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Phonemic awareness : an action research study

Pamela Miller
University of Northern Iowa

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Phonemic awareness : an action research study

Abstract

This study addresses the issue of phonemic awareness instruction and its effects on reading. Benefits of reading programs that encompass phonemic awareness training and problems with approaches that do not encompass phonemic awareness were discussed as well as benefits and problems associated with both direct phonemic awareness instruction and indirect phonemic awareness instruction. An action research study using Scholastic Phonemic Awareness Kit was conducted and conclusions were drawn from the study and from the literature. Recommendations were made for future phonemic awareness training.

Phonemic Awareness:
An Action Research Study

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by

Pamela Miller

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has been approved as meeting the research requirement for the
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Charles R. May

May 10, 1999
Date Approved

Director of Research Paper

Judith M. Finkelstein

May 11, 1999
Date Approved

Graduate Faculty Reader

W. P. Callahan

S-19-99
Date Approved

Head, Department of Curriculum/Instruction

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CHAPTER I

INTRODUCTION

Background of the Study

There has been an ongoing debate over the years between two poles of beginning reading instruction. One side advocates an intensive, systematic, bottom-up, phonetic approach while the other side supports a holistic, top-down approach. The tide would change as new ideas and research were introduced. For example, whole language, literature-based, integrated language arts created interest in holistic, analytic approaches, while *back to basic* stirred the need for the synthetic approach.

Interest in the phonetic approach began before the Civil War with American children who learned to read at home, in church, or in private schools. They were taught the alphabetic principle: first the alphabet, followed by the corresponding sounds, then they began reading syllables and progressed to words and sentences. They usually read the Bible and patriotic essays which were not adapted to their abilities (Adams, 1990). This approach gained momentum in the 1830s and 1840s with the common school movement. Most children, who were from the working class, as well as

children from the middle and upper classes, attended the common school and learned to read using William H. McGuffey's Eclectic Reader, which was a graded series of six books.

The Primer McGuffey's educational course begins by presenting the letters of the alphabet to be memorized, in sequence. Children are then taught, step by step, to use the building blocks of their language to form and pronounce words. Each lesson begins with a study of words used in the reading exercise - the words presented with markings to show correct pronunciation and syllabication. (Weiner, 1991, p. 1)

From the Civil War to the 1920s, eighty percent of all American children in the common schools were taught to read with the McGuffey Reader (Weiner, 1991).

Horace Mann, secretary of the Massachusetts Board of Education in the mid 1800s, did not favor this approach. He felt children needed to be taught whole words in a meaningful context (Adams, 1990). It took many years before this concept was accepted. Eventually, in the 1930s, until the 1960s, an analytic reading approach was incorporated in the most widely used basal-reading series. Principles included reading for meaning and appreciation; reading whole words, sentences, and stories from the beginning, using controlled and repetitious vocabulary, and identifying new words by picture and meaning clues. Phonics were introduced slowly in first grade; they were integrated with meaningful reading,

and they were never taught in isolation. Children completed a readiness program prior to formal instruction in first grade. This was an outcome of Mabel Morphett and Carleton Washburnee's research in 1931 that indicated "the percentage of children who learned to read satisfactorily is greatest at the mental ages of six years and six months and of seven years" (p. 502).

In 1955, Rudolf Flesch's Why Johnny Can't Read challenged this prevalent view on beginning reading instruction. Flesch believed children should first master the alphabetic principle; then reading and writing needed to be linked. "He advocated a return to a phonic approach...as the best-no, the only- method to use in beginning instruction" (Chall, 1996, p.3). The phonics method regained popularity as more research was conducted which showed that early phonics instruction produced better results (Adams, 1990). Thus, a synthetic method that was highly systematic and skills driven was popularized. Strickland (1998) stated that this "...approach stresses correct identification and automaticity of response" (p.8).

In the 1970s, whole language, a new meaning-emphasis approach, was introduced. Advocates of whole language believed that reading is learned best naturally and in

context, much like language is learned. Through shared book experiences, children acquire sound-symbol relationships in the context of authentic text. By using extensive writing experiences, sound-symbol relationships are reinforced through the use of inventive spelling, for a phonics program does not need to be taught directly (Griffith, P., Klesius, J., & Kromrey, J., 1992). Using whole language, there is greater stress on writing and its relationship to reading, increased use of trade books, and increased integration of language arts (Strickland, 1998).

Over the years the debate has continued between the analytic and the synthetic methods of beginning reading instruction. This difference is more apparent in the debate than in actual practice where many educators combine these approaches into an eclectic method. In this regard, Strickland (1998) stated the following:

Educators on both sides of the phonics debate agree that, ultimately, reading and writing for meaning is paramount. Both sides are keenly aware of the importance of good literature in the lives of children...both sides recognize the importance of the alphabetic code in learning to read and write. (p.8)

The current disagreement with phonics concerns when phonics should be taught, not if it should be taught. Chall (1996) emphasized that research never supported the change to

meaning-based instruction for beginning readers. Research has shown that children who received meaning-based instruction have been ahead on word identification and comprehension through second grade, but by third grade, children who received phonics based instruction move ahead (Byrne, B., Freebody, P., Gates, A., 1992). Longitudinal studies that have followed children through sixth grade revealed that phonics-based instructional gains hold for these children (Chall, 1996). Advocates of the phonics approach point to early training as the key to success, although whole language proponents believe meaning should be emphasized first, and then phonics can be integrated in a natural, meaningful manner.

