ABSTRACT

The pre-kindergarten program years of a child’s life represent a period of critical development of the emergent literacy skills that are necessary to ensure students are ready to read. Phonological awareness is one of the areas of early literacy that is a good predictor of later success in reading. The purpose of this study was to evaluate a representative group of pre-kindergarten classrooms in the Mid-Ohio Valley region of Appalachia. The researcher looked at the methods used by teachers to explicitly and implicitly teach phonological awareness in their classrooms. A Likert scale survey was administered to investigate methodology used by teachers to expose students to these skills in the classroom. Teachers answered questions that focused on their use of strategies to develop early literacy skills such as phoneme and grapheme recognition, segmentation, blending, rhyming, and syllabication. The study concluded that pre-kindergarten programs in the region are not adequately exposing children in their programs to activities designed to develop phonological awareness. The results suggest that the pre-kindergarten programs currently in operation are inadequate in their teaching of early literacy phonological skills. Results further indicate that teachers are teaching with old reading readiness paradigms rather than research-based early literacy exposure paradigms.
DEDICATION

To my Mother
ACKNOWLEDGMENTS

I wish to thank my family for their patience and support. Thank you for the meals you prepared, the laundry you finished and the countless sacrifices you made in order to make this thesis a reality.

I thank William M. Bauer, my advisor and exuberant cheerleader. Thank you for not letting me charge ahead or give up and for always believing in my possibilities.

I would like to thank Dorothy Erb for discussing the various aspects of this thesis with me. Thank you for the guidance and for focusing on my strengths in the times when I only saw weakness.

I am grateful to the Education Department and Cathy Mower, Pamela Oliver, Elaine O’Rourke, Connie Golden, Mary Beth Peebles and Linda Gorman. Thank you for your lively discussions and input. Without your guidance and support this endeavor would not have been possible.

I wish to thank Mark Sibicky and the Psychology Department for their help in survey research and statistical calculations.

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CHAPTER 1

INTRODUCTION

Years ago Johnny couldn’t read (Flesch, 1955). Then Johnny still wasn’t reading (Flesch, 1981). Today Johnny is going to kindergarten and he is not ready to read. To make matters worse, when compared to children who are raised in a literacy rich environment, Johnny will not only struggle with reading and self esteem into adulthood but he is more likely to be placed in special education, less likely to graduate and more likely to participate in delinquent acts against society (Barnett & Hustedt, 2003; Lonigan, Burgess, & Anthony, 2000). There is mounting evidence to suggest that the early literacy concepts, knowledge and skills that children receive during the ages of 2 to 5 correlate directly to their success in school and society (Pullen & Justice, 2003; Snow, Burns, & Griffin, 1998; Whitehurst & Lonigan, 1998). In a joint statement by the International Reading Association (IRA) and the National Association for the Education of Young Children (NAEYC) (2000) the committee states, “Failing to give children literacy experiences until they are school age can severely limit the reading and writing levels they ultimately attain” (p.2).

A substantial body of research has demonstrated that three distinct areas of early literacy that can be associated with later reading success are (a) phonological awareness, (b) print awareness and (c) oral language (Lonigan et al., 2000; Pullen & Justice, 2003).
Stanovich and Adams (as cited in Venn 2004) “suggest that a child’s phonological awareness ability is a better predictor of success in reading than IQ or even knowledge of the alphabet” (p.8). In a preliminary release of research findings, The National Early Literacy Panel (2004) disclosed that along with knowledge of the alphabet, phonological awareness helps children form the basis of early decoding and spelling ability (p.3). They also concluded that pre-kindergarten programs should immerse children in language rich environments.

This study looked at the explicit teaching of one of these indicators, phonological awareness. By surveying a sampling of pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia, the researcher ascertained the levels of phonological awareness skills that are being taught to children. It is the premise of this researcher that these skills are not adequately being taught in pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia; which leaves children at risk for success in kindergarten reading programs.
Statement of the Problem

Many children in the Mid-Ohio Valley region of Appalachia are coming to kindergarten lacking the skills necessary to succeed at reading. The 2000 census reports that in the state of West Virginia only 36.8% of children aged 3 and 4 attend any pre-kindergarten program at all. Furthermore, due to the lack of funding and standards imposed on early childhood programs in the area, many of the children coming from daycare or pre-kindergarten programs are also lacking in the reading readiness skills necessary to survive in school (Center, 2004).

Purpose and Research Questions

Pre-kindergarten programs provide a valuable nurturing ground for 3 to 5 year olds. It is during this time that they are introduced into the education system. They learn the social structure of school and to adjust to their environment and socialize with their peers. It is also during this time that they develop critical emergent literacy skills.

This study describes what instructors in pre-kindergarten programs are teaching with respect to phonological awareness. The teachers were surveyed to determine their knowledge of and preparation in early literacy teaching. Including the amount of ongoing professional development in which they participate. The study looked at explicitly what teaching methods teachers are using in the classroom. The study asked: “To what extent do teachers in private pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia teach phonological awareness to the students in their classes?”
Research Hypothesis

The primary research hypotheses described below was tested using statistical procedures. All analysis was conducted using the Statistical Package for Social Sciences (SPSS) 2005, version 11.5. It was anticipated that the results would show that phonological awareness skills are not being taught effectively in pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia.

