issues, Autism Spectrum Disorders, and behavioral disorders.
- I gained familiarity and a comfort level with multiple tools and instruments used for assessment and treatment through multiple age ranges.

[ 08/02 – 12/03 ] Miami University Speech & Hearing Oxford, OH  
**Speech Pathology Student Clinician**

- I assumed supervisors' caseload and all responsibilities included.
- I evaluated and treated patients across a range of ages.
- I treated a variety of disorders and delays including fluency disorders, articulation impairments, phonological errors, language delays, pragmatic issues, Velocardiofacial Syndrome, Apraxia, and English as a Second Language.

### Work Experience

[ 08/04 - current ] Graduate Research Assistant Huntington, WV  
**Graduate Research Assistant**

- I aid in completing various research tasks with Dr. Mary E. Reynolds, Professor, at Marshall University.
- I work 10 hours/week completing research, collecting data, typing and analyzing information, and presenting at various conferences.
- I assist in completing tasks for Graduate Admissions for incoming graduate students.

[ Seasonal ] Goody's Family Clothing Chillicothe, OH  
**Sales Associate**

- I worked at Goody's Family Clothing during the summers of 2001, 2002, and 2004 and during Christmas break of 2001 and 2002.
- I was able to display merchandise, use the computers and registers effectively, assist customers and sales associates, and assist managers with finances.

[ 01/01 – 12/03 ] Miami University Speech & Hearing Clinic Oxford, OH  
**Student Worker**

- I communicated with clients via face to face and telephone contact in order to make appointments and answer questions.
- I assisted professors with power point presentations, presentations for conferences, information for classes, and multiple typing tasks.
- I assisted the clinic director with infection control procedures, making appointments for therapy and evaluations, and assisting clients and families with needed information.
- I entered patient information for billing purposes and became familiar with multiple Microsoft programs including Word, Excel, PowerPoint, and Outlook.

### Additional professional activities

National Conference Presentation

- Reynolds, M.E., Fish, M., Lewis, M., & Daniel, M. (2005, November). *Language in low SES Appalachian children: Kindergarten to middle childhood*. Poster session presented at the American Speech-Language-Hearing Association Convention, San Diego, CA.

## State Conferences

- Poster session presentation at the West Virginia Speech-Language-Hearing Association Convention, Charleston, WV. March 2006.
- Reynolds, M.E., Fish, M., Lewis, M., & Daniel, M. (2005, April). *A comparison of knowledge-dependent and processing-dependent measures in evaluation the language skills of children from rural Appalachia.* Poster session presented at the West Virginia Speech-Language-Hearing Association Convention, Morgantown, WV.
- Reynolds, M.E., Lewis, M., Daniel, M., & Frank, S.T. (2005, April). *Is the level of a mother's education related to her children's language and working memory skills?* Poster session presented at the West Virginia Speech-Language-Hearing Association Convention, Morgantown, WV.

## Thesis

- Daniel, M. *Phonological awareness instruction: Opinions and practices of educators and speech-language pathologists in West Virginia.* Thesis currently in progress.

**Professional memberships**

National Student Speech, Language, and Hearing Association 2003-2006

**Volunteer experience**

Pike Community Hospital May – July 2003

**References**

Available Upon Request.