

DEVELOPMENT OF AN INSERVICE PROGRAM ON
PHONEMIC AWARENESS FOR TEACHERS AND
EARLY CHILDHOOD EDUCATORS

CENTRE FOR NEWFOUNDLAND STUDIES

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DEVELOPMENT OF AN INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

by

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ABSTRACT

This thesis reviews the research on Phonemic Awareness and Inservice Training Programs and culminates in the development of an Inservice Program on Phonemic Awareness. The research on phonemic awareness reviewed studies dealing with the correlation between phonemic awareness and reading, the predictive ability of phonemic awareness on reading ability, the effect of training in phonemic awareness skills on reading achievement and the levels of phonemic awareness. The research on inservice training programs reviewed studies dealing with different types of inservice programs, characteristics of effective inservice programs, and some models of staff development.

An inservice training program was developed for teachers and early childhood educators. The inservice is comprised of four two-hour sessions, designed to be presented over a period of three months. The inservice participants are required to read supplemental articles between sessions, observe their peers using the strategies discussed in the training sessions

either in person or through videotape , and administer an assessment to their students both before and at the end of the inservice. The facilitator is required to provide videotapes of several of the activities being used with children and is encouraged to provide examples of some of the activities to show the participants. Definitions and theoretical background are provided for both the facilitator and the participants. An evaluation of the inservice is provided for the participants to complete at the end of the inservice training program.

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CHAPTER ONE

OVERVIEW

Introduction

Prevention of reading failure is an issue of importance for educators and parents. A child who is at risk of reading failure does not rely, or else places too much reliance, on syntactic, semantic or graphophonic cues. Teaching these children how to read has resulted in much debate over the best method to use (i.e., "phonics", "look-and-say" or "whole language") and the debate continues.

Much research in the area of reading has shown that one of the first skills needed to facilitate reading, and deter reading failure, is that of phonemic awareness (Adams, 1990; Calfee, Lindamood & Lindamood, 1973; Cunningham, 1990; Ehri, 1979; Juel, Griffith & Gough, 1986; Perfetti, Beck, Bell & Hughes, 1987; Spector, 1992). Acquisition of various phonemic awareness skills are related to reading and spelling achievement, regardless of the method of instruction used in the classroom. Research has also shown that performance on

phonemic awareness measures is a better cognitive predictor of early reading acquisition than measures of intelligence, vocabulary or listening comprehension (Bradley & Bryant, 1983; Grundin, 1994; Spector, 1992; Stanovich, Cunningham & Cramer, 1984; Stanovich, Cunningham & Feeman, 1984; Tunmer & Nesdale, 1985). In other words, children who perform poorly on phonemic awareness tests, usually perform poorly in reading and spelling achievement. These phonemic awareness skills can be taught; however, they need to be taught in an orderly sequence (Ball & Blachman, 1991; Byrne & Fielding-Barnsley, 1991; Davidson & Jenkins, 1994; Lewkowicz & Low, 1979; Lie, 1991; Lundberg et al, 1988; Murray, 1994). Furthermore, there have been suggestions, such as, using Elkonin boxes and changing the words in familiar songs to focus on the sounds in words, for teachers to use in helping to develop phonemic awareness in their students (Yopp,1992; Lewkowicz, 1994; Griffith & Olson, 1992)

Even though much has been learned from these studies regarding phonemic awareness, many educators are not aware of the importance of this skill for their students. There is a

need for inservicing in this area. Although teachers receive courses in the area of reading development in their undergraduate degree, they need to continue professional development throughout their careers in order to keep on top of new issues, innovations and theories. Furthermore, early childhood educators receive no training in reading skills and only limited training in pre-reading skills. Research has shown that effective inservice training can improve school practices and student learning (Conley, 1983; Griffin, 1983; Guskey, 1986; Joyce & Showers, 1983; Little, 1982; Sparks & Loucks-Horsley, 1989; Wade, 1984/1985).

Statement of the Problem

Phonemic awareness is crucial to beginning reading, and conceivably helps in preventing reading failure, since it assists reading acquisition. "If children are to realise and make use of the alphabetic relationship between spoken and written words they must first recognize that spoken words can be broken up into phonemes." (Andrews, 1992, 90). However, phonemic awareness does not seem to develop naturally for all

children (Dallas, 1992) because the abstract composition of the phonemes convey no meaning and are thus difficult to learn. Children have great difficulty attending to these abstract units as they tend to focus on the meaning of the words. For many children considered to be "at-risk" of reading failure, phonemic awareness must be acquired to facilitate reading acquisition.

The current study proposes to analyse research on phonemic awareness and inservice training in order to develop an inservice program on Phonemic Awareness for kindergarten, grade one and special education teachers and early childhood educators. No courses or inservices have been developed in this area and teachers and early childhood educators must embark on their own research to gain information. This study will help fill this gap by researching phonemic awareness and effective inservice programs to develop an inservice in this area.

Developing an inservice on phonemic awareness for teachers and early childhood educators is important for teaching beginning reading skills. Teachers and early

childhood educators interact with children who have difficulty learning how to read and these educators need knowledge of the best ways to teach reading. Many studies have investigated methods of inservice programs (Bos, 1995; Epstein, Lockard & Dauber, 1991; Hendrickson et al, 1993; Sparks, 1986; Todnem & Warner, 1994; Wiggins, 1994) and while there are some differences about how inservices should be organized, there are many similarities throughout the research which will be used to design this inservice.

The proposed inservice program is significant in that it should provide support for educators working with children who are experiencing difficulty, or who are predicted to have difficulty, learning to read. Providing educators with the knowledge of, and methods to teach phonemic awareness should contribute to a solution to the problem of reading difficulties with a number of children. Phonemic awareness skills are best taught to young children before or at the same time that formal reading instruction begins. It is important to provide activities to enhance the procurement of these skills before any reading difficulties arise.

This study should also help to survey and synthesize research previously conducted on phonemic awareness and effective inservice programs. This will contribute to the developing knowledge in reading failure prevention and the elements of effective inservice.

Furthermore, this study could influence the content of courses for teachers and early childhood educators to educate them in the area of phonemic awareness.

Definitions of Terms and Theoretical Background

For some educators, one of the most interesting findings of research on reading is that phonemic awareness is a crucial skill in the acquisition of reading and spelling. The term "phonemic awareness", also called "phonological awareness", is generally used to denote the ability to perceive spoken words as a sequence of sounds (Spector, 1992), and the ability to manipulate these component sounds (Griffith & Olson, 1992). It is important to note that phonemic awareness is not synonymous with phonics. Phonemic awareness is an essential skill needed before phonics can be acquired. "Phonics is the

association of phonemes, or sounds, with graphemes, or symbols" (Collins & Cheek, 1989: 283). Phonemic awareness skills involve the ability to manipulate different parts of the sounds in words. Phonemic awareness does not consist of learned spelling-to-sound correspondences and it is not sounding out words - it is an understanding of the structure of spoken language (Griffith & Olson, 1992). As Stahl (1992) states:

Only by understanding that spoken words contain phonemes can one learn the relationships between letters and sounds. (p.621).

Many of the studies which investigate phonemic awareness in young children, measure it through word identification of words in lists. Word identification involves reading a word and understanding its meaning (Andrews, 1994). Grundin (1994) has criticized these studies for only measuring children's word identification skills and not measuring children's reading ability.

But what is reading? Smith (1971) states that "reading is less a matter of extracting sound from print than of bringing meaning to print" (p.2) and according to Goodman

(1994) reading is a meaning-seeking task which involves the application of all cueing systems (i.e., semantic, syntactic and graphophonic). If this is the case, then measuring children's word identification ability does not measure reading ability since word identification mainly utilizes the graphophonic cueing system. But there are other theories of reading and beginning reading acquisition which state that word identification is the first step in learning to read (Adams, 1990; Ehri, 1984).

The theory upon which this study is based is the Automatic Processing theory which states that we have limited attentional capacity which is divided among different tasks performed simultaneously (Andrews, 1992). Therefore, some of these tasks, such as knowledge of the sound-letter relationship and word identification, must become automatic. For skilled readers the process of word identification is automatic thereby enabling the reader to focus attention on comprehending the text and relating it to existing schema.

One of the first skills needed to automatize word identification is an awareness of the phonemes of spoken

words. When children become aware of the phonemes in words, they need to learn the relationship between these phonemes and the alphabet (i.e., the alphabetic principle). Ehri (1991) has stated that children progress through four developmental stages in acquiring word-analysis and word-recognition ability: the logographic stage, the transitional stage, the alphabetic stage, and the orthographic stage. Thus, the transition from logographic to alphabetic is facilitated by phonemic awareness (Dallas, 1992). Developing phonemic awareness is needed to enhance automatic word recognition which enables the reader to comprehend or making meaning from text.

Phonemic awareness has also been shown to have an influence on spelling (Ball & Blachman, 1991; Davidson & Jenkins, 1994; Juel, Griffith & Gough, 1986; Lie, 1991). Spelling signifies the order in which letters are written to form words. Writing, on the other hand, involves expressing thoughts, ideas or meaning through written symbols (i.e., letters). Writing in the primary grades involves children using invented spelling. When children use invented spelling

they sound out and segment words and print the letters for the sounds they hear. During the process of inventing spelling children utilize skills involved in phonemic awareness. The ability to perceive spoken words as a sequence of sounds (Spector, 1992) supports children, in their early writing, with invented spelling.

Investigations into beginning reading and spelling development have provided insight into phonemic awareness. Whether these skills are a prerequisite, a facilitator, a consequence of or an incidental correlate of reading ability, phonemic awareness training influences reading and spelling development (Ehri, 1979). Limited exposure to print and practice opportunities delays the development of automaticity at the decoding level and much of their attention must go into word recognition rather than comprehension of text (Ball & Blachman, 1991). For these children, development of phonemic awareness requires intervention and "heightening phonemic awareness may help prevent some children from experiencing early reading and spelling failure" (Ball & Blachman, 1991: 52).

The research studies of phonemic awareness finds that it is a precursor of reading and spelling. Therefore, teaching in this area in the hopes that it will facilitate reading and spelling acquisition, would be most effective during the preschool age before formal reading and spelling instruction commences. In other words, training should take place in preschool or early Kindergarten.

Teaching strategies have been developed in teachers and early childhood educators during preservice education, graduate studies, independent reading and ongoing inservice and professional development. Researchers are continually developing new methods and theories on how children learn to read. Educators need to keep pace with the changes in methodology in the area of reading. After the initial preservice education they rely very heavily on opportunities to upgrade their teaching skills through inservice programs. Many educators tend to remain in their positions for a longer time and they need to be supported in their teaching through ongoing professional development (Guskey, 1986; Hendrickson, O'Shea, Gable, Heitman & Sealander, 1993). Knowledge will

continue to advance and this knowledge "...must find it's way into staff development activities..." (Epstein, Lockard & Dauber, 1991). Inservice training has become one of the most important and powerful ways to assist educators (Fenstermacher & Berliner, 1985).

Inservice training and staff development are terms used in the research literature. Hendrickson et al (1993) defined inservice education as:

(a) a process through which educators maintain and update their knowledge and professional expertise; (b) an opportunity to examine, to enhance, and to redefine professional responsibilities; (c) a vehicle for establishing and evaluating educational goals; (d) a mechanism for networking and for resource development; and (e) a context for promoting self-assessment and job enhancement. (p.31-32).

Burke, Heideman & Heideman (1990) define staff development as follows:

Inservice education is only one part of staff development, being almost exclusively informational in nature. In contrast, staff development goes beyond the informational stage; it involves adaptations to change with the purpose of modifying instructional activities, of changing teacher attitudes and improving student achievement. (p.4).

The proposed inservice program provides information, to

"modify instructional activities", to "change teacher attitudes" and to "improve student achievement" even if the program will be labelled an inservice as opposed to a staff development program. For the purpose of this study, the terms inservice, workshop and staff development will be used interchangeably.

There are many different formats inservice programs may take and many variables that influence the effectiveness of them. Inservice programs must be based on models of adult learning and designed to encourage transfer of training from the inservice to the classroom by "helping the learner learn how-to-learn rather than merely transmitting content." (O'Brien, 1992:422). O'Brien also states that the following components maximize inservice training effectiveness:

(a) a diagnostic/prescriptive phase to build awareness within the teachers of the need for change, (b) presentation of theory/concepts to give teachers the background on what it is that they are to learn and why (i.e., its outcome in terms of improved teaching/learning relative to the cost of change), (c) modeling or demonstrations by skilled trainers of the techniques and behaviors trainees are to acquire, and (d) practice under simulated conditions with feedback such as microteaching and role playing. (p. 422-423).

This interpretation of staff development is similar to the

one proposed by Burke, Heideman & Heideman(1990) in that they both indicate changing teachers behaviors and/or instructional practices. Clearly, there are different definitions and interpretations of inservice and staff development. For the purpose of this research, inservice training involves not only passing on information, but trying to change the attitudes and behaviors of teachers in order to improve student achievement.

While there is an abundance of research on how children read and the benefits of teaching phonemic awareness to children, for this inservice prgram to be useful to teachers, it must be explained to them in "...specific, manageable, and comprehensible teaching strategies and procedures..." appropriate for the current curriculum. (Gersten, Morvant & Brengelman, 1995: 55). But we must remember the major goal of inservice training is to increase student learning and achievement.

Limitations of the Study

This study is based on only one type of data collection strategy, namely document review. This reliance on only one

type of data collection makes triangulation more difficult to attain. However, by thoroughly researching the areas of phonemic awareness and inservice training through various articles and books, it is expected that a variety of data will be collected to allow for triangulation.

CHAPTER TWO
REVIEW OF THE LITERATURE

PHONEMIC AWARENESS

Introduction

As children begin to learn to read, they need to be aware that words can be broken up into phonemes that are represented by the letters of the alphabet. Adams (1990) contends that preschoolers who are given training in phonemic awareness display significant acceleration in their later acquisition of reading. Bradley and Bryant (1983) conclude that children's awareness of rhyme and alliteration has a powerful influence on their eventual success in learning to read and spell. Calfee, Lindamood and Lindamood (1973) conclude that simple phonological skills, such as using coloured blocks to represent phonemes heard in two- or three-phoneme words, are significantly related to reading and spelling performance through high school. Cunningham (1990) found there was significant improvement in reading achievement for

Kindergarten and first grade children who received instruction in phonemic awareness. Perfetti, Beck, Bell and Hughes (1987) found that the ability to blend phonemes into words facilitates later reading, and that phonemic knowledge and learning to read are mutually supportive.

In most of the research supporting phonemic awareness, reading is measured by the ability to read words in decontextualized texts. Some studies measure phonemic awareness by performance on a wide range of tasks, for example, rhyming (Stanovich, Cunningham & Cramer, 1984), phoneme identity (Byrne & Fielding-Barnsley, 1990; Lie, 1991), sequential analysis (Lie, 1991), segmenting words into component sounds (Ball & Blachman, 1991; Byrne & Fielding-Barnsley, 1990; Calfee, Lindamood & Lindamood, 1973; Cunningham, 1990; Davidson & Jenkins, 1994; Liberman, Shankweiler, Fischer & Carter, 1974; Spector, 1992; Tunmer & Nesdale, 1985), segmenting words into syllables (Calfee et al., 1973; Liberman et al., 1974), blending phonemes into words (Cunningham, 1990; Davidson & Jenkins, 1994; Perfetti et al., 1987), saying words with target sounds deleted (Spector,

1992; Stanovich, Cunningham & Cramer, 1984), producing invented spellings (Spector, 1992), isolating initial, medial and final sounds (Stanovich et al., 1984), and explicit instruction of how and when to use phonemic awareness (Cunningham, 1990; Davidson & Jenkins, 1994). The general findings of these studies indicate that students who enter reading instruction unable to perform phonemic awareness tasks, experience less success in reading than students who score high in phonemic awareness when instruction begins. These findings are consistent with models of reading acquisition that emphasize the role of the alphabetic principle during the initial stages of beginning reading (Spector, 1992).

One such model proposed by Ehri (1991) suggests that children progress through four developmental stages in acquiring word-analysis and word-recognition ability:

1. the logographic stage in which children use visual context or graphic features to read words (for example, reading "McDonalds" by looking at the logo).

2. the transitional stage from logographic to beginning

alphabetic, in which children begin to read words by shifting from visual context and specific letter associations to use of the alphabetic principle (the initial sound /c/ in cat is associated with the letter c)

3. the alphabetic stage, in which children rely on letter-sound or grapheme-phoneme relationships to read words (cat is sounded out and blended using a phonological recoding process that accesses the child's mental lexicon)

4. the orthographic stage, in which children use the alphabetic principle, predictable letter patterns, groups with shared letter sequences and consistent pronunciations (hat, fat, mat) and analogy (-ain in rain to read the new word train) to read.