Null Hypothesis

There is no difference between recommended early literacy teaching skills and what exists in private pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia. \( H_0 \)

Alternative Hypotheses

There is a difference between recommended early literacy teaching skills and what exists in private pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia. \( H_1 \)
Definition of Terms

ALPHABET RECOGNITION - the recognition of the complete set of letters or other graphic symbols representing speech sounds used in writing a language or in phonetic transcription (Harris & Hodges, 1995).

APPALACHIA – a geographical region stretching and encompassing the Appalachian Mountain range that extends from southern eastern New York south to parts of Alabama.

EMERGENT LITERACY – skills, knowledge, and attitudes that researchers presume to be developmental precursors to conventional forms of reading and writing (Whitehurst & Lonigan, 1998).

GRAPHEME – a written or printed representation of a phoneme, as $b$ for /b/ and oy for /oi/ in boy (Harris & Hodges, 1995).

MID-OHIO VALLEY REGION OF APPALACHIA– the area surrounding the confluence of the Ohio, Muskingham and Little Kanawha rivers. It encompasses the counties of Wood in West Virginia and Washington in Ohio.

ONSETS – all the beginning letters up to the vowel: spend; know; string; band. (Cunningham, 2005)

PHONEME-a minimal sound unit of speech that, when contrasted with another phoneme, affects the meaning of words in a language, as /b/ in book contrasts with /t/ in took, /k/ in cook, /h/ in hook (Harris & Hodges, 1995).

PHONEMIC AWARENESS – being cognizant of the sounds in language and hearing and using the sounds of our language (Crawley & King, 2004).

PHONOLOGICAL AWARENESS – the conscious sensitivity to the sound structure of language. It is the awareness that language is made up of various units of sound.
Phonological awareness can also be thought of as an individual’s capacity to attend to and reflect on the phonological components of spoken language. (Lane and Pullen 2004)

RIME – (also called phonograms and word families) The vowel and following consonants within a syllable. (Cunningham, 2005)

RHYME – identical or very similar recurring final sounds in words within or, more often, at the ends of lines of verse (Harris & Hodges, 1995).

SEGMENTATION – that act of being able to break down the graphemes in words in order to make sense of a word or phrase.
Limitations of the study

Research is only as good as the picture it paints. Those in favor of single method quantitative studies will rely on the validity of the numbers to paint that picture. This study is primarily quantitative in its focus; by its very nature it will only provide one piece of information to the field. The other research shall be left to another day when there is more money and more time to qualitatively examine the facets of pre-kindergarten programs in the Mid-Ohio Valley region.

This study was limited by the demographic region in which the sample was collected. It will sample approximately 50 schools in the region. Although every attempt was made by the researcher to include all pre-kindergarten programs in the Mid-Ohio Valley region there is no existing database which lists all of the schools available. For that reason the findings cannot be generalized beyond the Mid-Ohio Valley.

Appalachia is a large and diverse region encompassing several cultures and traditions. Although the study results may be used to elicit change in this area it may or may not be applicable to other areas in the Appalachian region.

The researcher encountered difficulties in compiling a complete list of pre-kindergarten programs in operation in the region. The majority of programs advertise by word of mouth and do not have electronic or telephone advertising. Because of this difficulty some programs could have been overlooked.

The level of early literacy education of pre-kindergarten teachers may have played a factor in determining how they filled out the survey. If they did not have a working knowledge of the problem being addressed then they could not adequately
answer the questions. This limitation could have resulted in reluctance to return the survey at all.

This study did not attempt to examine or test all domains of emergent literacy that are crucial to developing reading and writing skills. This study only examined phonological awareness as one of the many indicators of later reading success.
Emergent Literacy

One of the most exciting developments in education in the last 25 years has been the research of the very origins of literacy in early childhood. Prior to this research, it was commonly accepted that a child was “ready to read” when he was old enough to enter kindergarten. In theory and practice, teachers believed that children were a blank slate ready to be filled up by trained professionals; what prior knowledge a child may possess made no difference in respect to the teaching of reading skills. Smith (1986) reminds readers that “teachers and other adults are given altogether too much credit for what we learn as children” (Werner, 2000). Research now confirms that the period from birth to about age 8 is critical in the development of literacy skills for children (Dickinson & McCabe, 2001). Teal and Sulzby (1986) sum up what observers of young children seem to have known all along, “Children’s early reading and writing behaviors are not pre-anything, but are integral parts of a language process which is in a state of becoming” (Werner 2000).

The term emergent literacy is used by researchers and educators alike to describe preliterate skills related to reading and writing (Sulzby 1985; Whithurst and Lonigan 2004; Justice & Kaderveck, 2004). Emergent literacy skills acquired in the first few years
of life provide the foundations necessary for a child’s transition to early or beginning reading and eventually, the achievement of conventional, skilled reading (Justice & Kaderavek, 2004; Sulzby, 1985; Whitehurst & Lonigan, 2001). Justice and Kaderaveck (2004) identified 4 major areas of emergent literacy. These skills are acquired typically during the pre-kindergarten years and can be accurate predictors of success or failure in reading. They are phonological awareness, print concepts, alphabet knowledge and literate language features (Justice & Kaderavek, 2004).