Since the early 1980s, there has been an increasing number of studies on phonemic awareness in relationship to beginning reading. Chall (1996) concluded that the research on young children of the past two decades has supported the earlier findings that phonological awareness of words tends to be a more potent predictor of beginning reading than word meaning and intelligence.

The terms *phonemic awareness* and *phonological awareness* are often used interchangeably in research. Snider (1997) observed that, "Phonemic awareness can be defined as the

conscious awareness that spoken words comprise individual sounds [phonemes]"(p. 203). Phonological awareness encompasses phonemic awareness, plus awareness that spoken words comprise syllables, onsets, and rimes. Phonemic awareness is often described operationally by its components. "Phonemic awareness is revealed by such abilities as rhyming, matching initial consonants, and counting the number of phonemes in spoken words" (Stahl, 1994, p. 221); also, "...students who have developed phonemic awareness can segment and blend sounds in spoken language" (Griffith, et.al., 1992, p. 85).

The controversy continues with phonemic awareness as the issue. "Phonological awareness and its role in beginning reading has the potential to confound supporters at both extremes of the whole language vs. phonics 'debate' over reading instruction" (Sensenbaugh, 1998, p. 2). Although both sides accept the current research on phonemic awareness as a prerequisite for early reading, the methods vary. Some whole language proponents believe that, "...phonological awareness training violates a fundamental tenet because it isolates components of the reading process (Stanovich, 1993-94, p. 284). Others believe that phonemic awareness can be taught in an integrated holistic way with games, songs, and

poems, where you draw attention to the sounds in the words (Yopp, 1995). The synthetic reading proponents prefer an intensive, systematic approach. The debate continues as many researchers are now looking for a suitable method for training children in phonemic awareness.

Purpose of the Study

The purpose of this paper is to survey the literature and report on an action research study to examine the effectiveness of phonemic awareness training, Scholastic Phonemic Awareness Kit, for 13 kindergartners in an at-risk, low income, midwestern early childhood center. To accomplish this purpose, this paper will address the following questions:

1. What are the benefits of a phonemic awareness program over a whole language program?
2. Of the phonemic awareness programs, direct or indirect instruction, which is the best?
3. What are the problems for direct and indirect instructional programs?
4. What results were achieved in the action research study using the Scholastic Phonemic Awareness kit?

Need for the study

There is an abundance of research pertaining to the question, *What is the best way to teach a child to read?* There is also a wide array of answers. Chall (1996) stated, "At a time when literacy is recognized as the key factor in the attack on poverty, how to give children the right start is more than an academic question" (p. 2).

Educators are always looking for valid and reliable predictors of educational achievement (Sensenbaugh, 1998). Educators and researchers are both interested in phonemic awareness because research indicates that it is the best predictor of the ease of early reading acquisition (Stanovich, 1993-4). Stanovich commented that he could acquire a better prediction for an individual from a seven minute phonological awareness test than from a two hour individually administered intelligence test.

Children, who come from homes rich in literacy experiences, seem to acquire phonemic awareness without formal instruction (Adams, 1990 in Chapman, 1996). They have "...an edge in vocabulary development, understanding the goals of reading, and developing an awareness of print and literacy concepts" (Lyon, 1998, p. 17). Unfortunately, many children do not come from homes where literacy thrives. This

inequity in phonemic awareness manifests itself as the *Matthew Effect*, where the *rich-get-richer and poor-get-poorer*. Stanovich (1992) described his work on the *Matthew Effect* in reading development.

Children who begin school with little phonological awareness have trouble acquiring alphabetic coding skill and thus have difficulty recognizing words. Reading for meaning is greatly hindered... When word recognition processes demanded too much cognitive capacity, fewer cognitive resources are left to allocate to higher-level processes of text integration and comprehension...not a rewarding experience...less involvement in reading-related activities... delays the development of automaticity and speed at the word recognition level ...practice is avoided...Troublesome emotional sided effects begin to be associated with school experiences, and these become further hindrance to school achievement (p. 281)

There are many ways to educate children in phonemic awareness. Chapman (1996) stated that phonemic awareness can be developed through involvement in language-centered developmentally appropriate activities. This is supported by the International Reading Association. This association has taken the position that teachers of young children need to provide an environment that encourages play with spoken language as part of the broader literacy program. Other researchers believe that low-readiness children need direct, systematic, and intensive instruction in phonemic awareness (Adams, 1990). Consequently, the Dubuque Community School

System has adopted the Scholastic Phonemic Awareness Kit for kindergartners. The instruction consists of approximately 20 hours spread out over 13 weeks. I will be conducting an action research study to examine the effectiveness of this program.