Thus, the transition from logographic to alphabetic is facilitated by phonemic awareness (Dallas, 1992).

Correlation between phonemic awareness and reading

Some research has shown that children who are able to read possess phonemic awareness skills and these skills are directly related to reading ability (Bradley & Bryant, 1983;

Calfee et al., 1973; Perfetti et al., 1987). Bradley & Bryant (1983) hypothesized that children's awareness of rhyme and alliteration has an effect on reading and spelling ability. This study combined two different methods of data collection- longitudinal and empirical. The longitudinal method involved measuring children's skills at sound categorization before they start to read and the empirical method involved intensive training of a subsample of children, on sound categorization and/or conceptual categorization. Three hundred and sixty-eight four and five year olds were tested. A high correlation was found between the initial sound categorization scores and the children's reading and spelling over three years. Also, intensive training in sound categorization in conjunction with the alphabet, affects progress in reading and spelling. Bradley and Bryant concluded that the awareness of rhyme and alliteration has a tremendous influence on children's success in learning to read and spell.

Calfee, Lindamood & Lindamood (1973) tested students from Kindergarten to Grade 12 on their ability to match coloured blocks to represent either the phonemes or syllables in a word

provided orally by the examiner. The results found that there was a substantial correlation between performance on the auditory-phonetic test and reading ability, as measured by the Wide Range Achievement Test. The major implication of the findings is that these relatively simple phonological skills, such as using coloured blocks to represent phonemes heard in two- or three-phoneme words, are significantly related to reading and spelling performance through high school. The data suggests that there is a need for more attention (to be given) to the development of phonological skills in the early grades, and to continue training on these skills at the syllable level until mastery.

A study which found that phonemic awareness skills has an influence on reading was conducted by Perfetti, Beck, Bell & Hughes (1987). They tested 82 first-grade children four times throughout the year on their ability to blend phonemes and their ability to delete and tap out phonemes in words. The children received reading instruction in either a basal reader series, which did not involve direct phonics instruction, or by systematic direct code instruction, which directly teaches

letter-sound correspondences and blending. The results found that the ability to blend facilitates later reading. They concluded that phonemic awareness and learning to read are mutually supportive.

Phonemic awareness skills predicts reading ability

Development in phonemic awareness can be used to predict later reading ability. According to Spector, 1992; Stanovich et al., 1984; Tunmer & Neesdale, 1985, phonemic awareness is a more powerful predictor of literacy acquisition than more generalized measures of intelligence. Tunmer & Nesdale (1985) conducted a study in Australia of 63 first-grade children with a mean age of 6 years and 2 months. This study investigated Grade 1 children who were receiving their first year of formal schooling since Kindergarten was not part of Australia's school system. The aim of the study was to determine the nature of the relationship between phonological awareness and learning to read. The children were administered tests of verbal intelligence, phonemic segmentation ability and reading achievement. The phonemic segmentation test required the

children to tap out the number of phonemes in words and pseudowords spoken by the experimenter after two examples were demonstrated. Reading achievement was assessed through real word decoding, pseudoword decoding, and reading comprehension. The results indicated: (a) phonological awareness is a necessary, but not sufficient condition for the acquisition of phonological decoding because there were no children who performed poorly on phonemic segmentation but performed well on decoding; (b) phonological awareness affects comprehension proficiency indirectly through phonological recoding; (c) the development of phonological awareness is not greatly affected by method of reading instruction (i.e., decoding vs nondecoding instruction) and (d) verbal intelligence was weakly correlated with tests of reading achievement. These findings suggest the need for instruction that is specifically designed to increase the phonemic segmentation ability of those students who are developmentally delayed in this ability.

The degree to which phonemic awareness is related to reading achievement may depend on the type of task used to

measure phonemic awareness. In order to determine the predictive ability of ten phonemic awareness tasks on subsequent reading ability, Stanovich, Cunningham & Cramer (1984) administered ten phonological awareness tasks, one a day, for approximately 10 minutes a day to 49 Kindergarten students with a mean age of 6 years 2 months. The tasks were conducted in May and the subsequent reading ability was assessed at the end of the following school year. The experimental tasks were preceded by three to five practice trials to ensure that the child understood the task. All tasks were administered orally. The types of phonological awareness tasks administered and the order of presentation was as follows:

- (1) rhyme supply - provide a word that rhymes with the target word
- (2) rhyme choice - choose 1 of 3 words that rhymes with the target word
- (3) initial consonant same - choose 1 of 3 words which has the same initial sound as the target word
- (4) final consonant same - choose 1 of 3 words which has the

same final sound as the target word (picture of target word provided)

(5) strip initial consonant - delete initial phoneme of a word and pronounce the embedded word that remains

(6) substitute initial consonant - isolate the initial sound of a word and substitute a different sound to produce a new word

(7) initial consonant different - listen to the beginning sound of 4 words and choose the word that has the beginning sound different from the other words

(8) initial consonant not same (Note: This task was the same as the initial consonant different task, but the instructions were phrased in a negative manner. For example, "I am going to say a word aloud followed by three more words. Your task is to tell me which word does not begin with the same sound as the first word")

(9) final consonant different - identify 1 of 4 words which has a final sound that is different from the others

(10) supply initial consonant - identify the missing phoneme when presented with two words that are the same except for the

beginning sound.

The results found that the most difficult tasks for the children were the strip initial consonant, while the three easiest tasks involved the substitute initial consonant, rhyme supply and rhyme choice. The correlational data indicates that the seven nonrhyming tasks are useful predictors of first grade reading ability and are equal to or better than more global measures of cognitive skills, such as the intelligence test of Otis-Lennon School Ability Test and the Metropolitan Readiness Test.

Further evidence of the importance of phonemic awareness ability as an effective predictor of reading achievement was conducted by Spector (1992). She investigated the ability of a dynamic measure of phonemic awareness to predict progress in beginning reading. The dynamic measure assessed the ability of Kindergarten children to perform a phonemic awareness task (i.e., phoneme segmentation) when given supportive prompts and cues. A series of seven prompts was provided for the examiners to follow each time a child was unable to segment a word. The prompts consisted of: (1) pronouncing the target

word slowly; (2) asking the child to identify the first sound of the word; (3) cueing the child with the first sound; (4) cuing the child with the number of sounds in the word; (5) modeling segmentation using pennies placed in squares to represent the number of sounds in the word; (6) modeling segmentation as above, but working hand-over-hand with the child while pronouncing the segments; and (7) repeating the prompt. Thirty-eight kindergarten nonreaders were assessed in the fall on receptive vocabulary, letter and word recognition, invented spelling, phoneme segmentation, phoneme deletion and dynamic phoneme segmentation. The children were tested again near the end of the school year on all measures except dynamic phoneme segmentation. The results indicated that performance on the dynamic phoneme segmentation is a better predictor than any of the three static measures of phonemic awareness (i.e., phoneme segmentation, phoneme deletion and invented spelling).

Another study which found a significant correlation between student's phonemic awareness ability and later word identification and spelling skills was conducted by Macdonald and Cornwall (1995). This study is a follow-up of 24 students

(13 girls and 11 boys) who were first assessed in kindergarten in 1982 and assessed again 11 years later. The results indicated that phonological awareness, as measured by the Auditory Analysis Test (Rosner & Simon, 1971) "...was both a concurrent and a long-term predictor of word identification and spelling skills for students assessed at 6 years of age and again at 17 years of age." (p. 525). This was a better predictor than kindergarten achievement in word identification and spelling. These results suggest that phonemic awareness (as assessed by the Auditory Analysis Test) at age six "...approximates its adult form sooner than do word identification or spelling skills." (p. 526).

Training phonemic awareness skills

Children's phonemic awareness ability can predict later reading achievement as the previous studies have shown. However, can training in phonemic awareness improve children's reading and spelling ability? Several studies have investigated the effects of training in phonemic awareness skills on reading and spelling achievement (Ball & Blachman,

1991; Bradley & Bryant, 1985; Byrne & Fielding-Barnsley, 1990; Castle, Riach & Nicholson, 1994; Defior & Tudela, 1994; Lie, 1991). Most of these findings indicate that training in phonemic awareness improves children's ability to read and spell, and some studies indicate this is particularly so if training is in conjunction with the letters of the alphabet. Ball and Blachman evaluated the effects of training in phonemic segmentation, letter names and letter sounds, on Kindergarten children's word recognition and spelling. Eighty-nine children with a mean age of 5 years 7 months, were divided into one of three groups: (1) the phoneme awareness group, which received training in say-it-and-move-it activities, other segmentation related activities, and letter-name and letter sound training; (2) the language activities group, which participated in activities such as, general vocabulary development, listening to stories and learning semantic categorization. In addition, these children received training identical to the phoneme awareness group on letter-name and letter sound instruction; (3) the control group, which received no additional intervention to Kindergarten.

The children met in groups of 5, for 20 minutes, four times each week over a period of 7 weeks. The results of this study indicate that phonemic awareness training in segmentation, along with training in phoneme and letter identity, significantly improve children's ability to read and spell words over training in language activities, which also included training in phoneme and letter identity.

A study which also found that phonemic awareness training in conjunction with the letters of the alphabet, significantly improves reading and spelling, was conducted by Bradley and Bryant (1985). Sixty-five children aged 5 to 7 were provided individualized instruction in sound categorization. The children received training in one of three of the following training groups: (1) categorizing words according to common sounds (e.g., rhyme or alliteration); (2) categorizing words according to common sounds and representing these sounds with plastic letters; (3) semantic categorization of words. The fourth group received no intervention. The training involved 40 individual, ten-minute sessions spread over two years. The results indicated that children who received sound

categorization training only scored somewhat higher on reading and spelling tasks than children who did not get this instruction. Also, children who received sound categorization training supplemented with alphabet letters, significantly outperformed both control groups in reading and spelling, and outperformed sound only categorization group training in spelling. These findings indicated that the most effective phoneme awareness instruction includes attention to the associations between the sound segments of speech and the written symbols that represent those sounds.

Defior & Tudela (1994) wanted to determine under what conditions training in phonological abilities improves reading and writing. They studied 60 children in five randomly assigned groups (except for gender which was controlled) in first level, middle class primary school in Spain. The children were homogeneous regarding age, IQ, phonological abilities and reading and writing level. The five groups consisted of six children with each group receiving one weekly training session for 20 weeks (6 months). The 90 minute sessions were part of the afternoon activities in the school

and included both group activities related to the particular treatment of the group and individual training to insure that every child achieved an adequate performance level. Each group received training in one of five of the following areas:

- (1) work out rhyme and alliteration with a series of pictures of familiar objects. All of the words used in a given session had a common phoneme either initially or finally. Initial phonemes were used first and once this was learned, they continued with rhyme and final phonemes;
- (2) classify the same pictures as group 1 but classification was based on conceptual criteria;
- (3) same as group 1 but in addition to the sounds, the children were given experience with plastic letters to help them associate letters and phonemes. Once they became familiar with the alphabet, they made each word in the set with the plastic letters;
- (4) same treatment as group 2 but in addition to classification, they were given experience with written words. As training proceeded, the categorization tasks were carried out with the labelled pictures, then with both the labelled pictures and then written labels without pictures; and
- (5) receive no training.

The children engaged in manipulative activities such as coloring, cutting, sticking, etc. Post-training measures were taken in reading, writing and mathematics. The results found that training in phonological abilities in conjunction with the use of plastic letters during the process of initial learning, has a positive causal influence on reading and writing acquisition. They also found that subjects who were trained with the aid of written words, did not perform any better than that of subjects who were trained without written words.

Further evidence to support training of phonemic awareness has been provided by Lie (1991). He studied 208 grade one Norwegian children with a mean age of 7 years 2 months. The children were divided into three groups and received one of three daily training sessions in word analysis. The aim of the study was to stimulate the children to discover and attend to the phonological structure of language. The first group (60 children) received training in positional analysis which involved identifying the initial, final and medial sounds in spoken words. The second group (52

children) received training in sequential analysis, also called phoneme segmentation, which involved identifying the sounds in a word one after another in the right sequence. The third group (96 children) was the control group who received instruction in looking at and discussing illustrations. The results found that training in both positional analysis and sequential analysis, had a facilitating effect on reading and spelling. The differences on reading between the training groups and the control group were significant at the end of Grade 1, but not at the end of Grade 2. In spelling, both training groups scored significantly higher than the control group at the end of Grade 2, but the sequential training produced higher scores at the end of Grade 1. The results demonstrate that skills in word analysis facilitate learning to read and that these skills are not simply a consequence of reading acquisition. This study also found that children with low general intelligence benefited more from the training program than children with average or high intelligence.

Another study which found that instruction in phonemic awareness positively affects reading and spelling was

conducted by Castle, Riach and Nicholson (1994). They wanted to determine whether early training in phonological awareness would give children an advantage in reading and spelling, even though they were already receiving reading and spelling instruction in a regular whole-language classroom. Two experiments with five-year-old children were conducted to study the effects of phonemic awareness training on spelling and reading acquisition. The training consisted of two, twenty minute lessons per week for 10 weeks. In Experiment 1, which focused on spelling acquisition, 15 children were trained in phonemic awareness skills involving phoneme segmentation, phoneme substitution, phoneme deletion and rhyme. Another group of 15 children were trained in process writing (in which children are encouraged to write their own stories and to invent their own spellings). The results show that improvement in phonemic awareness ability leads to improved spelling skill, possibly by enabling children to use phoneme-grapheme correspondence rules. In Experiment 2, which focused on reading acquisition, 17 children were trained in phonemic awareness skills involving blending, deletion,

segmentation, rhyme, alliteration and letter-sound correspondences. Another group of 17 children was trained in semantic categorization and letter-recognition, and a third group of 17 children received no training. The results indicate that the phonemic training had a higher effect on reading skills, as measured by tests of reading ability, than the other training activities. "...both experiments provide evidence of the positive effects of phonemic awareness instruction as part of a regular whole language program." (p. 356).

While some studies (Ball & Blachman, 1991; Lie, 1991) concluded that training in segmentation provides the best results in improving children's reading and spelling acquisition, a study which opposed this conclusion was conducted by Byrne and Fielding-Barnsley (1990). They investigated how phoneme identity and phoneme segmentation influence acquisition of the alphabetic principle in preliterate preschool children with a mean age of 4 years 5 months. The two components of phonemic awareness studied were, recognition of phoneme identity when presented in new,

untrained words and phonemic segmentation of initial and final consonants within words. They concluded that it is more advantageous to train children in phoneme identity rather than segmentation as part of beginning reading instruction because it had a stronger relationship to the alphabetic principle and it was easier to implement. The authors also found that: children could identify final consonants just as easily as initial consonants; consonant clusters (eg. "skate" or "mask") did not pose a difficulty; and vowel phonemes were just as easily learned as consonant phonemes.

Another study which indicated that segmentation of phonemes was difficult for young children was conducted by Liberman et al. (1974). They studied how well children in nursery school, kindergarten and first grade can identify the number of phonemic segments in spoken utterances and how this compares with their ability to deal with the number of syllables in spoken utterances. They studied 46 preschoolers with a mean age of 4 years 11 months, 49 kindergartners with a mean age of 5 years 10 months and 40 first graders with a mean age of 6 years 11 months. In a game-like atmosphere, the

child was required to repeat a word or sound spoken by the examiner, and to indicate by tapping a small wooden dowel on the table, the number (from one to three) of phonemes or syllables (depending on which testing group) in the utterance. The results found that the children were markedly more able to segment into syllables than into phonemes, whatever the grade level. "...the findings strongly suggest that a greater level of intellectual maturity is necessary to achieve the ability to analyse words into phonemes than into syllables." (p. 210). But they also note that changes in age may or may not be independent of instruction in reading and writing.

Research involving training in segmentation has found positive effects on children's reading and spelling acquisition. Other training studies that included a component with explicit instruction in phonemic awareness consistently report positive effects on reading. Cunningham (1990) divided 42 Kindergartners, with a mean age 5 years 11 months, and 42 first grade children, with a mean age 7 years 2 months, into two groups and provided each group with one of the following forms of instruction in phonemic awareness: (1) a "skill and

drill" approach which emphasized the procedural knowledge of segmentation and blending of phonemes in a decontextualized manner versus (2) a metacognitive approach which explicitly emphasized the application, value and utility of phonemic awareness, as well as the procedural knowledge of segmentation and blending. Prior to this training, the Kindergarten children had received no formal prereading instruction and the first graders were receiving formal reading and spelling instruction in a basal reading series that emphasized phonics, word recognition and reading comprehension. Children, in groups of four or five, received training of 15 minutes, twice a week for ten weeks. Reading achievement was assessed by measuring children's knowledge of sound-letter correspondence, word recognition and reading comprehension. The results found a significant improvement in reading achievement for both Kindergarten and first grade children after they received instruction in phonemic awareness. However, the first grade children who received instruction through the metacognitive approach, performed significantly better on a transfer measure of reading achievement than the "skill and drill" only group

of first graders. The results of this study indicate that children can acquire phonemic awareness through both explicit and implicit instruction, although, for first graders, explicit instruction involving a metacognitive approach showed the most improvement in reading ability.