Phonological awareness is an awareness of the sound structure of spoken language at the level of word, syllable onset-rime and phoneme. As the child progresses from minimal to complex awareness levels, both blending and segmenting skills are involved. Knowledge of how print is organized is called print concepts. This includes relationships between written language units. The child understands that letters make up words and the descriptive terminology used such as “letter”, “word” and “write”. This category also includes understanding of how books are organized: front to back, right to left and top to bottom. Environmental print is included here in all its forms and functions. The understanding that different styles of print all mean the same thing and early developmental writing skills are all part of print concepts. Alphabet knowledge is different from print concepts in that it describes knowledge of the distinctive features and names of individual letters in both upper and lower case formats. Justice and Kaderavek (2004) use literate language features as a grouping to include the use of specific syntax/semantic features characterizing written texts. This is the understanding and use of adverbs conjunctions, mental/linguistic verbs and elaborated noun phrases to explicitly decipher meaning of text (Justice & Kaderavek, 2004).
**Early Intervention**

Children who grow up in literacy-rich environments enter school with an advanced understanding of the concepts that help to scaffold reading and many may be already reading by the time they reach kindergarten (Pullen & Justice, 2003). In a perfect world, every child would have the same opportunity and access to literacy environments and materials but unfortunately this is not so. Socio-economic factors oftentimes dictate the environments to which children are exposed. According to Lonigan, Burgess and Anthony (2000) “An estimated one in three children experience significant difficulties in learning to read”. If we look at this from a larger perspective, the data shows that about 60 to 70% of children have an easy time learning to read (D'Arcangelo, 2003). That sounds impressive, but turn the statistics around and 30 to 40% of children are going to need help. That number leaves far too many children who need remediation in the classroom. Juel (1988), reported that the probability that children would remain poor readers at the end of the fourth grade if they were poor readers at the end of the first grade was .88 (Juel, 1988). If early intervention can and does make a difference, what should teachers be doing to ensure children in the Mid-Ohio Valley are successful literate readers?

**Social and Economic Factors**

Researchers agree that phonological awareness activities should be integrated into the daily pre-kindergarten program curriculum. The teaching of phonological awareness is critical for children who come from lower socioeconomic backgrounds and may not have access to language play activities inside the home. Explicit teaching of phonological skills is crucial for these children who are prone to developing reading disabilities.
By integrating phonological awareness into the pre-kindergarten programs and making quality pre-kindergarten programs available to all children, it will take less money per student to teach the children in our classes. Allington and Walmsley (1995) report that it costs more to educate some children than others. They quote Levin (1998) who suggests that generally, we can expect to spend about 50 percent more to educate the at-risk child (Allington & Walmsley, 1995). Snow, Burns and Griffin (1998) are emphatic in their conclusion that:

“Excellent preschools can make a difference for at-risk children; excellent in this case implies providing rich opportunities to learn and to practice language and literacy related skills in a playful and motivating setting. Substantial research confirms the value of such preschools in preventing or reducing reading difficulties in at-risk children.” (p.171)

There are other benefits to pre-kindergarten early intervention and the explicit teaching of early literacy skills. Substantial evidence has been collected to conclude that pre-kindergarten program education produces persistent gains on achievement test scores. It also produces fewer occurrences of grade retention and placement in special education programs and increased high school graduation rates. Some studies have even linked pre-kindergarten program attendance to decreased crime and delinquency rates (Barnett, 2002; Barnett & Hustedt, 2003).

In an article entitled “Preschool: The most important grade”, Barnett and Hustedt (2003) site the example of three studies to show the benefits pre-kindergarten education can yield. The three studies examined include the High/Scope Perry Pre-kindergarten
program, the Abecedarian Early Childhood Intervention Program and the Title 1 Chicago Child-Parent Centers. They claimed that the economic benefits to society and to school systems far outweigh the costs of intensive, high quality pre-kindergarten programs (Barnett, 1996; Masse & Barnett, 2002; Reynolds, Temple, Robertson & Mann, 2002). After reviewing and comparing the previous programs, Barnett and Hustedt (2003) make several points concerning their findings.

1. The participants in these studies were less likely to be retained in grade or placed in special education.

2. As adults, the participants were more likely to get better jobs and earn more money.

3. The participants were less likely to participate in delinquent acts or break laws.

These studies were all conducted on high quality programs that hired and paid qualified teachers unlike many early education programs in the Mid-Ohio Valley region.

**Phonological Awareness**

For a child to learn to read he/she must be able to associate the sounds of the oral or spoken language with the written letter and eventually make the connection from letters to words and words to sentences. Phonological awareness is a broad term that encompasses identifying and manipulating larger parts of spoken language, such as words, syllables, phonemes, onsets and rimes (Armbruster, Osborn, & Lehr, 2003). Included in phonological awareness is the concept of phonemic awareness which is a much narrower segment. Phonemic awareness is commonly referred to as the identification and manipulation of individual sounds in words. Armbrutsher, Lehr and
Osborn (2004) list 4 skills demonstrated by children who have a grasp of phonemic awareness.

1. Children should recognize which words in a set of words begin with the same sound. They should be able to isolate the first or last sound in a word.

2. The child should be able to combine or blend separate sounds in a word to say the word.

3. The child should be able to break or segment a word into separate sounds.

There are other skills that fall outside of phonemic awareness that are critical to the development of successful reader. These fall under the umbrella term of phonological awareness. Goswami (2000) suggests that there are 4 other critical skills.