Limitations

A limitation of this study is the action research design. This study is designed to understand what goes on in my classroom. By nature of action research, the findings of this study can not be generalized beyond the specific at-risk kindergarten classroom in a low income, downtown midwestern city. The one group pretest/posttest design which will be used in this study does not control for maturation and other factors. One factor includes the amount of time spent in a regular kindergarten program. Two of the children spend half day in a special needs classroom; while eleven children attend Title 1 kindergarten for an additional half day where other phonemic awareness activities take place.

There is a wealth of information pertaining to phonemic/phonological awareness. However, all articles pertaining to this study were not available. Some secondary sources were used because primary sources were not available.

Definitions

For purposes in this paper, the following terms will be defined:

Alphabetic principle: This term refers to an understanding that letters in written words stand for sounds in spoken words.

Graded series: This term refers to a series of reading books that are different for each grade level and are designed to match the children's age and achievement levels in linguistic complexity and content. (Adams, p.23)

Onset and rime: Onset refers to the consonant(s) at the start of a syllable; the remainder of the syllable is referred to as the rime. In *grade*, *gr* is the onset and *ade* is the rime.

Phonemes: Phonemes refer to the smallest units of sound that make up speech.

Phonemic awareness: This term refers to an understanding about the smallest units of sound, phonemes, that make up speech.

Phonics: This term refers to an understanding of sound/symbol relationships.

Phonological awareness: This term refers to an understanding about phonemes as well as larger units of

sound, such as syllables, onsets, and rimes.

Speech perception: This term refers to the skill of distinguishing speech sounds. The operational definition of speech perception for the study by McBride-Chang, et. al. (1997) was the ability to discriminate a single pair of stop consonants, /b/ and /p/, in the words *bath* and *path*. (p. 622)

Syllable: This refers to a unit of spoken sound consisting of a single uninterrupted sound consisting of one or more phonemes.

CHAPTER II

LITERATURE REVIEW

Benefits of Phonemic Awareness Training

Research has shown that there is a correlation between phonemic awareness and learning to read. There have been many studies since the 1980s that have substantiated this belief (Chall, 1996).

Subsequent studies have focused on the type of relationship: causal, reciprocal, or both. Some studies support the notion that phonemic awareness is a consequence of exposure to print and formal reading instruction (Ehri, 1979 in Yopp, 1992). There is also substantial evidence that at least some level of phonemic awareness is a prerequisite for learning to read (Stanovich, 1994).

Yopp (1992) substantiated that "... phonemic awareness is both a prerequisite for and a consequence of learning to read" (p. 697). Children must have a certain level of phonemic awareness in order to benefit from formal reading instruction, then reading instruction, in turn, will heighten awareness of language. Stanovich (1994) added that lack of phonemic awareness accounts for most of the problems in reading.

To make the greatest gains in reading, children need to begin school with some knowledge of phonemic awareness. Children with high phonemic awareness often come from rich literary environments, where rhymes, word games and songs prevail, along with access to read-aloud books that draw attention to alliteration, rhymes, and other word play. Children with low phonemic awareness may have had limited access to language play and stories; they may be developmentally delayed; or these children may have speech, hearing, or language handicaps. McBride, et.al. (1997) added that low speech perception, the simple skill of distinguishing sounds, is indicative of phonemic awareness difficulties. These children start school with a disadvantage. Fortunately, research has found that children can be trained in phonemic awareness (e.g. Yopp, 1992). Marie Clay (1979) found that six year-old children, who were not successful in beginning reading, could be taught to analyze sounds in words, thus phonemic awareness was added to her Reading Recovery Program (in Juel, 1999). Efficiency of instruction is important, especially for children at-risk for reading failure. There are different views on the amount and the type of phonemic awareness instruction for reading success.

Problems with Reading Approaches that
do not Encompass Phonemic Awareness

Some approaches to reading do not focus on phonemic awareness. One example is whole language. Most whole language advocates believe that phonics, as well as phonemic awareness, do not need to be taught in formal lessons. In actuality, many whole language advocates believe phonics should be taught as needed in the context of authentic reading and writing experiences. The problem cited with many whole language programs is that without a systematic approach in place needed concepts are not addressed. When there is too little emphasis on phonics, early readers tend to guess or skip over words.

Recent reports from California concerning whole language indicate that it has been tried, tested, and failed, for whole language was implemented state-wide in 1989 and ended with inadequate test scores. State officials have ordered a back-to-basics curriculum with direct teaching of phonemic awareness, systematic, explicit phonics, along with an emphasis on real literature and writing. It was noted that many teachers were not following a whole language program and that they did not receive aid in learning the new approach.

Whether the lower test scores were the result of whole language instruction or the result of other factors, such as large class sizes or increased poverty, state officials decided that something needed to be done. Increased support for phonemic awareness as a prerequisite for reading acquisition fits into California's new plan. They advocated teaching phonemic awareness, rather than just anticipating that this knowledge would develop.