Another study which investigated explicit instruction of phonemic awareness was conducted by Davidson and Jenkins (1994). Forty Kindergarten children with a mean age 6 years, 3 months were studied to examine the relative effectiveness of phonemic awareness training that focused on either segmenting, blending or a combination of the two. In addition, they wanted to determine whether transfer to word reading could be facilitated by showing children at the time of transfer how to use the phonemic skill. The children met with an instructor for 10 minutes a day and did not receive any other type of instruction in reading words in the regular classroom. Classroom instruction consisted of story reading, alphabet introduction through songs, exercises in letter formation, teaching the names and sounds of the letters, key words for letters (e.g., "A - apple - /a/"), identification of beginning

sounds and rhyming words. The results indicated that children tended to acquire the particular generalization that they were taught but it did not improve their ability to perform another kind of phonemic skill which was not taught. The results also indicate that a combination of segmenting and blending instruction may help pre-reading children utilize letter-sound knowledge when figuring out how to pronounce printed words. However, it cannot be concluded whether children need to acquire both segmenting and blending to develop a level of phonemic awareness to facilitate learning to read or whether segmentation ability by itself produces an adequate degree of phonemic awareness. With regards to spelling, both groups performed well on the spelling transfer task.

Many of the studies discussed thus far, have studied normally developing kindergarten children who either did or did not receive some phonemic awareness training (either rhyming, segmenting, blending, etc.) to find a causal link between phonological skills and learning to read. These kindergarten children received training in phonological awareness in addition to other reading instruction in their

regular classroom. Consequently, O'Connor, Jenkins, Leicester and Slocum (1993) studied preschool children with disabilities to determine the usefulness of teaching them phonological manipulation skills. Preschool children were studied because they had not received any formal reading instruction. They studied 47 children ages four, five and six. Eighty percent of the children had significant language delays and some had additional disabilities, such as physical handicaps, mentally handicapped, or behavior disorders. The children had similar abilities in cognition, phonological awareness and letter recognition. The children were placed in one of three groups to receive training during a seven-week period: (1) rhymers were taught to recognize rhyme, identify rhyme oddity and produce rhyme; (2) blenders were taught to blend continuous stretched words, blend words divided into onset-rime, and blend words with all sounds segmented; and (3) segmenters were taught to segment two-and three-phoneme words saying all of the sounds in order, separate words into beginning sound and rhyme, and say the first sound in words. A fourth group received no training. The results suggest that phonological

skills can be taught to, and acquired by, young children with learning disabilities, and that they can be taught before children have functional reading ability. The children in each group significantly outperformed the other children in their particular area of training. However, many children did not generalize from the set of trained words to new words. In addition, training in one aspect of a skill (e.g., blending continuous sounds, i.e., m-a-t) did not generalize to another aspect of that same skill (e.g., blending stop sounds, i.e., b-a-t). Nor did training in one skill (e.g., rhyming) lead to improvement in other phonological skills (e.g., blending or segmenting). Nevertheless, it was concluded that "... young children with disabilities can acquire specific phonological manipulation skills." (p.545).

While the previous studies have shown that training in phonemic awareness can improve children's reading and spelling ability, all these studies involve the researcher engaged in the training of the children. Blachman, Ball, Black & Tangel (1994) trained kindergarten teachers and their teaching assistants in low-income, inner-city schools, to provide

phonemic awareness activities to small groups of children during the regular school day in the regular classroom. The study compared skills in phonemic awareness, letter-sound knowledge, and reading and spelling skills of those children who received the activities, with those children who did not receive the activities. A total sample of 159 children were involved in the study with 84 treatment children (47 boys and 37 girls) having a mean age of 5.62 and 75 control children (38 boys and 37 girls) with a mean age of 5.64. To avoid possible exposure of the control children to the treatment activities, the treatment and control children were chosen from different schools. Prior to the training, there were no significant differences between the 84 treatment children and the 75 control group children on age, sex, race, Socio Economic Status (SES), developmental level and sound counting. The treatment children received phonemic awareness training, from March until May, in groups of four or five, 15 to 20 minutes a day, four times each week. The teachers and the teaching assistants received seven, two-hour inservice workshops to learn the phoneme awareness training program.

Teachers also received instruction in the theoretical framework to support the teaching of phonological awareness, in addition to receiving practice activities and the opportunity to ask questions about the program. Each 15 to 20 minute lesson consisted of say-it-and-move-it phoneme segmentation activities, segmentation-related activities, and letter name and letter sound training. The children were assessed in May by specially trained examiners using a battery of tests. The results found that the treatment children significantly outperformed the control children on tests of phoneme segmentation, letter name knowledge, and letter sound knowledge. In addition, they "...read significantly more phonetically regular words and nonwords, and demonstrated a more sophisticated level of developmental spelling than the control children." (p.13).

Levels of phonemic awareness

As has been discussed, the ability to manipulate different parts of the sounds in words can be taught to, and learned by, children. Adams (1990) identifies five different

levels of phonemic awareness which are summarized as follows:

1. At the most primitive level, knowledge of Nursery Rhymes, which is related to development of more abstract phonological skills and of emergent reading abilities.

2. At this level, the oddity tasks require the child to compare and contrast sounds for rhyme or alliteration. This requires the ability to focus attention on the components of sounds of words and to make them similar or different.

3. The third level tasks of blending and syllable-splitting require the child to know that words can be subdivided into phonemes, and be familiar with the way phonemes sound "in isolation" and to produce these sounds independently.

4. Phonemic segmentation requires the child to know that words can be broken down into a series of component phonemes and that this breakdown can be done by the child and on request.

5. At this, the most difficult level, phoneme manipulation requires that the child have sufficient proficiency with the phoneme structure so that children can

add, delete or move any designated phoneme and generate a word.

Several conclusions can be drawn from these research studies reviewed: phonemic awareness is related to success in early reading and spelling of words; children can be trained to segment words into phonemes; including instruction in the associations between sound segments and letters, seem to have exhibited a greater effect on early reading and spelling of words; and explicit instruction in the application and value of these skills for reading and spelling, produced the best results.

Concerns regarding research on phonemic awareness

Analyses of reading and spelling, along with correlational studies, have led some researchers to conclude that phonemic awareness skills are causally related to reading and spelling of words at the beginning stages. However, there are some concerns regarding this research. The studies conducted on phonemic awareness have manipulated many of the skills associated with this area. As a result, there are

conflicting conclusions as to which phonemic awareness skills facilitate reading and spelling acquisition. Perfetti et al., (1987) conclude that the ability to blend segmented speech expedites beginning first graders reading achievement, while Davidson & Jenkins (1994) suggest that segmenting ability may play a more crucial role than blending ability in the early stages of reading and possibly spelling acquisition. Calfee et al., (1973), also found that phoneme segmentation is significantly related to reading and spelling performance and Lie (1991) contends that phoneme segmentation and phoneme isolation has a facilitating effect on beginning reading and spelling acquisition. Byrne and Fielding-Barnsley (1990), however, ascertain that training in phoneme identity is more advantageous than training in phoneme segmentation because it has a stronger relationship to the alphabetic principle. As can be seen, there are many conflicting reports on which skills of phonemic awareness facilitate reading and spelling acquisition. Thus, one cannot easily deduce whether one or more phonemic awareness skills are responsible for helping children learn to read and spell, or whether a more

generalized understanding of the skills is more beneficial. Until further studies are conducted, it might be best to include a variety of phonemic awareness skills, such as, phoneme segmentation, phoneme blending, phoneme identity and rhyming, when providing instruction in this area.

A concern with the assertion that training phonemic awareness would be most effective during the preschool age is that children may not be cognitively ready to acquire these skills. Liberman et al. (1974), contend that there are varying levels of difficulty of phonemic awareness tasks and that "...a greater level of intellectual maturity is necessary to achieve the ability to analyse words into phonemes than into syllables." (p. 210). Children seem to grasp the skills of rhyme, alliteration and analysis of syllables at the preschool level, however phoneme segmentation appears to be more difficult and to develop at a later age (Liberman et al., 1974). Yet O'Connor et. al. (1993) taught preschool children with significant language delays how to segment two- and three-phoneme words saying all of the sounds in order. In looking at these studies one can see that there is a

difference in the amount of time spent on training segmentation skills in addition to how this skill was measured. O'Connor et al. trained the children for 7 weeks and measured mastery by having the children orally segment two- and three-phoneme words, saying all of the sounds in order, separating words into onset-rime, and saying the first sound in words. Whereas Liberman et al., administered 4 training trials and measured mastery by requiring the children to tap out both the syllables and phonemes in words presented orally. Clearly, there is a discrepancy in the age at which children can learn to segment.

Conflicting results have been found regarding the influence of phoneme identity instruction combined with phonemic awareness training. The conclusions reached by Ball and Blachman (1991), Bradley and Bryant (1985) and Defior & Tudela (1994) were that phonemic awareness training combined with letter-sound instruction (i.e., phoneme identity), significantly improve children's ability to read and spell words. In contrast to this, Byrne and Fielding-Barnsley (1990) favoured training in phoneme identity over phoneme

segmentation as a component of beginning reading instruction.

To further complicate the findings, some researchers have measured "reading ability" using a broad spectrum of reading-related tasks. Some of these measures include reading readiness tests (Cunningham, 1990; Stanovich et al., 1984), word reading and spelling analog tasks (Davidson & Jenkins, 1994), reading analog tasks (Byrne & Fielding-Barnsley, 1990; Byrne & Fielding-Barnsley, 1991), word identification lists and spelling (Ball & Blachman, 1991; Castle et al., (1994); Spector, 1992), word identification lists and reading comprehension (Tunmer & Nesdale, 1985) and standardized tests of reading and spelling (Bradley & Bryant, 1983; Calfee et al., 1973; Defior & Tudela, 1994). The majority of these tasks measure the child's ability to read words in word lists. From this, it can be concluded that phonemic awareness has an effect on reading words in lists.

Phonemic awareness can be developed in preschool and kindergarten children. The Kindergarten year is the first year of formal education in Newfoundland and thus the first year of reading instruction. The objectives for reading

instruction are stated in the Atlantic Provinces' Education Foundation Curriculum Guide for Primary Language arts. However much of the development of the language arts curriculum is left up to the individual teachers. Children in the same grade are receiving different language arts curriculums as some teachers are expanding on the objectives in the curriculum guide. Thus children are acquiring different objectives for reading acquisition. In the preschool environment, no curriculum guides or standards exist for the instruction of reading or pre-reading skills. Since it has been shown that phonemic awareness training improves children's word recognition and invented spelling, an inservice program for educators needs to be developed to be used across the province.

INSERVICE TRAINING

To ensure that educators keep abreast of current changes in theories and knowledge, developing inservices in these areas is of vital importance in increasing student learning and achievement.

Different types of inservice programs

Some of the research on inservice training entails implementing several different styles of inservices on the same topic, and measuring the effectiveness of each. The effectiveness of such inservices is measured by changes in teacher behaviour. Todnem & Warner (1994) developed three different types of staff development in the area of questioning techniques. Treatment A involved a one-year program with 40 hours of training consisting of a three-day induction, seven collegiums, seven practicums, individual study and classroom applications. Treatment B was 18 hours in length and involved a three-day induction training and Treatment C was a 3 hour long awareness training. The results found that Treatment A, the long-term staff development

program, produced "significant gains to knowledge, understanding, and application of selected concepts related to effective questioning." (p.67). The developers suggested that a successful inservice should give the participants time to reflect on the value of the program, give participants an opportunity to observe each other several times, have the developers use the evaluation data from the participants to improve the program for next time, and give the program a chance to succeed.

Bos (1995) studied three successful professional development programs and found three characteristics that are powerful influences on changing teachers behaviors: (a) integration of teachers' personal knowledge with external knowledge; (b) creating teacher and school ownership by working in collaborative and supportive contexts thereby fostering self-efficacy; and (c) developing a common language in which to engage in problem-solving. Bos states that it is important for these characteristics to be assimilated into inservice programs to promote change in teachers.

Another study which investigated changes in teacher

behaviour as a result of three different types of workshops, was conducted by Sparks (1986). The three different types of workshops were: (1) 4 weekly workshops with no extra activities; (2) 4 workshops and two peer observation; and (3) 4 workshops with two coaching sessions with the trainer. The study concluded that the workshops with peer observation training activities were the most effective. The peer observation involved recording either student off-task behaviour or student-teacher interactions. However, it was noted that this was not a true experiment in that the subjects were not randomly assigned to treatments and this may have had an effect on the results. Although there are some limitations to this research, Sparks states that there are several reasons for inferring the merit of the peer-observation: (a) teachers rarely get the opportunity to observe each other teach, thus this experience provides them with motivation and new ideas; (b) in analysing and coding another teacher and students, this may have helped teachers analyse their own behaviours; and (c) it may have produced more trust and esteem among the teachers.

Characteristics of effective inservice programs

While much research on inservice for educators involves implementing and analysing different types of programs, some research involves determining characteristics, or components, of effective inservices. One such study was conducted by Epstein, Lockard & Dauber (1991) who identified four major components to help in the content, purpose, structure and organization of staff development for middle-school education. These components are: (1) all professional and support personnel working with middle-grades students should be provided with continual staff development; (2) the content of staff development should relate to the specific characteristics and needs of the students and conditions of teaching in the middle grades; (3) the structure of staff development is critical to its success; and (4) staff development should be linked to evaluations of staff and evaluation of programs. The authors conclude by stating:

... few staff development programs provide the content, guidance, and long-term follow-up to help teachers effectively implement new approaches, correct personal weaknesses, to meet specific needs of their students and schools. Thus, most teachers who have been "inserviced" in workshops, clinics, or short courses do not change

their practices. They are not expected to do so, not rewarded for trying, and not guided in their efforts. (p. 40).

Some of the research on inservice training deals with devising an inservice program, conducting it and evaluating it. Wade (1984/85) however, conducted a meta-analysis of 91 research studies on staff development/inservice programs to determine the variables that were frequently represented in the research. She grouped these variables into 8 categories in order to describe the main features of the inservices studied. The variables and the results of the meta-analysis are as follows:

1. Effect levels: inservice programs reported in the literature are moderately effective. Attempts to increase participants' *learning* through inservice training are highly effective (.90 mean effect size); attempts to change participants' *behavior* and to elicit positive *reactions* to the training are moderately effective (.60 and .42 mean effect size); and attempts to demonstrate results by looking at the students of participants are only mildly effective (.37 mean effect size).

2. Duration: there was no significant effect of length of treatment (from a few hours to sixty hours, or less than six months to more than six months).

3. Training Group Characteristics: training groups involving both elementary and secondary teachers achieved higher effect sizes than just one group alone. It was also found that voluntary, as opposed to required attendance, did not make a significant difference in training effect size, nor did the number of participants or their familiarity with each other.

4. Location and Scheduling: this had no significant impact on effect size.

5. Sponsorship: programs initiated, developed, or funded by the state or federal government or a university were significantly more effective than those initiated within the school.

6. Participant Incentives: participants chosen to attend a training program had the highest effect size, followed by incentives of college credit, and release time which produced moderately positive effect sizes. Pay, certificate renewal

and no incentive produced effect sizes below the mean effect size for all incentives studied.

7. Structure: independent study produced the highest effect size. Moderately effective structures included workshops, courses, mini-courses, or institutes, all of which had effect sizes near the mean.

8. Instructional Techniques: the four most effective types of instruction are observation of actual classroom practices, micro-teaching, video/audio feedback, and practice. The types of instruction with significantly lower effect sizes are discussion, lecture, games/simulations, and guided field trips.

Wade (1984/85) indicated that those who develop inservices should contemplate these findings for maximum effectiveness.

Another analysis of the research on inservice education was conducted by Sparks (1983). Her synthesis of the research on staff development/inservice education has an emphasis on delivery systems of these programs and how they effect teacher change and improvement. She asserted that:

While it is not possible to state conclusively that one inservice design is superior to another, we can put together the many pieces of research reviewed here to make some general recommendations about staff development programs for more effective teaching. (p. 71).

Some of these recommendations are:

- ▶ Select content that has been verified by research to improve student achievement.
- ▶ Conduct training sessions (more than one) two or three weeks apart.
- ▶ Include presentation, demonstration, practice, and feedback as workshop activities.
- ▶ During training sessions, provide opportunities for small-group discussions of the application of new practices and sharing of ideas and concerns about effective instruction.
- ▶ Between workshops, encourage teachers to visit each others' classrooms, preferably with a simple, objective, student-centred observation instrument. Provide opportunities for discussions of the observation.
- ▶ Develop in teachers a philosophical acceptance of the new practices by presenting research and a rationale for the

effectiveness of the techniques.