1. Children should be able to identify and make oral rhymes.

2. They should identify and work with syllables in spoken words.

3. They should identify and work with onsets and rimes in spoken syllables or one syllable words.

4. They should be able to identify and work with individual phonemes in spoken words.

Pre-kindergarten programs can be an important source of development for phonological awareness. Researcher Pullen and Justice (2003) state: “very young preschool children’s performance on phonological awareness tasks has been shown to be a robust predictor of early reading achievement” (p.88). Phonological awareness activities should be integrated into the daily pre-kindergarten curriculum. “This is critical for children who come from lower socioeconomic backgrounds and may not have access to language play activities inside the home. Explicit teaching of phonological skills is
crucial for these children who are prone to developing reading disabilities.” (Pullen & Justice, 2003)

*Pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia*

There is no data existing exclusively for the Mid-Ohio Region of Appalachia in relation to the number of pre-kindergarten children and pre-kindergarten programs. The researcher will be using West Virginia as a model for statistical purposes. In the state of West Virginia according to the 2000 census, 36.8 percent of 3 and 4-year-olds are not enrolled in school. That leaves a substantial number of students entering kindergarten with no prior instruction.

According to The Education Commission for the States, West Virginia provides some state aid pre-kindergarten program opportunities although there are no formal guidelines. The State Department of Education works closely with counties to design the components for their programs. Counties still establish their own eligibility criteria for pre-kindergarten programs. In 2002 the state passed legislation that by 2012-13 school year, school-based pre-kindergarten programs will be available for all 4-year-olds. The programs are not mandatory at this time and funding was deferred to individual districts for implementation of the programs (*State Funded Pre-Kindergarten Programs*, 2004).

In the Mid-Ohio Valley region there is not a comprehensive list of pre-kindergarten programs available to the general public. There are not standards that govern what should be taught or when. Pullen and Justice’s research demonstrates that, “For children in the emergent stages of literacy development it is critical to realize that exposure long precedes mastery; increasing explicit engagement in and exposure to phonological awareness activities is more important than relentlessly pursuing mastery”
(p. 90). This being the case, the researcher is forced to question, “How and when are phonological awareness skills being taught?”
CHAPTER THREE

METHOD

Study Design

Evaluation of the phonological awareness methods used by teachers in the Mid-Ohio Valley’s pre-kindergarten programs was done using a Quantitative - qualitative method. This was accomplished with a survey study using a Likert question design. A quantitative analysis was conducted using the results of the survey mailed to the institutions participating. Telephone contact was made with all recipients of the survey confirming contact. A complimentary copy of “Put Reading First: The Research Building Blocks for Teaching Children to Read”, published by the Center for the Improvement of Early Reading achievement, was sent to each participant who completed the survey form. The survey attempted to record how participants rated themselves in regard to their use of early literacy teaching strategies.

The researcher in this study utilized a quantitative cross-sectional survey design. This allowed the researcher to collect data about teachers’ classroom practices and explicit teaching of phonological skills. The quantitative Likert scale survey was sent to existing pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia. The list of participants was compiled by contacting local community organizations who have
dealings with early childhood programs. Space was left at the end of the survey for teachers to add additional comments.

The advantage of this approach is that this design can effectively measure current attitudes and practices in a short amount of time. The disadvantage of this approach is that qualitative researchers would argue that there is a tendency to rely heavily on numbers and not address the qualitative observations that have influence on the material questioned. The open-ended questions left room for themes to develop around the teachers and their methods.
Phonological awareness

The Procedures

There is no central database listing all the pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia. For the purposes of this study the region is defined as the cities that are contained in the counties of Wood, in West Virginia and Washington, in Ohio. A list of the pre-kindergarten programs was compiled by making contact with area school board offices, kindergarten teachers, and area churches, the Family and Children First Council of Washington County, Ohio and the Child Welfare League of Wood County, West Virginia. Also contacted were the Head Start offices in both counties. Once the list was compiled the researcher posted the following mailings to the respondents:

Mailing One

1. A cover letter explaining the research and introducing the researcher to the directors and supervisors of the programs being asked to participate. The letter asked for phone or e-mail confirmation of permission to participate in the study.

Mailing Two – One week later.

1. A letter explaining the research and introducing the researcher to the teacher.
2. A Likert style survey of phonological awareness skills being assessed.
3. A return addressed stamped envelope.

Two weeks after the initial mailing the researcher telephoned the participants to confirm receipt of the packet and to ensure that the survey is returned in a timely fashion.

Delivery Three

1. Replacement surveys were hand delivered to the remaining respondents who had not replied and who still wished to participate.
Mailing Four

1. A gift copy of “Put Reading First: The Research Building Blocks for Teaching Children to Read”, published by the Center for the Improvement of Early Reading Achievement and funded by the National Institute for Literacy was mailed to each respondent who sent in the survey. A thank you note was included with the book. The note expressed thanks for participating and gave the internet address where the finished report could be viewed.

**Instruments**

The study was conducted by administering a Likert style survey. The survey contained questions in each of the following areas of phonological awareness: phoneme and grapheme recognition, segmentation, blending, onsets and rimes and syllabication. In addition to the survey the teachers were asked to supply their level of early literacy training. Also teachers were asked to report the amount of professional development in which they participate on a yearly basis.

**Reliability**

To ensure internal reliability, the following strategies were employed:

1. The researcher had the surveys approved by experts in the reading field to assure that the questions are clear and understandable.

2. The researcher set the alpha level at .05 on SPSS.
Validity

To ensure internal validity, the following strategies were employed:

1. Content validity was examined by asking experts if the questions were equally representative of all the areas of phonological awareness being tested. The experts examining the survey were Dorothy Erb PHD, Chairman of the Education Department Marietta College; Cathy Mower ABD instructor, Marietta College; Pam Oliver instructor, Marietta College.

2. Construct validity was examined by the use of statistical measures to see if scores to the questions supported the intended hypothesis.