Benefits of Direct Phonemic Awareness Instruction

The best and most efficient method to teach phonemic awareness supports direct instruction. Much research on phonemic awareness acquisition supports direct instruction methods, where sounds and words are isolated (Ball, E. & Blachman, B., 1991, Bryne, B. & Fielding-Barnsley, R., 1991).

Children need direct instruction because they can not acquire knowledge of reading naturally, as they do the spoken language (Lyon, 1998). Children need to think about words in a new way, not the conventional manner. When children think about *cat*, they naturally think about the animal. They do not think about the sounds that make up the word-/k/ /a/ /t/,

While most kindergartners have mastered the complexities of speech, they do not know that spoken language is made up of discrete words, which are made up of syllables, which themselves are made up of the smallest units of sound, called "phonemes," (Sensenbaugh, 1998, p.1).

Lyon (1998) added that "no one ever receives any 'natural' practice understanding that words are composed of smaller, abstract sound units" (p.16).

When children enter school with low phonemic awareness, they start school at a disadvantage. Intensive, explicit phonemic awareness is the most efficient way to help these children catch up, for there is not time to use a holistic method (O'Connor, et.al., 1995).

Current researchers agree that phonemic awareness "...is a general construct that consists of numerous dimensions" (Adams, 1990 in Snider, 1997, p. 204). Adams (1990) described five levels of phonemic awareness that could be assessed by various tasks:

- the ability to hear rhymes and alliterations
- the ability to do oddity tasks
- the ability to blend phonemes and syllables and to split syllables
- the ability to segment words
- the ability to manipulate (add, delete, or move) phonemes

Most researchers cite Adam's hierarchy of phonemic

awareness skills. However, there is not a consensus on which components need to be taught and to what extent.

Some direct instruction programs encompass many phonemic awareness components and others focus on one or just a few components. When children are taught just one component, such as blending, segmenting, or rhyming, transfer generally does not lead to other phonological task (O'Connor, Slocum, & Jenkins, 1993, in O'Connor et al., 1995). Spector (1995) found that inadequate approaches include the word family approach which does not introduce individual phonemes and the letter-sound correspondence when instruction is not provided in identifying words that share phonemes. However, Bryne and Fielding-Barnsley (1991) focused on one aspect of phonemic awareness, phoneme identity, in their study of preschoolers and kindergartners and received promising results. They found that phoneme identity is a stable and efficient construct and that there is no need to cover all the phonemes of the language.

A study by O'Connor, et al. (1995) which focused on *low skilled* kindergartners compared the effects of segmentation and blending instruction to a global array of instruction, including segmentation and blending, plus rhyming, isolating the first or last sound in words, and deleting or

substituting syllables. Results showed that the segmentation and blending treatment yielded similar outcomes to the global treatment. In addition, both groups "attained phonological insight broader than the combination of skills taught in their respective treatments..." (p. 213).

A wealth of research on phonemic awareness has resulted in diverse results (Richgels, D., Poremba, K., McGee, L., 1996, O'Connor, et. al. 1995). It is difficult to compare which constructs lead to the most efficient learning because of differences in philosophies and methods; differences in intensity of teacher training and size of instructional groups and time differences.

Much of the research on direct phonemic awareness training has occurred in small structured groups. For example, Bryne developed a phonemic awareness program, *Sound Foundations*, which includes small group instruction (4-6) for 12 weeks of lessons, with 20 minutes each day. Although Bryne piloted his program in a whole group situation as well, the best results were from the small group instruction method.

Problems with Direct Phonemic Awareness Instruction

Direct instruction in phonemic awareness is not only unnecessary, but is boring and ineffective. Juel (1998)

stated that "...exposure to nursery rhymes, word and rhyming games...in preschool and kindergarten, will do more to encourage decoding skills than formal instruction..." (p.2). Phonemic awareness activities need to involve meaningful activities. Yopp (1992) suggested that "...the use of written letters may distract (preschoolers and beginning kindergartners) students from the intent of the activity" (p. 702). Therefore, phonemic awareness should be taught, from the beginning, without the alphabetic principle, so the focus is on the sound. However, Adams (1990) wrote that better results were obtained when reading and spelling were taught concurrently because a connection to reading is essential. Chapman (1996) described a classroom where written language was *cultivated* by emphasizing real texts and authentic reading and writing activities and by using writing to develop word analysis skills. Bits and pieces of unrelated material is not beneficial.

Whole language proponents believe that direct instruction is not necessary because learning to read is as natural as learning to speak. Lyon (1998) found that many researchers believed that reading is an almost instinctive, natural process. Consequently, explicit training in phonemic awareness is not necessary "...because oral language skills

provide the reader with a meaning-based structure for the decoding and recognition of unfamiliar words" (p.17).

Benefits of Indirect Phonemic

Awareness Instruction

Many educators believe that phonemic awareness can be developed in a developmentally appropriate manner.