- Help teachers grow in their self-confidence and competence through encouraging them to try only one or two new practices after each workshop.

Another study which synthesized the research on staff development was conducted by Showers, Joyce & Bennett (1987). They studied 30 years of research and practical experience to locate areas where the research is strong enough to provide hypotheses for program design. Some of their findings include:

- Almost all teachers can take useful information back to their classrooms when training includes four parts: presentation of theory; demonstration of the new strategy; initial practice in the workshop; and prompt feedback about their efforts.
- Teachers are likely to keep and use new strategies and concepts if they receive coaching (either expert or peer) while they are trying the new ideas in their classrooms.
- Competent teachers with high self-esteem usually benefit more from training than their less competent, less

confident colleagues.

- A basic level of knowledge or skill in a new approach is necessary *before* teachers can "buy in" to it.
- It doesn't seem to matter where or when training is held, and it doesn't really matter what the role of the trainer is (administrator, teacher, or professor). What does matter is the training design.
- Similarly, the effects of training do not depend on whether teachers organize and direct the program, although social cohesion and shared understandings do facilitate teachers' willingness to try out new ideas.

Other research on inservice training describes characteristics of inservice programs. O'Brien (1992) describes how inservice programs should be designed and delivered. He proposed that inservice workshops should be guided by principles of adult education and should include such components as a diagnostic/prescriptive phase, presentation of theory, modeling, and practice under simulated conditions. He also provided information on how to maximize attendance at voluntary inservice programs and how to

effectively design and deliver inservice workshops. Some of the details of how a workshop should be designed and delivered involve: (a) recognizing and acknowledging teachers as fellow adult professionals with individual needs; (b) addressing informational and personal concerns before providing detailed management and consequence information; (c) modelling effective teaching strategies and provide multiple opportunities for hands-on/mind-on activities; (d) encouraging teachers to share ideas, activities and resources; and (e) including a workshop evaluation.

While O'Brien gives details of how a workshop should be devised and delivered, Joyce & Showers (1988) describe questions that designers of training must answer before planning. These questions are: "For whom is the training intended and what is expected to result from the training? Is follow-up to training built into schools as a permanent structure or must follow-up be planned and delivered as part of the training package? Does the content of the training represent new learning for participants or is it an attempt to refine existing knowledge and skills?" (p.70). In addition to

these questions, Joyce & Showers suggest components of training which can be included in increasing educators knowledge in specific areas. These training components include: (1) an explanation of theory to provide the educators with a rationale behind the skill or strategy and the principles that govern its use; (2) the demonstration of skills either through videotape of real situations or live demonstrations in the training setting. This can be provided in conjunction with the discussion of theory; (3) provision for the practice of a skill or strategy under simulated conditions. One way this can be achieved is by practising the skill or strategy with a small group of children. This may take twenty to twenty-five trials over a period of eight to ten weeks to achieve; and (4) provision of feedback about performance. This could be accomplished through the use of videotapes. Feedback should be provided as soon as possible, should be specific to the skills being attempted and should be nonevaluative.

Models of staff development

Burke, Heideman & Heideman (1990) define and describe several different types of staff development models. One of the models they describe is a model for district staff development. This model consists of five phases: creating readiness, conducting a needs assessment, planning a comprehensive staff development program, implementing, and evaluating the program. In planning a comprehensive program, one of the first items to be dealt with is identifying objectives. They describe three types of objectives: (1) knowledge objectives which deal with acquiring new information and understandings; (2) skills objectives which pertain to changing teacher behaviors; and (3) attitude objectives which identify the commitments and values necessary to implement changes in teacher behavior.

A second item to be dealt with in planning a program is to translate the objectives into activity formats. The type of activity for the program depends on the objectives. There are two types of activity formats, that is, informational and experiential. Informational formats are best suited to

objectives dealing with the acquisition of knowledge. These formats can include: basic information, i.e., information needed to be passed on to teachers (e.g., new school board policies); exploration of ideas, i.e., new information needed to be discussed, to exchange ideas and/or to explore concepts; and formal instructions, i.e., theories and knowledge base needed to be learned. Experiential formats are best suited to objectives dealing with changing staff behavior, changing attitudes or developing new skills. These formats can involve field experiences (e.g., visiting new locations to allow for real-world models or demonstrations), demonstration, practice and feedback of new learning and/or skills, and coaching (e.g., practising new learning in the classroom and receiving feedback and support while doing so).

The third item, according to Burke, Heideman & Heideman (1990), involved in planning a district staff development program is to consider variables which can increase the effectiveness of the activity. Some of these include understanding the change process, providing incentives, the size of the groups receiving the program, and the location in

which the program will be presented.

Another model of staff development is devised by Guskey (1986). He indicated that staff development programs are designed to alter professionals' practices, beliefs and understandings to improve student learning. He states "In other words, staff development programs are a systematic attempt to bring about change - change in the classroom practices of teachers, change in their beliefs and attitudes, and change in the learning outcomes of students." (p.5). Guskey proposes that the order of occurrence of these outcomes is important to the change process and to efforts to facilitate change in professionals'. Typically, staff development programs are based on the supposition that change in professionals beliefs and attitudes is the first step in producing change in their practices. Guskey argues that changes in beliefs and attitudes is the last change to occur. From staff development, educators make changes in their classroom practices which in turn changes student learning outcomes, which results in a change in teachers' beliefs and attitudes. "...when teachers see that a new program or

innovation enhances the learning outcomes of students in their classes...then and perhaps only then, is significant change in their beliefs and attitudes likely to occur." (p.7). In planning staff development, he suggests the consideration of three principles:

1. Recognize that change is a gradual and difficult process for teachers. For staff development to be successful, it must clearly portray how the new practices can be implemented systematically, without too much extra work or disruption. The new program or innovation should be explained in concrete, rather than abstract or theoretical terms, and should be aimed at specific teaching skills. In addition, the personal concerns of the teachers should be addressed.

2. Ensure that teachers receive regular feedback on student learning progress. Plans for a new program or innovation should include procedures whereby teachers can assess the effects of their efforts.

3. Provide continued support and follow-up after the initial training. They need support and guidance to make

whatever adaptations are necessary. This can be achieved through coaching, either by administrators, curriculum specialists, professors or fellow teachers, or by allowing teachers to interact and share their ideas and concerns.

Concerns regarding research on inservice training

While there are many factors of inservice training which are supported across the studies, such as, the importance of theory, demonstration, practice and feedback (O'Brien, 1992; Joyce & Showers, 1988; Showers, Joyce & Bennett, 1987; Sparks, 1983; Wade, 1984/1985) there are other factors which are inconsistent or contradictory. For instance, with regards to the explanation of theory, Guskey (1986) says that a new program or innovation should be explained in concrete, rather than abstract or theoretical terms. Others, however, state the importance of presentation of theory to give teachers the background on what it is they are to learn and why (Joyce & Showers, 1988; O'Brien, 1992; and Showers, Joyce & Bennett, 1987).

In the research reviewed, some studies state the

usefulness of coaching, either by an expert or a peer (Showers & Joyce, 1998; Showers, Joyce & Bennett, 1987; and Sparks, 1986). They indicate that coaching helps to reinforce the skills demonstrated in the inservice and provides feedback to the participants regarding their application of the skills. While Schumm & Vaughn (1995) also found that coaching appeared to enhance strategy implementation, they also discovered that not all teachers perceived coaching as a valuable tool and some teachers found it very stressful.

There were also differences in the importance of duration, location, trainer identity and voluntary participation as opposed to receiving incentives. Wade (1984/1985) found that duration of the inservice has no significant effect on teachers and students, whereas Todnem & Warner (1994) and Sparks (1983) state that several short inservices spaced over three or four classes is most effective as this allows the participants to internalize and try the skills or strategies discussed in the inservice.

The location of an inservice also is debatable. Burke, Heideman & Heideman (1990) indicate that location can effect

the outcomes of staff development. They say that the location must be chosen after the objectives have been established as it will either enhance or detract from the inservice. However, Showers, Joyce and Bennett (1987) say that from looking at previous studies, site is not particularly important.

Trainer identity and voluntary participation are also disputable areas in the review of the literature. Showers, Joyce & Bennett (1987) say it does not matter who the trainer is, i.e., an administrator, teacher or university professor, but that the training design is most important. In contrast, Guskey (1986) says that the trainer must be seen as a credible person who is articulate and charismatic.

The research on voluntary participation as opposed to receiving incentives for attending inservice training has more support for the latter. Wade (1984/1985) and Burke, Heideman & Heideman (1990) state the importance of providing incentives to increase participants' learning and utilizing the information in the inservice. Wade found that being chosen to attend the inservice, receiving college credit, and receiving

release time, respectively, have the greatest effect size.

While there are some areas of dispute in the literature regarding different effective aspects of inservice/staff development designs, there are many components which have received much support. These components should be considered and implemented in designing an inservice program.

CHAPTER THREE

METHODOLOGY

Research Design

The design of this study is comprised of "document review". There is an abundance of research in the area of phonemic awareness and inservice training as has been described in the literature review. Further research in this area continues, but it is necessary to impart to educators the knowledge gained from previous research. The current study proposes to analyse research on phonemic awareness and inservice training in order to develop an inservice program on phonemic awareness for teachers of Kindergarten , Grade 1 and Special Education, and early childhood educators.

Document review is a form of qualitative research which is typically used to supplement participant observation, interviewing, and/or observation (Marshall & Rossman, 1995). In the proposed study, these types of research methods will not be utilized, as the data necessary to develop an inservice have already been researched (i.e., data pertaining to

effective inservice programs have previously been extensively researched).

One of the strengths of the document review method is that it is unobtrusive. It can be conducted without disturbing the setting or data (Marshall & Rossman, 1995). In addition, the data is easy to manipulate and categorize for data analysis.

Another strength of this form of data collection is that it facilitates analysis, validity checks and triangulation as the data is available in the public domain. Also, previous researchers have developed useable measuring devices and have analysed their own research thereby helping in analysis of the current research (Marshall & Rossman, 1995).

Weaknesses involved with document review pertain to the fact that the data are open to misinterpretation due to cultural differences. Furthermore, the success of the review is highly dependent on the "goodness" of the initial research question of the document being reviewed (Marshall & Rossman, 1995). In order to minimize this, each research study will be analysed and compared with other similar or opposing studies.

Role of Researcher

In this study, the researcher will not be interacting with participants and, thus, does not have to address the issues of type of participation, advocacy issues, role relationships or access and entry. However, other such issues such as disciplinary identity and researcher subjectivity are relevant to this study. Disciplinary identity involves the researcher's professional background. In this case, the researcher has a Bachelor of Education degree with Primary methods, and a Bachelor of Special Education. In addition, she has worked with children who have difficulties learning to read and focused much of her teaching in the area of phonics. With regards to researcher subjectivity, the researcher will try to maintain a fair analysis of the research, taking into account research which may go against the content and format of the proposed inservice program.

Data Analysis

Data analysis will be conducted in conjunction with compiling the literature review. As information is read,

categories and patterns that emerge will be noted to form the foundation of the inservice program. In addition, data will be compared and contrasted and discrepancies will be noted and added to the analysis. The researcher will look for the types of phonemic awareness skills taught, in which order and which skills the children learn to use in aiding reading acquisition. Also, the characteristics of effective inservices will be noted so as to develop a competent inservice.

Limitations of the Study

This research is based on only one type of data collection strategy, namely document review, thereby limiting the amount of data collection techniques. Moreover, by having only one type of data collection, triangulation is more difficult to attain. However, by thoroughly researching the areas of phonemic awareness and inservice training through various articles and books, it is expected that a variety of data will be collected to allow for triangulation.

Another limitation of this study is the designed

inservice program has not been implemented. It has been designed for others to implement. Consequently, only anticipated scenarios and difficulties have been included in the program and any unanticipated problems in the format or design will have to be dealt with by the presenter.

CHAPTER FOUR

SUMMARY

Discussion

The researcher has reviewed the literature on phonemic awareness and inservice training to develop an inservice program on phonemic awareness for teachers and early childhood educators. In devising the inservice program, the findings from the literature reviewed were analysed to develop a comprehensive inservice which would impact on student achievement and learning. The inservice attempts to provide educators with a theoretical background, strategies to use in the classroom, and the opportunity to practice these strategies with feedback from peers and the presenter (Joyce & Showers, 1988; O'Brien, 1992; Showers, Joyce & Bennett, 1987; Sparks, 1983).

Before the inservice was developed, the researcher answered questions posed by Joyce & Showers (1988), which designers of training programs should answer before planning begins. These questions are: "For whom is the training

intended and what is expected to result from the training? Is follow-up to training built into schools as a permanent structure or must follow-up be planned and delivered as part of the training package? Does the content of the training represent new learning for participants or is it an attempt to refine existing knowledge and skills?" (p.70).

In answer to the first question, "For whom is the training intended and what is expected to result from the training?" the beginning of this question has been outlined in the title of this inservice, i.e., the inservice is intended for teachers and early childhood educators. The expected results of this inservice is to improve children's later reading abilities by providing them with skills in phonemic awareness. It is anticipated that the inservice will change educators practices to include some, if not all, of the strategies provided in the inservice to improve children's reading achievement.

The second question asks, "Is follow-up to training built into schools as a permanent structure or must follow-up be planned and delivered as part of the training package?". For

many schools and daycare/preschool facilities, staff development usually occurs as a "one-shot" day. Rarely do the participants discuss what was learned in the days or weeks following an inservice, and rarely do they meet to discuss how they are doing with implementing any strategies or ideas learned. For the inservice developed, follow-up is planned and delivered as part of the inservice program. The inservice will allow for participants to reflect on the value of the program and try the new strategies with their students between the inservice sessions. In addition, time is allotted to discuss the application of the strategies and share any ideas and concerns (O'Brien, 1992; Sparks, 1983; Todnem & Warner, 1994).

The third question posed by Joyce & Showers (1988) is "Does the content of the training represent new learning for participants or is it an attempt to refine existing knowledge and skills?". For the majority of early childhood educators and some teachers, the content of this inservice will represent learning new information but for some teachers it will be an attempt to refine existing knowledge and skills,

particularly for those teachers who have taught using the phonics method. Because it is difficult to ascertain the participants background knowledge, the approach to designing this inservice is from this perspective that they will be learning new information and strategies.

This inservice attempts to provide educators with a theoretical background, strategies to use in the classroom, and the opportunity to practice these strategies with feedback from peers and the presenter (Joyce & Showers, 1988; O'Brien, 1992; Showers, Joyce & Bennett, 1987; Sparks, 1983). It also attempts to provide an integration of personal and external knowledge (Bos, 1995; O'Brien, 1992). The personal knowledge and experience participants bring to the inservice will help in their understanding of the new concepts to be learned.

The format of this inservice is comprised of four two-hour sessions. Having the inservice program separated into small sessions with a few weeks in between each session, allows participants the opportunity to reflect on the value of the inservice and the strategies presented (Todnem & Warner, 1994). It also allows the participants the opportunity to try

the strategies presented with their own students and to ask questions or discuss any concerns at the next session. Each session presents only a limited number of strategies so the participants will not be overloaded with information. The participants will practice these strategies in small-group discussions with their peers or the facilitator, and will be able to discuss any concerns, receive feedback, and share ideas (O'Brien, 1992; Sparks, 1983). Each session is planned three weeks apart to allow the participants time to practice the strategies (Sparks, 1983).

Another feature of this inservice is to provide participants with articles to read on relevant topics and strategies (Wade, 1984/1985). Participants are encouraged to read these articles between sessions to increase their knowledge and to provide everyone with similar background information. In addition to this feature, videotaped lessons of strategies being used with children are to be shown to the participants. This characteristic has been shown to be very effective (Wade, 1984/1985).

Another characteristic of effective inservices which is

incorporated in this inservice is to encourage the participants to observe each other several times (Todnem & Warner, 1994; Sparks, 1986; Sparks, 1983). This can be difficult to arrange in a school setting but it can be accomplished by having the participants videotape themselves trying a strategy. The videotape can then be exchanged with another participant to observe and time will be provided in the session to discuss any observations. However, if participants can observe each other in actual situations, this will also be encouraged.

In addition, it is important for the participants to assess if their efforts are working (Guskey, 1986). Participants need to determine if what they are learning and doing is making a difference to their children/students. A pretest and a posttest is provided to the participants to administer to their students at the beginning and the end of this inservice program.