3. Predictive Validity was examined by correlating the scores on the questions with the research questions being asked.

Data Analysis Procedures

The data was organized categorically and chronologically reviewed and coded. Manual tabulation was performed by the researcher prior to SPSS. The quantitative data was entered into a database and subjected to a set of analyses using SPSS.

Preliminary Results

The researcher expected to prove that the alternative hypothesis is correct. The alternative hypothesis states: There is a difference between recommended early literacy teaching skills and what exists in pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia. H₁

The data was predicted to show that teachers are not teaching the early literacy skills of phonological awareness to their students on a consistent basis. The study showed
that the majority of pre-kindergarten program teachers in the Mid-Ohio Valley region of Appalachia have little early literacy training.

*Potential Ethical Issues*

Prior to the mailing of the survey packets, the researcher obtained permission from the heads of each institution being surveyed and the Marietta College Human Subjects Review Board. The anonymity of the individuals and their institutions was protected by assigning number codes that were used to link the respondent to the questionnaires. The name-to-code lineage information was stored separately from the questionnaires. The identity of the individuals and their institutions remains private and confidential and names and addresses will not be given to anyone outside of the researcher. The researcher destroyed the questionnaires and any identifying information about the respondents after the responses were entered into the computer. The names and addresses of the survey respondents were omitted from computer files used for analysis. Every attempt was made to present statistical tabulations by broad enough categories so that individual respondents cannot be singled out. The data was stored in the researcher’s home.
CHAPTER FOUR

DATA ANALYSIS

Interpretation of the Findings

The findings from the teacher survey were collected via mail and personal pick up and the results were tabulated using SPSS version 11.5. Fifty-two surveys were collected from sixty-eight sites across the Mid-Ohio Valley region of Appalachia. Of the 68 sites surveyed 38 responded. The return rate was 55 percent.

The survey was designed using a five point Likert scale with the categories of never, sometimes, usually, most of the time, and always. For data analysis purposes an ascending scale was assigned with never coded as one and always coded as a five.

The questions in the survey were divided into six categories of phonological awareness. Below are the categories and the questions that were included.

General Phonological awareness

1. Phonological awareness is clear cut and specific for children who are struggling
2. Phonological awareness instruction is conducted in small groups.
3. Phonological awareness instruction occurs frequently and for short periods of time.
4. Phonological awareness instruction focuses on one or two phonological skills.
5. Instruction specifically teaches children that books have a front and a back.
Phonological awareness

Print and Word Awareness

1. When sharing books with children teacher uses a pointer to follow print direction.

2. Teacher encourages students to dictate stories, the stories are written down and the children illustrate them and read them back to the class.

3. Instruction includes the use of a word wall.

4. Students are encouraged to find and recognize words in the environment.

5. Teacher says the name of a picture or an object and asks the children to produce the beginning sounds for words.

6. Teacher encourages children to come up with word that begin with the same sound as a picture example.

Rhyme Awareness

1. Teacher generates lessons where given a list of words the child identifies which words rhyme.

2. Teacher generates lessons where given a word, the child analyzes a word and thinks of a word with the same rime pattern.

3. Teacher helps children recognize rhymes by designing lessons where given a pair of word the child determines if they rhyme.

4. Teacher designs lessons where children are given a word segmented into various sound units. The child can blend the sounds together to make the whole word and can make additional rhymes.

Syllable Awareness

1. Teacher designs lessons where children are given a word segmented into various sound units and the child can blend the sounds together to make the whole word.

2. Teacher designs lessons where given a word the child can segment it into various sound units and the child blends the sound together to make the whole word.
3. Teacher designs lessons where the child is given a whole word and asked to segment it into smaller chunks.

*Phoneme Level Awareness*

1. Given a whole word the child can remove one unit of sound from the word.

Teachers were asked two questions relative to their qualifications. They were asked to list their highest level of degree earned in education. They were asked how often they attended workshops in early childhood education training. A section of the survey was designated for additional comments to allow for any thoughts or frustrations experienced by the respondent. A definition of phonological awareness was included at the start of the survey to clarify the subject being discussed.
Table 1

Mean Scores of General Phonological Awareness

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<td>2</td>
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<td>3.7</td>
</tr>
<tr>
<td>3</td>
<td>51</td>
<td>3.9</td>
</tr>
<tr>
<td>4</td>
<td>50</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Figure 1

Mean Score of General Phonological Awareness

- Instruction is clear and concise
- Conducted in small groups
- Frequently for short periods
- Focus on one or two skills
### Table 2

*Mean Scores of Print and Word Awareness*

<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>52</td>
<td>4.21</td>
</tr>
<tr>
<td>2</td>
<td>52</td>
<td>2.34</td>
</tr>
<tr>
<td>3</td>
<td>52</td>
<td>2.46</td>
</tr>
<tr>
<td>4</td>
<td>52</td>
<td>2.86</td>
</tr>
<tr>
<td>5</td>
<td>51</td>
<td>2.62</td>
</tr>
<tr>
<td>6</td>
<td>52</td>
<td>3.73</td>
</tr>
<tr>
<td>7</td>
<td>52</td>
<td>3.73</td>
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</tbody>
</table>
Figure 2

*Mean Score of Print and Word Awareness*
Table 3

Mean Scores of Beginning Sound Awareness

<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>52</td>
<td>3.82</td>
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</table>

Table 4

Mean Scores of Phoneme Level Awareness

<table>
<thead>
<tr>
<th>Question</th>
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<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>1.86</td>
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</table>
Table 5