Yopp(1992) wrote that the teacher should first identify the specific phonemic awareness task, then the teacher must find a developmentally appropriate activity that is designed to draw attention to the sounds. Game-like activities, such as songs, guessing games, and riddles, are engaging to children.

Richgels, Poremba, and McGee (1996) agreed that children's emerging phonemic awareness can be facilitated "...in a meaningful manner that preserves children's initiative"

(p.634). They developed *What Can you Show Us?* activities.

The beginning point of *What Can you Show Us?* is student demonstration, where students show something they notice about the text which is to be read. After the shared reading, the teacher extends the children's observations and asks for additional demonstrations. This "...ensures that students will not miss aspects of print that are important for developing phonemic awareness." (Richgels, D., et al., p.641)

Findings by Castle, Riach, and Nicholson (1994)

indicated that small, but important gains in phonemic awareness were observed when instruction was part of a regular whole language program. These gains were considered important because of the snowball effect on later reading progress.

Activities were easy to fit into the curriculum and are interesting to students. Juel (1998) stated that it is important to keep children motivated to learn and to keep up their listening comprehension.

These phonemic awareness activities lend themselves easily to whole group participation, which is developmentally appropriate. Yopp (1992) cited the position statement of the National Association for the Education of Young Children (1986) in lending support to this opinion. "The activities should be conducted in group settings that encourage interaction among children. Children enjoy the social aspects of learning and often learn from one another. Language play is most appropriate in a social setting" (p. 702). Whole group activities work well, because it is difficult to devote a substantial amount of instructional time to small groups, which seems to be necessary for direct instruction groups.

Problems with Indirect Phonemic

Awareness Instruction

According to Adams (1990), the tendency to attend to individual phonemes is not triggered through sheer exposure. Unless it is explicitly taught, it seems to develop only with the successful acquisition of an alphabetic script. (Lieberman, Rubin Duques & Carlisle, 1985, in Adams, 1990).

Children need phonemic awareness to make sense of the alphabetic principle (Yopp, 1995). Olson (1993) stated that children need phonemic awareness to use their phonics knowledge to read words they have never seen before, but they can acquire phonemic awareness without a knowledge of phonics. Foorman (1998) found that first and second grade children made greater improvements in phonemic awareness when they received explicit instructions in alphabetic principle. Stahl and Murray (1994) cautiously suggested that learning the letter names seems to be necessary to separate an onset from a rime. Bryne and Fielding-Barnsley (1991) found that phonemic awareness and letter knowledge could be taught together, but this knowledge needs to be supplemented with instruction on how to use this knowledge. Training a child

in phonemic awareness requires more than exposure to games, songs, and activities.

CHAPTER III

ACTION RESEARCH STUDY

Introduction

The purpose of this action research study is to investigate the effect of The Scholastic Phonemic Awareness Kit on the development of phonemic awareness in kindergartners. This problem is significant because research has shown that some level of phonemic awareness is a prerequisite for learning to read. With a wide array of programs on the market, it is important to determine whether this program provides adequate preparation for these children. I hypothesize that kindergartners will achieve at a higher level when tested on phonemic awareness as a result of the Scholastic Phonemic Awareness Program. Phonemic awareness is describe operationally by its components: the ability to rhyme, blend, and segment words.

Method

Subject

Convenience sampling was used. The sample consists of thirteen children in an intact Title 1 kindergarten class in an at-risk early childhood center in a midwestern city.

Selected school statistics compiled for a 1997 at-risk grant include: 38% of children live with both mother and father; 23% of households had no employment in the home; 21% mothers and 22% fathers did not complete high school, nor receive a GED diploma; 24% homes receive a daily newspaper; 18% homes have a computer; 83% have cable television. A primary risk factor for these students is poverty. Secondary risk factors include parental substance abuse, physical abuse and neglect, witnessing violence, mental health issues of parents, involvement of parents in the criminal justice system, less stability in places of residence, in family composition, and in employment history. This school is composed of four half-day regular education kindergarten programs, four half-day extended day Title 1 kindergarten programs, and one full day special needs kindergarten class.

The children in the study qualified for the extended day Title 1 kindergarten by scores on the Dubuque Community School Kindergarten Readiness Test or by teacher recommendation. Eleven children are from the regular education class and two children are from the special needs kindergarten class.

Instrument

Assessment was done by using the Scholastic Phonemic

Awareness Kit (see Appendix) as a pretest in September, 1998 and as a posttest in January, 1999. The assessment consisted of initial sounds, final sounds, rhyming words, blending, clapping syllables, and segmenting. Data on reliability and validity were not available. According to Moats and Shefelbine (1997), the program consultants, the pre-assessment is used to determine where students should begin the program. "If a child does well on all sections of the assessment except the segmentation tasks, you may wish to begin instruction with Lesson 20. All other children scoring below 90% should begin with Lesson 1" (p. 8). The test and the instructions for test administration are provided in the appendix. The pretest and posttest were administered individually, rather than to whole or small groups.