Conclusions

This thesis was designed to develop an inservice program

on phonemic awareness for teachers and early childhood educators. In analysing the literature on phonemic awareness and inservice programs, the researcher draws several conclusions. They are as follows:

1. The inservice developed in this thesis provides teachers and early childhood educators with necessary information about phonemic awareness and appropriate activities and strategies to use with their students.

2. The inservice provides a reference list for further study by those participants interested in pursuing research studies on, and the theoretical basis of, phonemic awareness.

3. The inservice provides teachers and early childhood educators with the opportunity to use new strategies with the support and feedback of the facilitator and fellow participants.

4. The inservice provides teachers and early childhood educators with the opportunity to observe others in their field utilizing the new strategies and interacting with students.

Recommendations

The researcher proposes a number of recommendations regarding the inservice program:

1. Participants should be aware of the format of the inservice before committing to it. This inservice requires more participation than most.

2. Participation in the inservice should be voluntary in order for maximum effectiveness.

3. The inservice provides suggested activities which should not be considered all inclusive.

4. The facilitator should read through the entire inservice before beginning implementation. It is also necessary for the facilitator to read through the selected readings for the participants as well so s/he will be able to answer questions and contribute to any discussion.

5. Further research is needed on the implementation and evaluation of the proposed inservice program.

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APPENDIX A

**INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS**

Facilitator's copy

Developed by
Kim Bursey B.Ed., B.Sp.Ed.

INSERVICE PROGRAM ON PHONEMIC AWARENESS FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

Purpose

The purpose of this inservice is to teach educators about the importance, and methods of developing phonemic awareness in their students. The inservice attempts to provide educators with a theoretical background, strategies to use, and the opportunity to practice these strategies with feedback from peers and the presenter (Joyce & Showers, 1988; O'Brien, 1992; Showers, Joyce & Bennett, 1987; Sparks, 1983).

For whom is the training intended and what is expected to result from the training? (Joyce & Showers, 1988).

This inservice is intended for teachers and early childhood educators. The expected results of this inservice is to improve children's later reading abilities by providing them with skills in phonemic awareness. It is hoped that the inservice will change educators practices to include some, if not all, of the strategies provided in the inservice to improve children's reading achievement.

Is follow-up to training built into establishments as a permanent structure or must follow-up be planned and delivered as part of the training package? (Joyce & Showers, 1998).

For this inservice, follow-up will be planned and delivered as part of the inservice program. The inservice allows for participants to reflect on the value of the program and try the new strategies with their students between the inservice sessions. In addition, time is allotted to discuss the application of the strategies and share any ideas and concerns (O'Brien, 1992; Sparks, 1983; Todnem & Warner, 1994).

Does the content of the training represent new learning for participants or is it an attempt to refine existing knowledge and skills? (Joyce & Showers, 1988).

For the majority of early childhood educators and some teachers, the content of this inservice will represent

learning new information, however for some of the teachers it will be an attempt to refine existing knowledge and skills. Because it is difficult to ascertain the background knowledge of the participants, the approach of this inservice is from the perspective that they will be learning new information and strategies.

Facilitator Information

The contents of this document are designed as a package to be presented to participants in four, two-hour sessions. This allows participants the opportunity to reflect on the value of the inservice and the strategies being presented (Todnem & Warner, 1994). It also enables the participants to try the strategies presented with their students and to ask questions or discuss any concerns at the next session. Each session will present only a limited number of strategies so as the participants will not be overloaded with information. They will be able to try or practice these strategies and will be able to discuss any concerns, receive feedback, and share ideas in small-group discussions with their peers or the presenter (O'Brien, 1992; Sparks, 1983). Each session should be three weeks apart to allow the participants time to practice the strategies (Sparks, 1983).

Some features of this inservice are:

- ♦ Provide participants with articles to read on relevant topics and strategies (Wade, 1984/1985). Participants will be encouraged to read these articles between sessions to increase their knowledge and to provide everyone with similar background information. It is advised that the presenter also read the same articles.
- ♦ Show participants videotaped lessons of some strategies being used with children (Wade, 1984/1985). This is to be devised and provided by the presenter.

- ♦ Show participants examples of some of the activities discussed in the inservice (this is optional but is highly recommended).
- ♦ Encourage the participants to observe each other several times (Todnem & Warner, 1994; Sparks, 1986; Sparks, 1983). This can be difficult to arrange in a school setting but it can be accomplished through the participants videotaping themselves using the activities. The videotape can then be exchanged with another participant to observe, and time will be provided in the next session to discuss any observations. However, if participants can observe each other in actual situations, this will be encouraged.
- ♦ Show participants that their efforts are working (Guskey, 1986). Participants need to see if what they are learning and doing is making a difference with their students. A pre-test and a post-test is provided to the participants to administer to their students to assess the effects of their efforts.

Materials Needed

- ♦ Copies of the "Participant's Notes" of each session for every participant.
- ♦ Video of some of the strategies being used with children. This will require the presenter to videotape children engaged in learning the different activities.
- ♦ Overhead projector with transparencies and washable marker.

A Point to Ponder

...it is important to remember that very few teachers will leave a staff development effort thoroughly convinced that a new program or innovation will work for them. But it is

hoped that many will be intrigued enough to try the new practices, at least on a trial basis, and will leave the staff development program with a "Well, let's see" attitude. (Guskey, 1986, p. 9).

INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

Facilitator's Session 1

OBJECTIVES

- ▶ provide definitions and theoretical background
- ▶ provide an introduction to phonemic awareness
- ▶ introduce the first stage of phonemic awareness
- ▶ provide a pretest for participants to administer to their students/children

MATERIALS

- ▶ photocopy of Participant's Notes for Session 1
- ▶ overhead transparencies (photocopy overhead pages # 1 - # 6 found at end of this session onto overheads)
- ▶ samples of the rhyming activities to show participants (optional)

OUTLINE

1. Introduction
2. Definition of Phonemic Awareness
3. Theoretical Background
4. Research findings on Phonemic Awareness
5. Different levels of Phonemic Awareness
6. Explanation of pre/post test
7. Description of level I - Rhyme

{ Pass around a sheet of paper for the participants to write their name, place of work and home phone number }

1. Introduction

-Early prevention of reading failure is important to many

educators and parents.

-Over the years there has been much debate over the best method to teach reading and writing (i.e. phonics, look-and-say, or whole language) and the debate continues.

-Much research shows that one of the first skills needed to facilitate reading and prevent reading failure, is phonemic awareness. Research has also shown that phonemic awareness is a better predictor of early reading acquisition than IQ tests, vocabulary acquisition, or listening comprehension. In other words, children who perform poorly on tests of phonemic awareness ability, usually perform poorly in reading and spelling achievement.

-For some children, these skills are acquired naturally just as we learn to talk but for others they need to be taught these skills. The good news is that these skills can be taught to, and learned by, children. However, they need to be taught in an orderly sequence and activities need to be developed to suit the age level of the children. Different activities need to be used with different ages because they have different cognitive abilities.

-Even though much has been learned from research regarding phonemic awareness, many educators are not aware of its importance. The purpose of this inservice is to teach you how to develop phonemic awareness skills in your children and therefore try to prevent reading failure.

2. Definition of Phonemic Awareness

OVERHEAD #1(top half)

-What is phonemic awareness? It is the ability to perceive spoken words as a sequence of sounds (Spector, 1992) (so you can tell that the word "cat" is made up of three sounds /c/ /a/ /t/) and its the ability to manipulate these component sounds (Griffith & Olson, 1992) (for instance, if you take

off the /c/ sound in cat, what word is left? or if you change the /c/ sound in cat to a /f/ sound, what word do you have now?)

-Phonemic awareness is not synonymous with phonics. Phonemic awareness is an essential skill needed *before* phonics can be acquired. It is the ability to manipulate different parts of the **sounds** in words. Whereas, phonics is learning the letter-sound relationships.

-“Only by understanding that spoken words contain phonemes can one learn the relationships between letters and sounds.” (Stahl, 1992, p. 621)

3. Theoretical Background

-Before talking about the theoretical background of phonemic awareness, tell participants to take a few minutes and write down what they do when they read or what they think reading involves.

-As was mentioned earlier, many of the studies which investigate phonemic awareness in young children conclude that phonemic awareness skills can be taught to, and learned by, children to help them learn to read.

-But what is reading? Ask for volunteers to read what they wrote about how they read.

- Smith (1971) states that “reading is less a matter of extracting sound from print than of bringing meaning to print” (p.2)
- Goodman (1994) indicates that reading is a meaning-seeking task which involves the application of all cueing systems - semantic, syntactic and graphophonic. (i.e. what you read has to make sense, has to sound right or be grammatically correct and you use your knowledge of the sound-symbol relationships to help decode words).

-There is no correct, precise answer to the question "What is reading?" and researchers continue to debate this question. But generally speaking, reading is a process whereby we construct meaning as we interact with a text. We use our knowledge of language, word analysis, phonemic awareness, sight words, and text structure (i.e. is the text a narrative/story or expository/informational). We also use our personal knowledge, prior beliefs and world knowledge to help us understand/comprehend the text. Other factors affect how we read, such as, our motivation to read (if we have to read something because it was assigned to us, then we read it differently than if we read the same article because we truly were interested in it), our attitude toward reading, how important we feel reading is or how important the text is to us (we read differently if we are told to read something for enjoyment than if we are told to read the same text to be tested on our understanding of it) (Ruddell & Unrau, 1991).

-Some researchers say that the first step in learning to read is that of word identification (Adams, 1990; Adams, 1993; Ehri, 1991).

-Adams (1993) states that research has demonstrated that for normal adult readers, meaningful text is read in a left-to-right direction, line-by-line and word-by-word. In addition, these readers visually process virtually **every letter of every word** they read and they do not feel like that is what they are doing. Because this happens automatically, we have the head space left to reflect on the meaning of the text or passage, i.e., we can comprehend what we are reading. This is similar to driving a standard shift car or playing the piano. When learning to drive a standard, you have to concentrate on listening to the engine, pushing in the clutch with your left foot while lifting your right foot off the gas pedal, changing the gears with your right hand and steering the car with your left hand at the same time as paying attention to other cars, pedestrians, traffic lights and road signs. Yet, with practice, you do it automatically, fluently and often while carrying on a conversation or thinking about other things.

This similar experience happens when we read but when

learning to read, there are several steps which must become automatic before true reading begins. One theory of how we learn to read is based on "Automatic Processing". "Automatic Processing" states that we have a limited attentional capacity which must be divided between different tasks that we perform at the same time (Andrews, 1992). For example, some people cannot rub their stomach and pat their head at the same time - it takes up too much head space or attentional capacity. Therefore, some tasks, such as knowledge of the sound-letter relationship and word identification, must become automatic. For us, as skilled readers, the process of word identification is automatic and we are able to focus our attention on comprehending the text and relating it to our existing schema or knowledge.

Automating the processes involved in word identification improves reading comprehension by increasing the attentional capacity available to focus on integrating the meanings of the words into whole phrases or sentences and relating them to existing knowledge. We do not comprehend text by constructing meaning from individual words, interpreted one by one by one. Comprehension operates on the relations, on the overlap, among these words. Words can mean different things depending on the context in which they appear.

OVERHEAD #2

List of Phrases

(let the participants read through the phrases silently)

So as can be seen, the whole clause or sentence must be read, more or less intact and stay in the reader's memory in order for understanding. That is why the speed and effortlessness of the word recognition process is so important. If it takes too long to get from one end of the sentence to the other, the beginning will be forgotten before the end has been registered.

One of the first skills needed to make word identification automatic is an awareness of the phonemes of spoken words, in other words, children need to be phonemically aware. Once children are aware of the phonemes in words, then they need to learn the relationship between these phonemes and

the alphabet (i.e., they learn the alphabetic principle).

-Another researcher, Ehri (1991), has stated that children progress through four developmental stages in acquiring word-analysis and word-recognition ability.

OVERHEAD #3

Developmental Stages in Acquiring Word-Analysis and Word-Recognition Ability

-Developing phonemic awareness is needed to enhance automatic word recognition, which in turn, frees-up the reader to enable him/her to concentrate on comprehending or making meaning of the text.

4. Research findings on Phonemic Awareness

-As has been stated earlier, phonemic awareness skills can be taught to, and learned by, children. There is much research to support training phonemic awareness skills.

OVERHEAD #1 (bottom half)

Summary of research supporting training phonemic awareness skills

-So research shows that Phonemic Awareness is a skill crucial to beginning reading. Some children develop this awareness naturally, just as we learn to talk, but it does not develop naturally for all children. Some children find it difficult to focus on the phonemes because they convey no meaning, instead they tend to focus on the "meaning" of the words.

5. Different levels of phonemic awareness

-Adams (1990) identifies five different levels of phonemic awareness.

OVERHEAD # 4
Levels of Phonemic awareness

- Whether these skills are a prerequisite, a facilitator, or a consequence of reading ability, phonemic awareness training influences reading and spelling development (Ehri, 1979).
- These levels proposed by Adams, can form an outline of instruction in phonemic awareness skills.

6. Explanation of the pre / post test

-Tell the participants that over the course of the next few months, they will be trying and using several strategies with their students. They will be wondering if what they are doing is making a difference to their students or if their students are indeed learning and becoming phonemically aware. In order to assure the participants that they are making a difference with their students, a test will be provided to administer to their students before any training in phonemic awareness begins and to be administered again after this inservice is completed.

-Stress the importance that after they administer the test, they do not look at it again until the inservice is completed. It is important that they do not try to teach the words on the test as this will effect the results. It is best if the participants do not use these words in the activities to teach the phonemic awareness skills because the children will have a greater chance of getting them correct on the posttest. If words not used in training, or new words, are completed successfully in the posttest, then they will know the children have learned the skill. If they do happen to use these words by chance in their activities with their students, then so be it. But encourage them to not use these words exclusively.

{ Participants can find a copy of the test in their notes to follow through as it is discussed. }

-The first part of the test involves auditory discrimination. (Read through the instructions with the participants and demonstrate how to administer it by pretending a participant is a child).

-The second part of the test deals with rhyme recognition. This allows the tester to assess phonemic awareness at a rudimentary level. (Read through the instructions with the participants and provide a demonstration).

-The third section of the test is phoneme isolation. Although we cannot really isolate the individual sounds in words, it is important for children to be able to approximate the sounds. (Read through the instructions with the participants and provide a demonstration).

-The last two sections deal with blending and segmenting. These two tasks are the most difficult and require more cognitive ability than the previous tasks. This task may be very difficult for many preschool children. (Read through the directions and provide a demonstration.)

PRE/POST TEST ON PHONEMIC AWARENESS

Child's Name: _____ Date: _____

Date of Birth : _____ Age: _____

AUDITORY DISCRIMINATION

Ask the child to tell you if the words sound the same or different. Read each pair of words to the child. Each pair may be repeated twice.

Practice: I'm going to say two words. Listen carefully to the words. If they sound exactly the same, I want you to say "yes". If they do not sound exactly the same, I want you to say "no". Listen to these words cat - cat are they the same? (Repeat the words if necessary).

If the child does not seem to understand, repeat the directions and use the words *bet* - *bed*.

	Same	Different
fuss - fuss		
bat - bet		
stop - top		
glass - grass		
fin - fun		
bend - bend		
middle - middle		
hot - cot		
send - mend		
ride - write		
slip - slip		

way - wave		
ten - pen		
ladder - letter		
though - foe		

Number correct: Same: _____ Different: _____ Total: /15

RHYME

Say to the child "Now we are going to talk about rhyming words. Do you know any rhyming words?". If necessary explain that rhymes are words that sound the same at the end, like walk - talk, full - pull, but not jump - run. Read the list of words to the child and ask them after every pair if the words rhyme or don't rhyme (Griffith & Olson, 1992).

Practice: I am going to say two words. Please tell me if they rhyme. You can say "Yes" if you think they are rhyming words, and say "No" if you think they do not rhyme.

hit bit - Do these words rhyme?

fun rug - Do these words rhyme?

fat - cat		cake - take	
red - bed		ear - cheese	
mice - bird		light - sight	
head - house		sand - land	
pin - win		cape - road	
duck - table		hair - seal	
henny - penny		fable - stable	

Total correct: /14

PHONEME ISOLATION

This task is designed to determine if the child can identify and say a particular sound after hearing it in a word. It is important that the child know the concept of beginning, middle, and end in order to do this task. Show the child how phonemes can be pronounced: **fat** starts with /f/, **teeth** has the /ee/ sound in the middle, and **work** ends with the sound /k/. Say the word to the child, then ask the child "What sound do you hear at the beginning (middle, end) of this word?" (The bolded letter is the sound you ask the child to repeat). Say the words carefully and clearly but do not stress the sound you are asking (Griffith & Olson, 1992).

Practice: I'm going to say a word and you tell me the sound it starts with (ends with or the sound it has in the middle). Let's try some for practice:

Jack - "What sound is at the beginning, of Jack?"