*Mean Scores of Rhyme Awareness*

<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency</th>
<th>Mean</th>
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<tr>
<td>Identifies which words rhyme</td>
<td>51</td>
<td>2.64</td>
</tr>
<tr>
<td>Identifies rime and thinks of a like rime</td>
<td>51</td>
<td>2.41</td>
</tr>
<tr>
<td>Given a pair of rimes to determine rime</td>
<td>51</td>
<td>3.01</td>
</tr>
<tr>
<td>Segment like rimes</td>
<td>51</td>
<td>2.01</td>
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</tbody>
</table>

Figure 3

*Mean Scores of Rhyme Awareness*
Table 6

*Mean Scores of Syllable Awareness*

<table>
<thead>
<tr>
<th>Question</th>
<th>Frequency</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>50</td>
<td>2.06</td>
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<tr>
<td>2</td>
<td>50</td>
<td>2.12</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
<td>1.74</td>
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</tbody>
</table>

Figure 4

*Mean Scores of Syllable Awareness*
Figure 5

Mean scores of each question grouping
Table 7

*Level of Teacher Education*

<table>
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<th>Level of Education</th>
<th>Number of Teachers</th>
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<tbody>
<tr>
<td>GRE</td>
<td>0</td>
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<tr>
<td>High School Diploma</td>
<td>17</td>
</tr>
<tr>
<td>ACDS or other 2 year Early Childhood Certificate</td>
<td>4</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>10</td>
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<tr>
<td>Bachelors Degree</td>
<td>14</td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>4</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
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CHAPTER FIVE

SUMMARY, DISCUSSION AND RECOMMENDATIONS

Summary

The aim of this study was to form a picture of phonological awareness instruction in pre-kindergarten classrooms in the Mid Ohio Valley region of Appalachia. After reviewing the data the researcher has rejected the null hypothesis and accepted the alternative hypothesis. The alternative hypothesis states: There is a difference between recommended early literacy teaching skills and what exists in private pre-kindergarten programs in the Mid-Ohio Valley region of Appalachia. H1

The survey questions were broken into 6 categories of phonological awareness (see Appendix). General phonological awareness (GPA) dealt with how the skills were taught and the frequency of the skills taught. Print and word awareness (PWA), beginning sound awareness (BSA), rhyme awareness (RA), syllable awareness (SA) and phoneme level awareness (PLA). All dealt with specific skills the children should be exposed to during the pre-kindergarten instruction.

Breaking down the questions into groups gives an idea of what is valued and being taught. In the first category (see Table 1, Figure 1), GPA, all the scores ranged in the “usually” category which is the score level of 3. The lowest score occurred on the first question, referring to instruction being clear cut and explicit. In the second category (see Table 2, Figure 2) PWA, there was more variance in the scores. Question one rated
better than a 4 meaning that the teacher valued teaching children the parts of a book. However, when it came to shared reading techniques the scores were below the 3 mark. It would seem that print directionality, word prediction and dictation are not high on curriculum priorities. Use of a word or chunking wall was a 2.6. Teachers scored environmental print and naming objects in the environment at a 3.7. BSA (see table 3) was scored at a 3.8 making it very close to “most of the time” taught. Further into the survey, the scores began to drop. RA (see Table 5, Figure 3) was a three when it came to comparing two words. Activities that involve groups of word or independent thinking were scored below 2.5 on the scale. SA (see Table 6, Figure 4) scored even lower across the board with the scores falling at 2 or below. PLA (see Table 4) did not reach the 2 mark on the scale.

It was interesting to note that the mean scores for the questions on method (GPA) were a 3.72 (see Figure 5). This would mean that they believed that teaching was occurring usually to most of the time. The teachers believed that they were teaching the skills. Similar results were calculated for the questions dealing with BSA. What is interesting to note is that in regard to PWA and RA, they were teaching this at a usual level while they employed SA and PLA considerably less. Due to the relationship between GPA and BSA in the calculations and the low score in the other areas it is reasonable to question if the teachers have an understanding of the definition of phonological awareness. In some cases there was confusion between phonological awareness and the teaching of phonics.

Emerging Themes

Qualitatively, themes began to emerge out of the comments section of the survey that shed some light on the scoring patterns.
Phonological awareness

A significant number of teachers believed that students should not be taught certain phonological skills until they were developmentally ready for them. Below is a sampling of the generated readiness theme.

- “Some of the questions are at a higher level than what we teach our 4 year olds.”
- (Referring to Rhyme awareness, Syllable awareness and Phoneme Level Awareness) “…too advanced.”
- “The above is how the class was taught until January.” (Scores were mostly in the never and sometimes categories.)
- “Our phonics program is limited.”
- “I use a multi-leveled whole language approach. The abilities of the group dictate the amount and timing of skills taught.”
- “Pre-K does not sound and blend.”
- “Some of the phonic examples would be over the heads of our children.”
- “The opportunities provided are the responses marked. Not all students experience this level of readiness in Pre-K.”

An overwhelming amount of research states: early exposure to these phonological awareness skills is a critical part of later success in reading. (Allington & Walmsley, 1995; Justice & Kaderavek, 2004; Pullen & Justice, 2003; Snow, Burns and Griffin, 1998; Sulzby, 1985; Whitehurst & Lonigan, 2001). If this is correct, then there are contradictory practices at work in this region. Teachers value the importance of phonological awareness methodology. That is evident from the scores they gave the questions on GPA. This could imply that students who are not “ready” would not be exposed to information
critical for scaffolding that they would build on later. The reason for this reliance on readiness methods may be found in the education of the teacher.