Design and Procedure

The single group pretest/posttest design was used in this action research study. This design does not account for maturation. Confounding variables include: eleven children attend a regular education morning session and two children attend a special needs morning session; one child comes from a limited English speaking home; consequently, the classroom teacher provides additional phonemic awareness activities for

this child.

The Scholastic Phonemic Awareness Kit "...consists of 20 hours of instruction spread out over 13 weeks" (p.6). Each of the 66 lessons include three activities from a range of phonemic awareness tasks. It is recommended to "...keep the tone fun and informal. It is important that children are engaged in playing with language..." (p.5). The Scholastic Phonemic Awareness Kit is an eclectic program, which includes songs, games, and interesting activities using rhyming, alliteration, blending, etc. but also includes systematic drills, made more enjoyable by the puppets, Gribbet, who can blend words, and Quacker, who can segment words. In this classroom, the program was taught to the whole group and was used as a supplement to the Macmillan Early Reading series.

In this study, the teacher did not cover 66 lessons. To complete this program in the recommended time period, 20 minutes per day needs to be devoted to each lesson which contains three activities. The time spent on phonemic awareness lesson was inconsistent and varied from zero to 20 minutes per day. Twenty five lessons were completed in thirteen weeks. The activities in the Scholastic Phonemic Awareness Kit were not used until October, although other phonemic awareness activities, such as rhyming songs and

games, were introduced earlier and continued throughout this study.

Results

The following table represents pretest-posttest results of the Scholastic Phonemic Awareness Kit.

Table I

Mean Performance Scores on Scholastic Phonemic Awareness Kit

| Topics | Items | Mean | |
|--------------------|-------|---------|----------|
| | | Pretest | Posttest |
| Initial Sounds | 3 | 0.85 | 1.85 |
| Final Sounds | 3 | 1.23 | 2.00 |
| Rhyming Words | 3 | 0.92 | 1.62 |
| Blending | 4 | 0.38 | 1.54 |
| Clapping Syllables | 4 | 2.15 | 2.46 |
| Segmenting | 4 | 0 | 0.23 |
| Total | 21 | 5.46 | 11.40 |

Results of Assessment pretest-posttest indicate that progress was made in all areas. The range of total scores on the pretest was from zero to 11 out of a total score of 21

with a mean of 5.46. The range on the posttest was from two to 17 out of a total score of 21 with a mean of 11.4. The greatest increase in mean between the pretest and posttest was in blending, initial sounds, final sounds, and rhyming words. There was minimal increase in mean between the pretest and posttest in clapping syllables and segmenting.

Discussion

For the purposes of this study, six topical areas were evaluated. These topics were initial sounds, final sounds, rhyming words, blending, clapping syllables, and segmenting. These six areas were represented in the activities provided by the Scholastic Phonemic Awareness Kit.

Pretest scores in the rhyming section are an indication of the poor phonological preparation of these children before they entered kindergarten. Moats and Shefelbine (1997) state that most three or four year olds can recognize rhymes.

The SPA assessed the discrimination of rhymes, by asking children to look at three pictures and determine which two rhyme. McBride-Chang (1997) stated that this type of task taxes memory and involves multiple comparisons. Since two children scored zero out of three on the rhyming section of the posttest and four children scored one out of three

even though the majority of the rhyming activities were completed, it is evident that whole group instruction was not adequate for all.

The mean on the SPA blending pretest and posttest increased from .38 out of a total score of four to 1.54. Although the posttest mean is low, this was an area of greatest increase. Additional activities in blending are needed.

The mean on the SPA clapping syllables pretest and posttest increased from 2.15 out of a total score of four to 2.46. In this case, the posttest mean is high, but the increase was minimal. A possible explanation for the high pretest mean is the class worked on clapping names prior to the beginning of the SPA program in October.

Thirteen children scored zero out of a total score of four on the SPA pretest segmenting section and 11 children scored zero on the posttest, where children were asked to segment words with two to four phonemes. A possible reason for these low scores is that most of the segmenting lessons in Scholastic Phonemic Awareness Kit had not been completed, plus the lessons that were completed consisted of isolating the first sound only. Another explanation may be that most normal readers are unable to consistently count the phonemes

in a word until the end of first grade (Adams, 1990).

Until all 66 lessons are completed, it is not possible to determine whether this particular whole group activities program will adequately prepare the majority of children. The decision must be made if the children who have not progressed adequately should continue in this program, or if a change is necessary.

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to survey the literature and report on an action research study to examine the effectiveness of phonemic awareness training, Scholastic Phonemic Awareness Kit, for 13 kindergartners in an at-risk early childhood center. The study addressed four questions to accomplish this purpose:

1. What are the benefits of a phonemic awareness program over a whole language program?

This study determined that benefits can be derived from participating in a phonemic awareness program over a whole language program. The principal reason is that all important aspects of phonemic awareness will be attended to if a systematic approach to phonemic awareness is present. In a whole language program, which does not contain a systematic approach to phonics nor phonemic awareness, it would be easy to overlook essential aspects. Since an abundance of research has shown that phonemic awareness has a casual relationship to reading, the acquisition of these skills is too important to be left to chance. An enigma is that there

is conflicting research on which phonemic awareness components need to be taught.