"Jack"

cat - "What sound is at the end, of cat?" "cat"

cake - "What sound is in the middle, of cake?"

"cake"

jam		sun	
soap		sheep	
book		house	
door		dog	
bat		bike	
yellow		made	
cube		ball	
top			

Total correct: /15

CLASSROOM PHONEMIC BLENDING AND SEGMENTATION TEST (Taylor, 1991)

Say to the child "I am going to give you some sounds, and I would like you to blend the sounds together into a word.

Practice: "When I say /c/-/a/-/b/, can you tell me the word?"

If the child is unable to respond correctly, you say to the child, "Well, the sounds /c/-/a/-/b/ would blend together to make "cab". Proceed to give the first item in the test, /t/-/a/-/b/. If the child is incorrect or unable to do it, do not correct the child or give the child the correct response. The directions and the word may be repeated a second time.

1	t - a - p		Teacher says /t/-/a/-/p/
2	s - e - t		Teacher says /s/-/e/-/t/
3	f - I - b		Teacher says /f/-/I/-/b/
4	j - o - g		Teacher says /j/-/o/-/g/
5	c - u - t		Teacher says /c/-/u/-/t/
6	s - o - f - t		Teacher says /s/-/o/-/f/-/t/

Total correct: /6

Say to the child, "I am going to say some words, and I would like you to give me the sound that you hear first in each word, the sound that you hear next, and the sound that you hear at the end of the word" (item 12 has four sounds).

Practice: "When I say "sad", can you give each sound you hear in the word? What sound do you hear first in "sad"? What sound do you hear next in "sad"? What sound do you hear at the end of "sad"? If the child is unable to respond or responds incorrectly, you may do the task for the child "The sound at the beginning of "sad" is /s/, the next sound is /a/, and the sound at the end of "sad"

is /d/. That makes /s/ /a/ /d/." If the child is incorrect or unable to do it, do not correct the child or give the child the correct response. The directions and the word may be repeated a second time.

7	sip		Teacher says "sip"
8	pat		Teacher says "pat"
9	tub		Teacher says "tub"
10	bet		Teacher says "bet"
11	skip		Teacher says "skip"
12	fast		Teacher says "fast"

Total correct: /6

7. LEVEL I - RHYME

-Based on research (Adams, 1990; Blachman et al., 1994; Griffith & Olson, 1992; O'Connor et al., 1993; Stanovich, Cunningham & Cramer, 1984; Yopp, 1992) the following levels of phonemic awareness can be determined.

OVERHEAD # 5

Levels of Phonemic Awareness

-Today we are going to learn about the first level - Rhyme.

{ Participants can find the information on rhyme in their notes and follow along with this discussion. As activities are discussed, it would be helpful if examples were available. }

-Awareness of rhyming words is the first skill, and the least difficult, in becoming phonemically aware. A useful way to develop awareness of rhyme is to read poems to children, especially those poems which repeat initial sounds, repeat words or end in rhyming couplets.

-There are several levels in the development of awareness of rhyming words.

A. Knowledge of Nursery Rhymes

When children have a good repertoire, nursery rhymes can be used to teach the concept of rhyme. Use nursery rhymes for recitation, singing, clapping, acting and pantomiming (Adams, 1990).

ACTIVITIES

- Divide a group of children in half. Have one group say the nursery rhyme but stop when they get to the last rhyming word. For example:
First half: Old King Cole was a merry old
Second half: soul
First half: And a merry old soul was he. He called for

his pipe and he called for his bowl and he called for his fiddlers
Second half: three.

- Children can also make up silly new rhymes by changing the rhyming word. For example:
Jack be nimble, Jack be quick
Jack jump over Pat and Dick!

B. Recognition of rhyming words.

Children can recognize and tell if two words rhyme. For example, "Date/time do these words rhyme?" (O'Connor et al, 1993).

ACTIVITIES

- Rhyming Pairs. Say pairs of words. If the words rhyme, children keep dancing and if they do not rhyme, children stop dancing. Soft music can be played in the background. This can also be played using happy/sad face puppets. If the words you say rhyme, the children show the happy face. If the words do not rhyme, the sad face is shown. (Badenhop, 1992).



- Rhyming Match. Find pairs of pictures of objects whose names rhyme, such as a bear and a chair, a hose and a nose, etc. Glue the pictures on cards or construction paper. Make at least five to ten pairs of rhyming pictures. Place them on a table or floor and mix them up. Children must then find the rhyming pairs. These cards can also be used to play a memory game.



- ▶ Fishing for rhyming words. Using pictures similar to the Rhyming Match game, glue the rhyming pairs on blue or green construction paper cut out in the shape of a fish. Put a paper clip on the mouth of the fish. Tie a small magnet to a piece of string or wool about two feet long. Tie the other end of the string to a small stick, fishing rod or ruler. Spread the fish on the floor and the children go fishing for two fish. If the fish rhyme, the child keeps them. If they do not rhyme they are returned to the pool.
- ▶ Animal Game. Each child will pretend to be a different animal. The teacher will say a word such as "big" and the animal that rhymes with this word must make the animal sound. For example, "pig" rhymes with "big", so the child who is the pig must oink.
- ▶ Farmer's Hat. Use a farmer's hat and a picture of an animal. Children pick pictures from a bag, barn or box. If the picture selected rhymes with the farm animal, the student places the picture in the farmer's hat.
- ▶ Sing songs which play with rhyme, for example, "Willaby, Wallaby, Woo, an elephant sat on you. Willaby, Wallaby, Wim, an elephant sat on Kim."
- ▶ Read poems and stress words that rhyme as you read. Also, stop before you read the rhyming word and let children fill in possible rhymes.
- ▶ Read literature that plays with the sounds in language through rhyme, alliteration (the repetition of an initial consonant sound across several words) and assonance (the repetition of vowel sounds within words). Some suggestions to use with these books include:
 - read and reread the stories
 - comment on the language use, for example "Did you notice that those words rhyme?"
 - encourage the children to predict sounds, words and phrases and then ask them how they figured it

out

- examine language use, for example, with young children (ages 3 to 5) comment on the language - "Those words start the same - pig, purple and pumpkin." With older children (ages 4 to 7) "What sound do you hear at the beginning of these words - pig, purple and pumpkin?" Yes, the /p/ sound. What are some other words that begin with the /p/ sound?"
- create additional versions or make another version of a story (Yopp, 1995). [See Yopp, 1995 for a bibliography of read aloud books for developing phonemic awareness.]

C. Identify rhyme oddity

Children are given three words and asked to identify the word which does not rhyme. For example, "Listen to these words and tell me the word which does not rhyme - cat, hat, bell - which word does not rhyme?"

ACTIVITIES

- ▶ Oscar the Grouch. Show pictures of three objects, two of which rhyme. Tell the children that Oscar the Grouch does not like rhyming words, he prefers words that do not rhyme. Ask the children to take away the picture that does not rhyme and place it in the garbage can for Oscar
- ▶ Teacher May I. Children make a straight line across one end of a room. Say three words, two of which rhyme and one does not. Ask the children to tell which word does not rhyme. If they indicate the correct word, they can take, for example, two giant steps, or one bunny hop, or ten baby steps, etc. The first child to reach the designated ending point wins the game.
- ▶ If you think you know the word, clap your hands. Sing the following song to the tune of "If you're happy and you know it, clap your hands". After the song is sung, pronounce a series of three or four words, one of which

does not rhyme. The children quietly listen to your words once. The second time you say the words, the children are to clap their hands when they hear the non-rhyming word.

If you think you know the word, clap your hands.
If you think you know the word, clap your hands.
If you think you know the word, then clap when it's heard,
If you think you know the word, clap your hands."

D. Produce rhyme

Children are asked to produce rhyming words. For example, "Tell me a word that rhymes with "land"?"

ACTIVITIES

- ▶ Picture story rhyme. Show pictures of three rhyming words and make up a story using the words. Children complete the story. For example, show a picture of a dog, fog and a log and say "The dog in the fog fell over a _____. This can also be played without picture cues and children supply their own rhyme and then illustrate the rhyming story themselves. (Badenhop, 1992).
- ▶ I Spy. "I spy with my little eye something that rhymes with _____." Let the children have turns saying "I spy".
- ▶ Rhyming body parts. Have children point to different body parts to show rhyming words. For example, tell children that you are going to say some words which rhyme with head or feet. After you say each word, have the children repeat it and decide which body part rhymes with it and point to the body part that rhymes with it.
- ▶ Rhyming Bingo. Children draw or cut out pictures of 4 to 6 items. On a piece of paper, draw either 4 or 6 squares. Glue each picture in a square drawn on the paper. You say "Who has a picture that rhymes with

_____?" . Whoever has the picture can cover it over with a piece of paper or a block, etc. The first one with all pictures covered wins the game.

- Rhyming Books. Use rhyming books such as Dr. Seuss and help children notice the similarities between many words that rhyme. Write down the words that rhyme in a list and ask children if they see any similarities. Add to the list of rhyming words and write down any silly rhyming words too.

-Ask participants if they have any suggestions of activities they have found successful in teaching rhyme. Discuss, if necessary, the activities and decide in which level of rhyme the activity could be placed.

-Indicate the articles to be read before the next session. Participants can find this with their outline and notes for today's session.

OVERHEAD #6

Poem on Pronunciation

(Let the participants read to themselves, just to show how difficult it is to learn English)

OVERHEADS

Phonemic awareness (also called phonological awareness)

- ▶ **the ability to perceive spoken words as a sequence of sounds (Spector, 1992) and the ability to manipulate these component sounds (Griffith & Olson, 1992).**
-

Research findings:

- ▶ Preschoolers who are given training in phonemic awareness display significant acceleration in their later acquisition of reading (Adams, 1990).
- ▶ Significant improvement in reading achievement for kindergarten and first grade children who received instruction in phonemic awareness (Cunningham, 1990).
- ▶ Phonemic awareness training in segmentation, along with training in phoneme and letter identity, significantly improve children's ability to read and spell words over training in language activities, which also included training in phoneme and letter identity (Ball & Blachman, 1991).
- ▶ The most effective phoneme awareness instruction included attention to the associations between the sound segments of speech and the written symbols that represent those sounds (Bradley & Bryant, 1985).
- ▶ The ability to blend phonemes into words facilitates later reading. Also, phonemic knowledge and learning to read are mutually supportive (Perfetti, Beck, Bell and Hughes, 1987).
- ▶ Children's awareness of rhyme and alliteration (i.e., the repetition of an initial consonant sound across several words) has a powerful influence on their eventual success in learning to read and spell (Bradley & Bryant, 1983).
- ▶ Children who enter reading instruction unable to perform phonemic awareness tasks, experience less success in reading than children who score high in phonemic awareness tasks when instruction begins (Spector, 1992).

OVERHEAD #2

while does eat oats, a wolf does not

while a bear may dance on a ball, a princess dances at one

you can swat a bat with a bat

throw a pen in a pen

make a racket with a racket

swallow a swallow

yak at a yak

duck from a duck

bark on a bark

nag an old nag

till till the till is full

Adams, M.J. (1991). Word Recognition and Reading. In C. Gordon, G. Labercane, & W. McEachern (Eds.), *Elementary Reading: Process and Practice* (2nd. ed.). Needham Heights, M.A.: Ginn Press.

OVERHEAD #3

According to Ehri (1991) children progress through four developmental stages in acquiring word-analysis and word-recognition ability:

1. the logographic stage in which children use visual context or graphic features to read words (for example, reading "McDonalds" by looking at the logo).
2. the transitional stage from logographic to beginning alphabetic, in which children begin to read words by shifting from visual context and specific letter associations to use of the alphabetic principle (the initial sound /c/ in cat is associated with the letter c)
3. the alphabetic stage, in which children rely on letter-sound or grapheme-phoneme relationships to read words (cat is sounded out and blended using a phonological recoding process that accesses the child's mental lexicon)
4. the orthographic stage, in which children use alphabetic principles, predictable letter patterns, groups with shared letter sequences and consistent pronunciations (hat, fat, mat) and analogy (-ain in rain to read the new word train) to read.

Thus, the transition from logographic to alphabetic is facilitated by phonemic awareness (Dallas, 1992).

OVERHEAD #4

Adams (1990) identifies five different levels of phonemic awareness which are summarized as follows:

1. At the most primitive level, knowledge of Nursery rhymes, which is related of development of more abstract phonological skills and or emergent reading abilities.
2. At this level, the oddity tasks require the child to compare and contrast sounds for rhyme or alliteration. This requires the ability to focus attention on the components of sounds of words and to make them similar or different.
3. The third level tasks of blending and syllable-splitting require the child to know that words can be subdivided into phonemes, and that the child be familiar with the way phonemes sound "in isolation" and to produce these sounds independently.
4. Phonemic segmentation requires the child to know that words can be broken down into a series of component phonemes and that this breakdown can be done by the child and on request.
5. At this, the most difficult level, phoneme manipulation requires that the child need sufficient proficiency with the phoneme structure of words so that s\he can add, delete or move any designated phoneme and generate a word.

OVERHEAD #5

Based on research (Adams, 1990; Badenhop, 1992; Blachman et al., 1994; Griffith & Olson, 1992; O'Connor et al., 1993; Stanovich, Cunningham & Cramer, 1984; Yopp, 1992) the following levels of phonemic awareness can be determined:

- I. RHYME
- II. SYLLABLES
- III. BEGINNING/ ENDING SOUNDS
- IV. BLENDING
- V. SEGMENTING
- VI. PHONEME MANIPULATION

OVERHEAD #6

Hints on Pronunciation for Foreigners

I take it you already know
Of tough and bough and cough and dough?
Others may stumble but not you,
On hiccough, thorough, laugh and through.
Well done! And now you wish, perhaps,
To learn of less familiar traps?

Beware of heard, a dreadful word
That looks like beard and sounds like bird,
And dead: it's said like bed, not bead-
For goodness' sake don't call it "deed"!
Watch out for meat and great and threat
(They rhyme with suite and straight and debt.)

A moth is not a moth in mother
Nor both in bother, broth in brother,
And here is not a match for there
Nor dear and fear for bear and pear,
And then there's dose and rose and lose-
Just look them up - and goose and choose,
And cork and work and card and ward,
And font and front and word and sword,
And do and go and thwart and cart -
Come, come, I've hardly made a start!
A dreadful language? Man alive.
I'd mastered it when I was five.

Adams, M.J. (1990). First published in the *London Times* (January 3, 1965). Only the initials of the author, T. S. W., are known.

INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

Facilitator's Session 2

OBJECTIVES

- ▶ provide time to discuss problems, concerns, etc.
- ▶ provide an explanation of and activities for levels II and III
- ▶ provide an opportunity to practice some activities
- ▶ provide a rationale and explanation of videotaping themselves, or having another participant observe them teaching several strategies

MATERIALS

- ▶ photocopy of Participant's Notes for Session 2
- ▶ overhead transparencies (photocopy indicated pages onto overheads)
- ▶ samples of the activities to show participants (optional)
- ▶ photocopy of the following article for each participant: Griffith, P.L., & Olson, M.W. (1992). Phonemic Awareness helps beginning readers break the code. *The Reading Teacher*, 45(7), 516-523.

OUTLINE

1. Discussion of problems, concerns, etc.
2. Review of phonemic awareness
3. Description of level II - Syllables
4. Description of level III - Beginning/Ending Sounds
5. Practice activities
6. Discussion of peer observations

1. Discussion of problems, concerns, etc.

- Participants can discuss what activities they did with their

students and any problems, concerns or questions they may have. The discussions may also involve the readings and any questions. Depending on the number of participants, these discussions can include the entire group or participants can break up into smaller groups.

2. Review of phonemic awareness

-As was mentioned in the last session, phonemic awareness is the ability to perceive spoken words as a sequence of sounds (Spector, 1992) and the ability to manipulate these component sounds (Griffith & Olson, 1992). In order for children to make the link between the sounds of speech and the signs of print, and for us to try to prevent reading failure, the child must understand that speech can be segmented into phonemic units that, when put together, represent words in print.

-When we read, we are constructing meaning from the text. Knowledge of the letter-sound relationships and word identification is automatic, and we are able to focus our attention on comprehending the text. For the beginning reader, the process of word identification is not automatic. One of the first skills needed to automatize word identification is an awareness of the phonemes of spoken words, in other words, children must become phonemically aware.

-As we learned last time, there are several levels of phonemic awareness and several stages to teaching children to become phonemically aware.

OVERHEAD #5

-The first level of phonemic awareness is Rhyme. Children are able to recognize if two words rhyme, identify rhyme oddity (i.e., which word does not rhyme?) and produce rhyme.

3. LEVEL II - SYLLABLES

{ Participants can find the information on level II and III in

their notes and follow along with this discussion. As activities are discussed, it would be helpful if examples were available to be shown.}

-An awareness of syllables in words and how to indicate the syllables is the second level.