Teacher Understanding

A significant factor in the teaching of phonological awareness by teachers is whether or not they themselves have been exposed to the current research on the subject of early literacy. Below are some examples of confusion in understanding phonological awareness.

- “Our Phonics Program is limited.”
- “I feel this survey is a real eye opener. A lot of what I read on this survey I see my kindergartener learning. … I have realized that we need to incorporate more syllable learning.”

From the sample of teachers surveyed (see Table 7), 40 % possess less than a two year certification in any form of early childhood education and 80 % of that figure are High School Diplomas. If you add to that number the teachers who have an Associates Degree then 59% of pre-kindergarten teachers in the study have less than a two year degree. Certainly this is not to assume that teachers are incompetent, but it does raise some questions concerning their knowledge of the subject addressed and their capacity to teach research-based phonological awareness.

Implications

Emergent literacy skills acquired in the first few years of life provide the foundations necessary for a child’s transition to early or beginning reading and eventually, the achievement of conventional, skilled reading (Justice & Kaderavek, 2004; Sulzby, 1985; Whitehurst & Lonigan, 2001). If those skills are not introduced then we are not giving children the foundations that they need to scaffold the rest of their learning. The National Reading Panel reported that “Students in the lower grades, preschool, and
Phonological awareness showed larger effect sizes in acquiring phonological awareness than children in first or second grade and above.” (National Reading Panel 1999). The Panel goes on to note that phonological awareness is not the only component of learning to read but is indeed a critical foundation for success in reading. If this element of reading is indeed foundational then every attempt must be made to ensure its existence in our pre-kindergarten programs.

The results of this study confirm that early literacy skills in the area of phonological awareness are being taught at insufficient levels in the Mid-Ohio Valley Region of Appalachia. What that means is that children who may already be at risk economically and socially may continue to be at risk in a system that does not immerse children in literacy early and often. It is optimistic to think that all children who enter the school system will be great readers by the time they reach the third grade. But it is not optimistic to think that a significant number of students could avoid the humiliation and cost of remediation in reading if they had just been exposed to literacy-rich environments in the pre-kindergarten years. This report points a sharp finger at one area of early literacy in the valley. It is not intended to say that we are not doing some things right. It is not to say that there are not wonderful teachers in the pre-kindergarten programs that every day touch lives and encourage education in the youth of this area. What it is saying is that we are not doing enough. We cannot be satisfied with just enough or average; we need to strive for the best. Teachers need to be informed and trained to handle the latest research-based information possible.

Further Research

This study has only scratched the surface of pre-kindergarten programs in the Mid-Ohio Valley. Further research is needed in order to give a clearer picture. This study did not attempt to differentiate between public and private programs. It did not attempt to
observe explicit teaching of phonological awareness in practice. It will be left to another study to observe teachers and follow their students through the learning process to validate their achievement. The researcher discovered one unexpected outcome of this research. On more than one occasion the directors have expressed gratitude at raising the expectations of their teachers in regard to the components of phonological awareness instruction. If this study accomplishes nothing else other than to make us look at ourselves a little closer and question methods then it has been worthwhile. However, there are some questions that need further research.

- Research needs to look specifically at what teachers need to know in order to effectively instruct their students in phonological awareness.
- Research needs to look at the motivations of students and teachers in the instruction and learning of phonological awareness in the classroom.
- Research needs to look at ways to connect pre-kindergarten programs for the sharing of information and resources. This connection needs to include connections and the sharing of information for teachers, parents and the community.
- Research needs to look at alternative forms of financing for teacher training and education.
- Research needs to look at the differences between public and private institutions and those located in urban and rural areas.
REFERENCES


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*Educational Leadership, 60*, 6-10.

Skills and Environmental Supports of Early Literacy. *Learning Disabilities
Research and Practice, 16*(4), 186-203.


http://www.escs.org/dbsearches/searc_info/PreK_ProgramProfile.asp?state=WV


APPENDIX

Survey and Letters
Dear Pre-kindergarten program /Program Director,

Introduction
I am a graduate student at Marietta College. I am working on my thesis by conducting a study on Pre-kindergarten program teachers in the Mid-Ohio Valley Region of Appalachia. I taught pre-kindergarten program for seven years prior to beginning my studies in early reading literacy at Marietta College.

Your school was selected as a possible participant because you have designed a program that will prepare children for kindergarten and you include 3 and or 4 year old children. I would like to invite your teachers and aides to participate in a study on the phonological skills that are being taught in pre-kindergarten program classrooms. The study will provide teachers and researchers with insights concerning what children are learning in the classroom and help in the development of relevant professional training.

Procedures
If you agree to this study your teacher will be mailed a survey based on an extensive literature review. It will ask them to identify how much or how little phonological awareness skills are taught in the classroom. All questions are multiple choices. It should not take more than 15 minutes to complete the survey

Risks
Being a participant in this study has no foreseeable risks.

Benefits
The researcher hopes to develop a learning model for pre-kindergarten program teachers in rural Appalachia and then share this information with others who may benefit. This may help institutions such as yours develop more effective lesson plans, training and development plans. As a participant you will have electronic access to the completed paper. Also as a participant you will receive a gift copy of Put Reading First: the Research Building Blocks for Teaching Children to Read which is published by the National Institute for Literacy.

Confidentiality
The records of this study will be kept private. No information will be included in any published report that will make it possible to identify a subject. Research records will be kept in a secured file and only the primary researcher will have access to the records.