2. Of the phonemic awareness programs, direct or indirect instruction, which is the best?

This study determined that there are benefits to both phonemic awareness programs that provide direct instruction and to programs that provide indirect instruction. Benefits of direct instruction include: accountability, where a systematic and sequential approach includes all components; reliability, where much research has shown the effectiveness of direct instruction; efficiency and ease of instruction.

Benefits of indirect instruction include the following: phonemic awareness activities that are interesting and amusing for children; use of developmentally appropriate practices, such as employing an integrated curriculum and providing group settings that promote social interaction among children; ample time to fit activities into schedule, and ease of instruction.

"What may be critical is that phonemic awareness be in place early so that children can benefit from whatever kind of instruction they receive..." (Griffith, P., et.al. 1992, p. 90). Chall(1996) found that a program's success is due

more to its newness than to its nature.

3. What are the problems for direct and indirect instructional programs?

Even with the many benefits that are associated with each program, these programs each have problems. Criticism of direct instruction includes instruction that is boring, unnecessary and not related to meaningful activities. Criticism of indirect instruction includes the belief that mere exposure to songs, games, etc. is not enough and is not efficient. Explicit instruction on phonemic awareness components, plus how to use this knowledge is essential.

4. What results were achieved in the action research study using Scholastic Phonemic Awareness kit?

The action research study showed that there were benefits to using the Scholastic Phonemic Awareness Kit. The songs, games, and activities in the program allow whole group participation and are time efficient, interesting, developmentally appropriate, and instructionally friendly. The systematic drills allow accountability and reliability. The assessment indicated that progress was made in all areas.

Conclusion

1. From the literature review, it was concluded that

phonemic awareness has both a casual and reciprocal relationship to reading.

2. From the literature review, it was concluded that it has been determined that one type of phonemic awareness instruction is not better than any others.

3. From the literature review, it was concluded that it is necessary to consider the level of students' phonemic awareness, available instructional time, and available classroom assistance before choosing a given program.

4. From the action research study, it was concluded that students performed best in the areas of initial sounds, final sounds, and rhyming words.

5. From the action research study, it was concluded that both direct and indirect instruction should be used.

Recommendations

Based on a review of the literature and my action research study, the following recommendations are suggested.

1. Phonemic awareness training must be a vital part of any reading/language arts program.

2. Early childhood educators should expose young children to an environment that encourages play with spoken language and includes holistic, integrated phonemic awareness

activities, as part of a developmentally appropriate literacy program.

3. Children should be assessed early. Small group instruction should be considered along with the possibility of direct, systematic, and intensive instruction in phonemic awareness for the children in need.

4. All schools should incorporate phonemic awareness games and activities into preschool curricula.

5. Parents should have greater involvement in the early childhood program, by being provided with developmentally appropriate activities that can be used with their children at home.

6. Teacher training is vital to a successful program. The importance of phonemic awareness to reading needs to be emphasized.

7. Full-day kindergarten for all children would provide the time needed for phonemic awareness activities.

8. The assessment from The Phonological Awareness Handbook for Kindergarten and Primary Teachers, which has reliability and validity data, should replace the assessment from Scholastic Phonemic Awareness Kit.

REFERENCES

- Adams, M. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Ball, B. & Blachman, B. (1991). Does phoneme segmentation training in kindergarten make a difference in early word recognition and developmental spelling? *Reading Research Quarterly*, 26, 49-65.
- Bryne, B., & Fielding-Barnsley, R. (1991). Evaluation of a program to teach phonemic awareness to young children. *Journal of Educational Psychology*, 4, 451-455.
- Bryne, B., Freebody, P., Gates, A. (1992). Longitudinal data on the relations of word-reading strategies to comprehension, reading time, and phonemic awareness. *Reading Research Quarterly*, 27, 141-151.
- Castle J., Riach, J., Nicholson, T. (1994). Getting off to a better start in reading and spelling: The effects of phonemic awareness instruction within a whole language program. *Journal of Educational Psychology*, 86, 350-359.
- Chall, J. (1996). *Learning to read: The great debate*. New York. McGraw-Hill.
- Chapman, M. (1996, January). The development of phonemic awareness in young children: Some insights from a case study of a first-grade writer. *Young Children*, 31-37.
- Foorman, B., Fletcher, J., Francis, D., Schatschneider, C. (1998). The role of instruction in learning to read: Preventing reading failure in at-risk children. *Journal of Educational Psychology*, 90, 37-55.
- Griffith, P., Klesius, J., & Kromrey, J. (1992). The effect of phonemic awareness on the literacy development of first grade children in a traditional or a whole language classroom. *Journal of Research in Childhood Education*, 6, 85-92.
- Lyon, G. (1998). Why reading is not a natural process. *Educational Leadership*, 55, 14-18.

McBride-Chang, C., Chang, L., Wagner, R., (1997). Growth modeling of phonological awareness. *Journal of Educational Psychology*, 89, 621-630.