-Before instruction and awareness of syllables begins, children need to be aware of the concept of a word. Games focusing on segmenting sentences into words is a prerequisite to this level. Activities such as having children jump, march or move blocks for each word in a sentence can be played. Also pointing to and counting words in a sentence from a story would be helpful. Another activity could be to have the morning news - write down on chart paper any news the children have to tell. When this is completed, the children's sentences are cut out and the children cut apart the words in the sentence. The focus here is to make children aware of the concept of a word.

{ Ask the participants if they have any other ideas or suggestions on how to develop this concept.}

ACTIVITIES

(i) Clap syllables

Children can clap their hands to the syllables of a two-syllable compound word, saying them as s/he claps. Ask the child to repeat the word after you. Indicate that the word has two parts. Ask her/him to say it again and to clap their hands for each part (Rosner, 1993).

- ▶ Clap the syllables in their names.
- ▶ Show pictures of two-syllable words and have the children clap out the syllables.
- ▶ Farmer's animals. Show the children a toy barn with many types of animals inside. Children pick an animal and clap-out the syllables in the animal's name.

- Toy Toss. Using a ball of wool or soft toy, have the children sit in a circle and toss the wool or toy to a child. That child must clap out the syllables in the word you say. The child then may toss the wool or toy to another child who must clap out the syllables in the word you say. Continue playing until everyone has had a turn.

The following are some examples of words which can be used (Rosner, 1993):

sunshine	cowboy	cupcake	candy
baseball	person	cartoon	children
bookcase	mountain	doctor	doorbell
party	garden	seesaw	window
paper	dentist	monkey	sandwich
airplane	napkin	ashtray	pillow

(ii) Draw dashes to represent the syllables
Children draw dashes from left to right on a chalkboard for each syllable in a word, saying them as s/he draws the dashes. Demonstrate this first for the children. Put the dashes horizontally, from left to right. Draw the first dash as you say the first syllable (e.g. *sun*) and draw the second dash as you say the second syllable (e.g. *shine*). Say the words slowly and deliberately (Rosner, 1993).

Once the children can do this, have them draw the dashes and then ask them what the dashes say. Ask them in any order. For example, if the child drew two dashes for the word *sunshine* then point to the first dash and say "What does this say?" S/he should say *sun*. If you pointed to the second dash, the child should say *shine*. (Vary the pattern of asking first or second syllable) (Rosner, 1993).

(iii) Say the part that is missing
Children repeat a two-syllable word after you. Say to the child, "Say *sunshine*" and the child repeats it. "Now say *shine* and the child repeats it. "What part is missing?" The child

should say *sun*. (Vary the pattern by asking first or second syllable) (Rosner, 1993)

Once this is accomplished, say to the child "Say *sunshine*" and the child repeats it. "Now say it again but don't say *shine*" (Rosner, 1993).

(iv) Repeat steps 1, 2, and 3 with three-syllable words.

The following are some examples of three-syllable words (Rosner, 1993):

basketball	gorilla	microphone	gasoline
valentine	buffalo	teddy bear	newspaper
important	yesterday	September	telephone

4. LEVEL III - BEGINNING / ENDING SOUNDS

-Before this level can begin, children need to know the concept of beginning and end. The following are some suggestions to teach this to young children:

- Have children form a line and indicate who is at the beginning and who is at the end.
- Point to a word and pull your finger under it as you say it slowly. Emphasize the beginning and the end.
- While looking at a book, indicate the beginning and the end.
- Before singing a song, watching a movie, eating lunch, etc, indicate the beginning, and when it is over, indicate that it is the end.

{ Ask the participants if they have any other suggestions. }

-There are several levels to becoming aware of beginning and ending sounds: [NOTE: say the **phoneme sound** (i.e. the sound the letter makes) and not the **letter name** for all these activities].

-Some studies have shown that using the letters in conjunction

with activities focusing on the sounds, helps children remember the phonemes and make them easier to retrieve (Ball & Blachman, 1991; Bradley & Bryant, 1983; Defior & Tudela, 1994; Hohn & Ehri, 1983). When doing the following activities with the children, take every opportunity to show the letter corresponding to the sound. It is not necessary that young children remember the name of the letter, but show it to them and tell them the name of the letter. Children who are soon to enter school or who are in school, should try to learn the names of the letters.

A. Beginning sounds

ACTIVITIES

(i) Focus on beginning consonant

- ▶ Sound of the day. Tell children the sound for the day, e.g. /t/. Say each of their names with the sound /t/ at the beginning, e.g., Tara for Sarah, Tayna for Dayna.
- ▶ Sound of the day box. Collect items in the room which begin with the sound of the day and place them in a box, such as a shoe box. Children may also cut out pictures from magazines or catalogues that begin with the sound of the day or they may draw pictures of things which begin with the sound. The letter which corresponds with the sound may be placed on the outside of the box.
- ▶ Treasure trove. Look for or hunt for items that begin with a specific sound. You can set a time limit.
- ▶ Play "I Spy". "I spy with my little eye something that begins with the sound _____ (e.g. /t/).
- ▶ Mailcarrier. Large envelopes are labelled with some letters of the alphabet, eg. A, B, C, (introduce only a few letters and sounds at a time). Say that each envelop belongs to a person for example, A is for Mrs. Appleton,

B is for Mr. Busybones, etc. The envelopes are placed in a large box which represents the mailbox. Children are asked to find pictures in magazines of objects that begin with the respective sounds/letters. When several pictures are in each envelop, all the pictures can be emptied onto the floor and the children have to sort the mail into the correct envelopes.

- Change the beginning sounds in familiar tunes. Sing the following song to the tune of "Someone's in the kitchen with Dinah" (Yopp, 1992:701):

I have a song that we can sing
I have a song that we can sing
I have a song that we can sing
It goes something like this:

Fe - Fi - Fiddly - I - o
Fe - Fi - Fiddly - I - o - o - o - o
Fe - Fi - Fiddly - I - oooooo
Now try it with the /z/ sound!

Ze - Zi - Ziddly - I - o
Ze - Zi - Ziddly - I - o - o - o - o
Ze - Zi - Ziddly - I - oooooo
Now try it with the /br/ sound!

Bre - Bri - Briddly - I - o
Bre - Bri - Briddly - I - o - o - o - o
Bre - Bri - Briddly - I - oooooo
Now try it with the /ch/ sound!

Che - Chi - Chiddly - I - o
Che - Chi - Chiddly - I - o - o - o - o
Che - Chi - Chiddly - I - oooooo
Che - Chi - Chiddly - I - o!

The same type of letter substitution can be done with "Ee-igh, ee-igh, oh!" in "Old MacDonald Had A Farm" or with the words in "Happy Birthday to You". In addition, instead of just changing the beginning letter of the

words, a particular syllable or letter could be substituted instead, for example, "La la lala la la" or "T t tt t t" (Yopp, 1992).

(ii) Beginning consonant same/different - children are shown a picture and are told to listen to the beginning sound. Emphasize the beginning sound for them. Now have them listen to a word and tell if the word has the same beginning sound as the picture. Children can smile, raise their hands, or draw a happy face, etc, if the words begin with the same sound, and look sad, sit down or draw a sad face if the words do not begin with the same sound.

B. Ending sounds

(use the same activities as for beginning sounds except focus on the ending sound. Omit the activity of saying children's names with the sound of the day at the end).

C. Recognition of phonemes within words

ACTIVITIES

(i) Sound isolation activities - children are given a word and asked to tell what sound occurs at the beginning or end.

- Use the following lyrics and sing to the tune of "Old Macdonald Had a Farm" (Yopp, 1992)

What's the sound that starts these words:
sun, snake and saw?

(wait for a response from the children)

/s/ is the sound that starts these words:

sun, snake and saw.

With a /s/, /s/ here, and a /s/, /s/ there,

Here a /s/, there a /s/, everywhere a /s/, /s/.

/s/ is the sound that starts these words:

sun, snake and saw!

What's the sound at the end of these words:

hop, cap and jump?

(wait for a response from the children)

/p/ is the sound at the end of these words:

hop, cap and jump.

With a **/p/**, **/p/** here, and a **/p/**, **/p/** there,

Here a **/p/**, there a **/p/**, everywhere a **/p/**, **/p/**.

/p/ is the sound at the end of these words:

hop, cap and jump!

(ii) Sound matching activities - children are asked which of several words begins with a given sound or to generate a word beginning/ending with a particular sound.

- ▶ Show three pictures and ask the children which picture begins or ends with a particular sound. For example, show a picture of a dog, a horse and a rake. Ask the children which word ends with the **/k/** sound (rake).
- ▶ Put several different pairs of pictures of items which begin with the same sound in an envelop. Children have to find the pairs of pictures which begin with the same sound. In another envelop, put several different pairs of pictures of items which end with the same sound. Children have to find the matching pairs.
- ▶ Sing the following lyrics to the tune of "Jimmy Cracked Corn and I Don't Care" (Yopp, 1992):

(all children sing this part)

Who has a **/t/** word to share with us?

Who has a **/t/** word to share with us?

Who has a **/t/** word to share with us?

It must start with the **/t/** sound!

(Ask a child or a child may volunteer to give a word that begins with the **/t/** sound.) Then the child sings:

Table is a word that starts with **/t/**

Table is a word that starts with **/t/**

Table is a word that starts with **/t/**

Table starts with the **/t/** sound!

- Ask children simple yes/no questions involving "Does _____(word) start with the /___ / sound? For example, "Does **fish** start with the /f/ sound? and the children answer with a simple "yes" or "no". Also use ending sounds "Does **dog** end with a /k/ sound? The children can do this before they can go to the table to eat their snack, or before free-time. Also, children can sit in a circle and after they have individually answered a question, they can toss a soft toy or ball of wool to another child who then gets asked a question. The happy/sad face stick-puppets from the rhyming games can also be used.

D. Sound discrimination activities

Children are to indicate which word, of three or four, has a different beginning or ending sound. At first make sure that the sounds are very different, for example, do not use words together which begin with /m/ and /n/, /f/ and /v/, /b/ and /d/, or do not use words which rhyme. As the children get better at this, you can use words which are more similar in sound, for example, man, nose, mouse.

ACTIVITIES

- Say three words, two of which begin or end with the same sound. Say to the children "Listen to these words - (e.g. fish, dog, fan). Two of these words begin with the same sound and one is different. I want you to tell me which word begins with the different sound." The following song can be sung, substituting different words each time.

Say "fish, dog, fan". Then sing:

"One of these words **starts** different from the others.

Two of these words **start** just the same.

One of these words **starts** different from the others,

Can you guess before my song is done,

now my song is done."

Follow the same procedure and directions for ending

sounds. Say "duck, rake, ham". Then sing:

"One of these words **ends** different from the others.
Two of these words **end** just the same.
One of these words **ends** different from the others,
Can you guess before my song is done,
now my song is done."

E. Sound isolation

Children are to pronounce the sound they hear in the beginning or ending position of a given word.

ACTIVITIES

- ▶ **Farmer's Hat.** Provide a farmer's hat and pictures of animals. Children will select a picture from a bag (box, barn, etc). Ask the child what is the beginning or ending sound. If they answer correctly, they can put the picture in the Farmer's Hat.
- ▶ **Going Fishing.** Cut shapes of fish from construction paper and glue on pictures of things (you could pick a theme for the pictures, such as animals, round things, or blue things). Laminate if possible. Place a paper clip by the mouth of the fish and spread the fish on the floor. Tie a small magnet to the end of a string and tie the other end of the string onto a small stick, ruler or child's fishing pole. Children take turns "fishing". When they catch a fish, tell them to say either the beginning sound or the ending sound of the picture. If they are correct they get to put their fish in a pail, if they are wrong they have to put the fish back in the pond.

5. Practice activities

-Tell the participants to get in pairs and try out some of these activities. They don't have pictures to use with each other but they can use words. Tell them to try at least the two activities with the ● . They may discuss any questions

or ambiguities they have regarding the activities. Allow sufficient time for everyone to try at least the two activities mentioned. Walk around and listen to the participants and correct any problem areas. Answer any questions or concerns.

6. Discussion of peer observations

-Research shows that when participants in an inservice program observe each other using the techniques/strategies they have learned, their own learning increases by providing them with new ideas, motivation and insight in analysing their own behaviors (Todnem & Warner, 1994; Sparks, 1983; Sparks, 1986). Tell the participants that they are going to try to observe each other using some of the strategies and activities that have been discussed. But this can be difficult to arrange. If they work with someone who is also doing this inservice, they may be able to observe each other trying one or some of these strategies. But if they can not observe each other in person or if they do not work with anyone else doing the inservice, then they can still observe each other by videotaping themselves trying some strategies or activities. The videotape can then be exchanged with someone else to look at. Time will be provided in the next session to discuss their videotapes.

-Participants will need to seek written permission from parents to include their children in the videotaping themselves because the children will also be on the videotape. If a participant can not receive permission to videotape, try to make alternate arrangements such as you go into the classroom to observe and then they can observe you doing an activity.

-For the videotape or observations, tell the participants to pick an activity which has them using sounds and focusing on sounds. This is very important because we all think we are using the sounds in the correct way but when we look at ourselves on videotape, for example, sometimes we see that we

are not always doing what we think we are doing: we may not be pronouncing the sounds correctly. If they do videotape, it is also useful for them to watch and analyse themselves.

-When observing another participant or watching their videotape, look at the children to see if they are participating in the activity, to see if they are interested. Also listen to the participant to see if they are pronouncing the sounds correctly. Too much emphasize on sounds distorts the actual sound within words as we speak, and if too little emphasis is placed on a sound then children may not recognize what you are trying to teach them.

-Some things to observe:

- ▶ The actions or interest level of the children.
- ▶ Are the children doing the activities correctly?
- ▶ The participants' use of the sounds
 - Are the sounds over pronounced? under pronounced?
 - Are the sounds pronounced correctly?
 - Can the participant better pronounce certain sounds? If so, how?

-Some activities to administer for observation:

- ▶ Beginning consonant same/different activities
- ▶ Ending consonant same/different activities
- ▶ Any activities for recognition of phonemes within words
- ▶ Sound isolation activities

-Discuss any questions or concerns

-Provide a copy of the following article for participants to read before the next session:

Griffith, P.L., & Olson, M.W. (1992). Phonemic Awareness helps beginning readers break the code. *The Reading Teacher*, 45(7), 516-523.

INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

Facilitator's Session 3

OBJECTIVES

- ▶ provide time to discuss problems, concerns, etc.
- ▶ provide time to discuss videotape or observation of partner
- ▶ provide an explanation of and activities for levels IV and V
- ▶ provide an opportunity to practice some activities

MATERIALS

- ▶ photocopy of Participant's Notes for Session 3 and readings for each participant
- ▶ samples of the activities to show participants (optional)
- ▶ photocopy of the following article for each participant:
Yopp, H.K. (1992). Developing phonemic awareness in young children. *The Reading Teacher*, 45(9), 696-703.

OUTLINE

1. Discussion of problems, concerns, etc.
 2. Discussion of videotape or observation of partner
 3. Description of level IV - Blending
 4. Description of level V - Segmenting
 5. Practice activities
 6. Peer observation
 7. Discussion of administration of post test
-

1. Discussion of problems, concerns, etc.

-Participants can discuss what activities they did with their students and any problems, concerns or questions they may have. Participants may also share any activities they made up or adapted to use with their children. The discussions may

also involve the readings and any questions. Depending on the number of participants, these discussions can include the entire group or participants can break up into smaller groups.

2. Discussion of videotape or observation of partner

-Partners who observed each other may sit together and discuss what they observed. The discussion should include:

- ▶ The actions or interest level of the children.
- ▶ Are the children doing the activities correctly?
- ▶ The participants' use of the sounds
 - Were the sounds overpronounced? underpronounced?
 - Were the sounds pronounced correctly?
 - Can the participant better pronounce certain sounds? If so, how?
- ▶ Do they see any improvement in these areas as a result of doing these activities with the children?

3. LEVEL IV - BLENDING

{ Participants can find the information on level IV and V in their notes and follow along with this discussion. As activities are discussed, it would be helpful if examples were available to be shown. }

- "Blending requires children to manipulate individual sounds by combining them to form a word. Given a series of isolated sounds (e.g., /b/-/a/-/t/), children blend them together (e.g., "bat")." (Yopp, 1992: 700). Children listen to a series of two or three isolated sounds and blend them together to make a word.