Contact and Questions
You may contact me at backusc@marietta.edu or by phone at 304-481-4139

Sincerely,

Carolyn S. Backus
Graduate Studies Marietta College
Dear Pre-K / Early Childhood Teacher(s),

**Introduction**
I am a graduate student at Marietta College. I am working on my thesis by conducting a study of preschool teachers in the Mid-Ohio Valley Region of Appalachia. I taught preschool for seven years prior to beginning my studies in early reading literacy at Marietta College. You were selected as a possible participant because you have designed a program that will prepare children for kindergarten and you include 3 and or 4 year old children. I would like to invite you to take part in this study on the phonological skills that are being taught in preschool classrooms. Upon conclusion, this study will provide you with insights concerning what children are learning in similar classrooms across the valley.

**Procedures**
Following this letter is a survey consisting of multiple choice questions. I have included two surveys if you need more you are welcome to copy them or contact me and I will send extras. The survey will ask you to identify how much or how little you teach phonological awareness skills in your classroom. All questions are multiple choices and are rated on a scale of *never* to *always*. Check the blank that is most appropriate in your situation. It should not take more than 15 minutes to complete the survey. When you are finished put it in the stamped envelope and place it in the mail as soon as possible.

**Risks**
Being a participant in this study has no foreseeable risks.

**Benefits**
I hope to use this information to develop a learning model for preschool teachers in rural Appalachia and then share this information with others who may benefit. This may help you develop more effective lessons for your classes. As a participant you will have electronic access to the completed paper and will receive a gift copy of Put Reading First: the Research Building Blocks for Teaching Children to Read which is published by the National Institute for Literacy.

**Confidentiality**
The records of this study will be kept private. No information will be included in any published report that will make it possible to identify a subject. Research records will be kept in a secured file and only the primary researcher will have access to the records.

**Contact and Questions**
You may contact me at backusc@marietta.edu or by phone at 304-481-4139. Thank you for helping complete this study and my master’s degree program at Marietta College.

Sincerely,

Carolyn S. Backus
Graduate Studies Marietta College
Dear Pre-Kindergarten Teacher

Please accept this token book in appreciation for completing the survey on phonological awareness. Thank you for helping me complete my thesis study. The book you are receiving is published by The National Institute for Literacy which supports teachers with research-based materials. You may access their web site at www.nifl.gov for more information.

A copy of my thesis will be available for you to read after May 8, 2005. It will be available on OhioLINK under the title “Why Johnny isn’t ready for Kindergarten: a Study of Phonological Awareness Methodology in Pre-Kindergarten Programs in the Mid-Ohio Valley Region of Appalachia”. If you do not have access to OhioLINK and would like a copy please contact me via e-mail at backusc@marietta.edu and I will send you a copy electronically.

Thank you again for your participation. Together we can make the Ohio Valley a better place for all children to live and learn.

Sincerely,

Carolyn S. Backus
Graduate Student Marietta College
For purposes of this study phonological awareness is defined as the conscious sensitivity to the sound structure of language. It is the awareness that language is made up of various units of sound. Phonological awareness can also be thought of an individual’s capacity to attend to and reflect on the phonological components of spoken language, separate from meaning. –Lane and Pullen 2004

What is the highest degree you earned?

- GRE
- High School Diploma
- Bachelors Degree
- Graduate Degree

How often do you attend workshops or training in early childhood education?

- Never
- Once every 5 years
- Once every 2 years
- Once every year
- Twice a year or more

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
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<th>Usually</th>
<th>Most of the time</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Phonological Awareness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological Awareness instruction is clear cut and specific for children who are struggling.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological Awareness instruction is conducted in small groups.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
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<td>Phonological Awareness instruction occurs frequently and for short periods of time.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological Awareness instruction focuses on one or two phonological skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Print and Word Awareness</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Instruction specifically teaches children that books have a front and back.</td>
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</tr>
<tr>
<td>When sharing books with children teacher uses a pointer to follow print direction</td>
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</tr>
<tr>
<td>Teacher encourages students to predict the next word in a story by covering the word and revealing the text after the guess.</td>
<td></td>
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<td></td>
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<tr>
<td>Teacher encourages students to dictate stories, the stories are written down and the children illustrate them and read them back to the class.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction includes the use a word wall</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students are encouraged to find and recognize words in the environment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher says the name of a picture or an object and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>
asks the children to produce the beginning sounds for words.

### Beginning Sound Awareness

Teacher encourages children to come up with words that begin with the same sound as a picture example.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Most of the time</th>
<th>Always</th>
</tr>
</thead>
</table>

### Rhyme Awareness

Teacher generates lessons where given a list of words the child identifies which words rhyme.

Teacher generates lessons where given a word, the child analyzes a word and thinks of a word with the same rime pattern.

Teacher helps children recognize rhymes by designing lessons where given a pair of words the child determines if they rhyme.

Teacher designs lessons where children are given a word segmented into various sound units the child can blend the sounds together to make the whole word.

### Syllable Awareness

Teacher designs lessons where children are given a word segmented into various sound units the child can blend the sounds together to make the whole word.

Teacher designs lessons where given a word the child can segment it into various sound units. The child blends the sounds together to make the whole word.

Teacher designs lessons where the child is given a whole word and is asked to segment it into smaller chunks.

### Phoneme Level Awareness

give a whole word the child can remove one unit of sound from the word.

**Additional Comments:**