Moats, L., Shefelbine, J. (1997). Phonemic Awareness Teacher's Guide. New York: Scholastic Inc. Instructional Publishing Group.

Morphett, M., Washburne, C. (September, 1930-June, 1931). When should children begin to read. *Elementary School Journal*, 31, 496-503.

O'Connor, R., Jenkins, J., Slocum, T. (1995). Transfer among phonological tasks in kindergarten: Essential instructional content. *Journal of Educational Psychology*, 87, 202-217.

Richgels, D., Poremba, K., McGee Gee, L. (1996). Kindergartners talk about print: Phonemic awareness in meaningful contexts. *The Reading Teacher*, 49, 632-642.

Snider, V. (1997). The relationship between phonemic awareness and later reading achievement. *Journal of Educational Research*, 90, 203-210.

Spector, J. E. (1995), Phonemic awareness training: Application of principles of direct instruction. *Reading and Writing Quarterly: Overcoming Learning Difficulties*, 11, 37-51.

Stahl, S., Murray, B. (1994). Defining phonological awareness and its relationship to early reading. *Journal of Educational Psychology*, 86, 221-234.

Stanovich, K. (1993-4). Romance and reality. *The Reading Teacher*, 47, 280-291.

Strickland, D. (1998). What's basic in beginning reading? *Educational Leadership*, 55, 6-10.

Yopp, H. (1995). Teaching reading. *The Reading Teacher*, 48, 538-543.

Yopp, H. (1992). Developing phonemic awareness in young children. *The Reading Teacher*, 45, 696-703.

Web Sites

<http://www.ernweb>
Juel, C.

<http://www.indiana.edu/~eric-rec/ieo/digests/d119.html>
Sensenbaugh, R.

<http://www.backgroundbriefing.com/mcguffee.html>
Weiner, N. (1991)

APPENDIX**ASSESSMENT FROM SCHOLASTIC PHONEMIC AWARENESS KIT**

Appendix

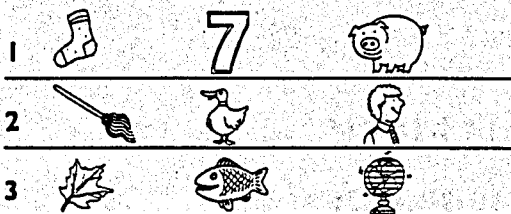
Assessment from Scholastic Phonemic Awareness Kit

Assessment

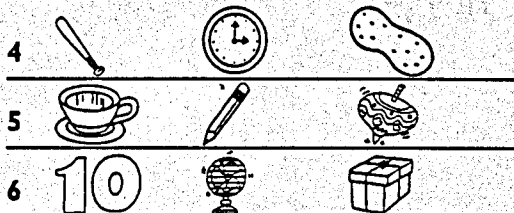
PART A: Initial Sounds/Final Sounds/Rhyming Words

Child's Name _____ Date _____

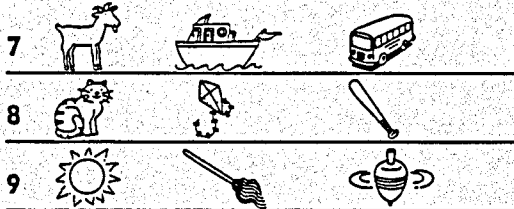
Ask the child to circle the two pictures in each row whose names begin with the same sound. Begin by having the child say aloud each picture name.



Ask the child to circle the two pictures in each row whose names end with the same sound.



Ask the child to circle the two pictures in each row whose names rhyme.



Assessment

PART B: Blending/Clapping Syllables/Segmenting

Child's Name _____ Date _____

Tell the child that you are going to say a word slowly. Have the child listen closely to see if he or she can figure out the word. For example, say /s/ /a/ /d/. Blend the sounds together, and then state the word 'sod'. Now have the child blend the following sets of sounds and state each word formed. Circle the words the child correctly states.

- 1 /s/ /e/ [see]
 2 /m/ /k/ /d/ [make]
 3 /t/ /a/ /n/ [tan]
 4 /t/ /l/ /p/ /s/ [tips]

Tell the child that you are going to say some words. You want the child to clap to show you how many syllables, or word parts, he or she hears in each word. For example, if you say apple, the child is to clap two times. Demonstrate this for the child. Continue with the following words. Say the words slowly. Write the child's response to each word on the lines below.

- 5 pencil _____ [2]
 6 cat _____ [1]
 7 book _____ [1]
 8 elephant _____ [3]

Now tell the child that you are going to say a word and you want him or her to say it slowly, sound by sound. For example, if you say the word set, you want the child to say /s/ /e/ /t/. Demonstrate this for the child. Then have the child segment the following words. If the child needs to use counters, allow him or her to do so. Circle the sounds the child correctly identifies.

- 9 so [s/ /o/]
 10 like [l/ /i/ /k/]
 11 mad [m/ /a/ /d/]
 12 cups [k/ /u/ /p/ /s/]