{ Demonstrate the activities for the participants when possible, particularly, how to segment words properly for the children to blend. }

-Beginning instruction in blending requires the use of a limited number of phonemes (i.e. sounds of letters) helps

children until they begin to generalize this ability to other phonemes. This set may contain fewer than 10 phonemes (Ball & Blachman, 1991; Byrne & Feilding-Barnsley, 1991; Hohn & Ehri, 1985). This set of phonemes usually contain long vowel sounds as opposed to short vowel sounds (Davidson & Jenkins, 1994; Hohn & Ehri, 1983) because their sounds are the same as the letter names (Murray, 1994). The following phonemes have been used by Blachman et al. (1994) - /a/, /m/, /t/, /I/, /s/, /r/, /f/, /b/. These phonemes were chosen because various combinations can produce many words. Use these phonemes to make up words for initial instruction in blending. Some examples of words made from these phonemes are:

it	at	am	rib	if
mit	fat	ram	fib	
sit	rat	tam	bib	
fit	sat	sam		
	tat	bam		
	mat			

-When segmenting sounds for the children to blend, do not segment consonant blends or consonant digraphs, i.e., /bl/, /gl/, /sl/, /cl/, /fl/, /pl/, /br/, /cr/, /dr/, /fr/, /gr/, /pr/, /tr/, /str/, /sw/, /squ/, /sm/, /sn/, /sc/, /sk/, /st/, /scr/, /sp/, /th/, /sh/, /ch/, /wh/, /wr/, /kn/ and /ck/. In addition, do not segment vowel combinations or diphthongs, i.e. /ai/, /ay/, /ee/, /ea/, /oa/, /ie/, /oe/, /au/, /aw/, /oo/, /ar/, /or/, /ir/, /er/, /ur/, /ow/, /oy/, /oi/, /ou/, /ew/. All these combinations only make one sound in words and should never be separated.

ACTIVITIES

- Use a puppet, stuffed animal or mythical creature and tell the children that it speaks in a different way. Choose two or three phoneme words (i.e., words with only two or three sounds in them). Use the words from the list above and ask the children if they can guess what the creature is saying.

- Choose rhyming words from stories, poems, and nursery rhymes that have been read many times to the children. Choose words which you can add different letters to the beginning of the word family to make new words (e.g., _at, _in, _up, etc. are word families). Have children guess what word you are saying. For this activity, do not segment the word family. For example, if you read the nursery rhyme "Hickory, Dickory, Dock" you could ask the children "What is the word I am thinking of? /d/-/ock/." The children respond "dock". Then ask "What is the word I am thinking of? /cl/-/ock/". The children respond "clock".

- ▶ Spider Web. Hold a ball of wool and say the phonemes in a two or three-phoneme word. Toss the ball of wool to a child but hold onto the end of the wool. The child who caught the wool repeats each of the phonemes and then blends them together to form the word. You then pronounce a new combination of phonemes and the child tosses the wool to a new child. Each child holds onto a piece of the wool in his/her hand when tossing. Continue until the web is formed, then sing a spider song, for example "Eensy, Weensy, Spider". Slowly rewind the wool as each child repeats his/her word and the phonemes (if the children are able to remember).

- Blending name line-up. Call the children to line up by saying their names one phoneme (sound) at a time. When all the phonemes are pronounced, then all the children blend the word together. For example, call /K/-/a/-/th/-/y/ Kathy, /J/-/or/-/d/-/a/-/n/ Jordan, /Sh/-/au/-/n/ Shaun.

- What is in my bag? Put pictures of two or three phoneme words in a decorative gift bag. Put your hand in the bag and pick a picture but do not let the children see it. Ask "What do I have? It is a /d/-/u/-/ck/." Ask a child to guess what it is. Give the picture to the child who answers correctly and ask them to repeat the phonemes

(sounds) and then the entire word. When all the pictures are used or all children have had a turn, the children put the pictures back in the bag. This game could be adapted to have the pictures in many things, such as a treasure chest, Halloween bag, Santa's sack, etc. Also, the children could try to repeat the segmented sounds after you say it as they put the picture back into the bag.

- If you think you know this word. Sing the following song to the lyrics of "If you're happy and you know it, clap your hands" (Yopp, 1992).

If you think you know this word, shout it out!
If you think you know this word, shout it out!
If you think you know this word,
Then tell me what you've heard,
If you think you know this word, shout it out!

Then say a segmented word such as "/d/-/o/-/g/" and the children say the blended word. For a quieter version, you can substitute the words "raise your hand" instead of "shout it out".

- Circle, Circle. The children sit in a circle on the floor. Each child is asked to guess the word you are saying (or use a puppet to say the segmented word). If the child is unable to answer correctly, s/he moves outside the circle and forms another, outer circle. The winner is the child who remains in the inner circle all alone.

4. LEVEL V - SEGMENTING

-Segmenting "involves isolating and pronouncing all the sounds of a word in correct order" (Badenhop, 1992, p. 112). This is the opposite of blending in that blending involves the instructor segmenting the words and now the children are required to segment the words.

-In beginning instruction in segmenting, as with blending, the use of a limited number of phonemes (i.e. sounds of letters) helps children until they begin to generalize this ability to other phonemes. The same phonemes can be used with segmenting and was used with blending, i.e., /a/, /m/, /t/, /I/, /s/, /r/, /f/, /b/. These phonemes were chosen because various combinations can produce many words. Use these phonemes to make up words for initial instruction in segmenting. Some examples of words made from these phonemes are:

it	at	am	rib	if
mit	fat	ram	fib	
sit	rat	tam	bib	
fit	sat	sam		
	tat	bam		
	mat			

-Some researchers suggest that using letter names in conjunction with teaching segmenting skills increases the child's ability to remember the sounds they are segmenting (Bradley & Bryant, 1983; Hohn & Ehri, 1983; Murray, 1994). In teaching children to segment using the following activities, letter names and symbols will be introduced.

-This is one of the most difficult levels of phonemic awareness and the research on preschoolers ability to segment phonemes is contradictory. One study indicates that preschool children generally find it difficult to segment phonemes (Liberman et al., 1974) yet another found that once preschoolers have been taught, even those with significant language delays can learn to segment phonemes (O'Connor et al., 1993). Therefore, do not be discouraged if some preschoolers find this level challenging.

ACTIVITIES

(i) Iteration, or sound repetition

- Repeat beginning sounds while speaking or singing. For

example, when calling attendance, repeat or draw-out the initial sound in a child's name - "K-K-K-K-Kim", "Ooooooooo-livia", "Ssssssss-am", "D-D-D-D-David" (Yopp, 1992, p. 701). Have the child repeat what you said and also show the letter you are stressing. The aim is to have the children do this independently.

- Read literature and poems that repeat the sounds in words through alliteration and assonance. Examine language use by commenting on the language, for example, say "Those words start the same - pig, purple and pumpkin." What sound do you hear at the beginning of these words - pig, purple and pumpkin? Yes, the /p/ sound." (Yopp, 1995). Then show the children the letter that the words begin with. [See Yopp, 1995 for a bibliography of read aloud books for developing phonemic awareness.]

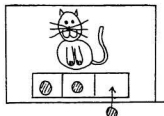
(ii) Incomplete or partial segmentation

- Missing beginning sound. Use the words from the list above and ask a child to repeat it. For example, "Say mat." (Child says mat). "Say /at/." (Child says /at/). "What sound is missing?" (Child says /m/) (Rosner, 1993).
- Missing ending sounds. Use the words from the list above and ask a child to repeat it. For example, "Say mat." (Child says mat). "Say /m/." (Child says /m/). "What sound is missing?" (Child says /at/) (Rosner, 1993).
- Show pictures of one syllable words (these words can revolve around a theme such as animals, foods, colors, etc.). Say the name of the picture and the beginning sound and ask a child to say what they hear at the end. For example, "Fish begins with /f/, what do you hear at the end?" The response should be /ish/. When saying the beginning sound, also show the letter which corresponds to that sound.

(iii) Segment words into phonemes

- Say it and move it. (Use the words from the list above). Draw a line across the middle of a piece of paper. Use three blocks, counters, etc. Begin using one block at the top half of the paper and say one phoneme. As you say the phoneme, move the block to the bottom half of the paper. For example, as you say /t/ move the block down. Have children repeat this after you. Then use two blocks of the same color and say a phoneme twice. As you say the phonemes one by one, move a block down to the bottom of the paper to represent the phonemes. For example, say /t/ - /t/ then say /t/ and move one block down, then say /t/ and move the other block down. Once children can do this, then use two-phoneme words, using two different colored blocks. For example, say /it/ then move a block down as you say /I/ and then move a block down as you say /t/. After this is mastered, you can use three phoneme words, such as mit, rat, sam, etc. After some practice with this, print one letter on a block and continue to segment. Gradually add the other letters (Blachman et al., 1994).
[NOTE: It is important to use different colored blocks to represent different phonemes as this will help to distinguish the differences among the sounds and cue children to the differences among the letters when they are introduced].
- Elkonin boxes (developed by Russian psychologist, D.B. Elkonin). This strategy is used to help children think about the order of sounds in spoken words. Place a simple concrete picture which children would recognize on an index card. Below the picture, draw a matrix that contains a box for each phoneme (not letter) in the word. Say the word slowly. As you say each sound, push blocks, counters, etc., into the boxes. Encourage the child to help by moving the counters and saying the sounds. Eventually, the child should be able to do this independently. As the children are able to do this, it can be made more difficult by removing the matrix, and using only the blocks and by removing the picture (Griffith & Oson, 1992). Letter blocks, letter tiles or

pieces of paper with the letters written on them, can be used by the children in place of the blocks, counters, etc.



- How many sounds do you hear? Say words containing two or three phonemes and ask the children how many sounds they hear. The children can clap, tap or use blocks, counters, etc., to indicate the number of sounds (phonemes) in the word. For example, "How many sounds do you hear in *fish*?" Children will tap, clap etc., the sounds and then say "Three". As the children learn the letter/sound correspondences, have them take turns writing the words on a chalkboard or chart paper using the sounds they identified.
- ▶ "Listen, listen to my word." Sing the following song to the tune of "Twinkle, Twinkle, Little Star" (Yopp, 1992, p. 702):

Listen, listen, to my word
Then tell me all the sounds you heard: race
(slowly)
/r/ is one sound
/a/ is two
/s/ is last in race it's true.

Listen, listen, to my word
Then tell me all the sounds you heard: go
(slowly)
/g/ is one sound
/o/ is two
and that is all in go it's true.

As the children become familiar with the song, they can sing the segmented section independently.

- "Come on down to the word is right". Open a book, binder or file folder and stand it on a table like a voting partition. Place it on a table so a child has to go behind it and the other children cannot see the face of the child. Place blocks or counters, etc., behind the "booth". Show a picture to a child behind the "booth" and have them segment the word. If the other children think they know the word, they raise their hand. Pick a child to blend the segmented word. If the child is correct, s/he can be the next contestant on the "Word is Right". If the children know the letter / sound correspondences, the child who segments the word can write the corresponding letters to the word on a chalk board or chart paper. When the game is finished, have the children try to read the words they wrote by making the sounds to go with the letters and blending them together to read the word.
- Sound Board. Use a pocket chart or make one. With two strips of clear plastic (5cm x 40cm), staple it length ways onto a piece of bristol board so as to form a long pocket with each strip. Cut white bristol board into card shapes the same size as a deck of cards and print a letter from the list above on each card (use a different colored card or marker for the vowels). Spread the letters across in the top pocket. Say a word from the above list and ask the children to segment it. Then as you repeat what they said, move the letters which correspond with the sounds down into the second pocket. Tell the children that now they have spelled the word. As you do several more examples, children will begin to move the letters down independently. Gradually add more letters. Over time, this can also work in reverse by putting the letters in the second pocket that spell a word and encouraging the children to blend the sounds to read the word.

5. Practice activities

-Tell the participants to get in pairs and try out some of these activities. They don't have pictures to use with each other but they can use words. Tell them to try the activities with a ● beside them in the left hand margin. They may discuss any questions or ambiguities they have regarding the activities. Allow sufficient time for everyone to try the activities mentioned. Answer any questions or concerns. Wander around the room and listen to the participants blending and segmenting, giving guidance where needed.

6. Peer Observations

-It will be worthwhile to observe another participant. Tell the participants to find a different partner to observe or to watch their videotape. Videotape several different activities if possible, as this allows both the participant and the observer to view and analyze several activities or methods.

-When observing another participant or watching their videotape, look at the children to see if they are participating in the activity, to see if they are interested. Also listen to the participant to see if they are pronouncing the sounds correctly. Too much emphasis on sounds distorts the actual sound within words as we speak, and if too little emphasis is placed on a sound then children may not recognize what you are trying to teach them.

-It is difficult to segment words into phonemes and not the letters, so much practice may be needed to get this right!

-Some things to observe:

- ▶ The actions or interest level of the children.
- ▶ Are the children doing the activities correctly?
- ▶ The participants' use of the sounds
 - Are the sounds overpronounced? underpronounced?
 - Are the sounds pronounced correctly?

- Can the participant better pronounce certain sounds? If so, how?

-Some activities to administer for observation:

- ▶ Mythical creature that speaks in a different way
- ▶ Spider Web
- ▶ Blending name line-up
- ▶ What is in my bag?
- ▶ "If you think you know this word"
- ▶ Missing beginning sound
- ▶ Missing ending sounds
- ▶ Say it and move it
- ▶ Elkonin box
- ▶ "Listen, Listen to my word"

-Discuss any questions or concerns

-Provide a copy of the following article for participants to read before the next session:

Yopp, H.K. (1992). Developing phonemic awareness in young children. *The Reading Teacher*, 45(9), 696-703.

7. Discussion of administration of post-test

-As was stated in the first class, research has found that one of the first skills needed to facilitate reading and deter reading failure, is that of phonemic awareness. Research has also shown that phonemic awareness is a better predictor of early reading acquisition than IQ tests, vocabulary acquisition, or listening comprehension. In other words, children who perform poorly on tests of phonemic awareness ability, usually perform poorly in reading and spelling achievement.

-Since most of the activities have been discussed and before our next session, most of the activities will have been tried with the students, it is time to retest them to see if they have become more phonemically aware.

-The same test as administered previously should be

administered to the children a few days prior to the next session. A different colored pen should be used to show the differences in the children's responses. The tests should be brought to the next session and the responses will be discussed.

INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

Facilitator's Session 4

OBJECTIVES

- ▶ provide time to discuss problems, concerns, etc.
- ▶ provide time to discuss videotape or observation of partner
- ▶ provide an explanation of and activities for level VI
- ▶ provide an opportunity to practice some activities
- ▶ provide an opportunity to discuss results of pre/post test
- ▶ provide an opportunity to evaluate inservice

MATERIALS

- ▶ photocopy of Participant's Notes for Session 4
- ▶ samples of the activities to show participants (optional)
- ▶ photocopy of the following article for each participant:
Yopp, H.K. (1995). Read-aloud books for developing phonemic awareness: An annotated bibliography. *The Reading Teacher*, 48(6), 538-542.

OUTLINE

1. Discussion of problems, concerns, etc.
 2. Discussion of videotape or observation of partner
 3. Description of level VI - Phoneme Manipulation
 4. Practice activities
 5. General recommendations and reminders for phonemic awareness activities
 6. Discussion of results of pre/post test
 7. Inservice Evaluation
-

1. Discussion of problems, concerns, etc.

-Participants can discuss what activities they did with their children and any problems, concerns or questions they may have. Participants may also share any activities they made up or adapted to use with their children. The discussions may also involve the readings and any questions. Depending on the number of participants, these discussions can include the entire group or participants can break up into smaller groups.

2. Discussion of videotape or observation of partner

-Partners who observed each other may sit together and discuss what they observed. The discussion should include:

- ▶ The actions or interest level of the children.
- ▶ Are the children doing the activities correctly?
- ▶ The participants' use of the sounds
 - Were the sounds overpronounced? underpronounced?
 - Were the sounds pronounced correctly?
 - Can the participant better pronounce certain sounds? If so, how?
- ▶ Do they see any improvement in the children in these areas as a result of doing these activities?

3. LEVEL VI - PHONEME MANIPULATION

-This is the most difficult level in phonemic awareness. It requires the child to delete, add, or substitute phonemes. Often, a child is not able to master this skill until formal reading and writing instruction has begun, thus, it is not typically mastered by young preschool children. Consequently, this level can be tried by participants dealing with these children, but it is not expected that the children will master these skills at such a young age.

REMEMBER: Say the phoneme **sound** and not the letter name.

ACTIVITIES

Note: These activities can be played with a board game whereby the child has to answer the question correctly in order to take his/her turn.

{ *Demonstrate the activities to the participants by providing several examples when possible.* }

(i) Specifying phonemes that have been deleted or added

- Say the sound that is missing. When given a pair of words almost identical except that the first one has an extra sound, the child has to say the sound that was left out. For example, "Say *meat*." (Child says *meat*). "Now say *eat*". (Child says *eat*). "What sound is missing?" (Child says /m/). Do this also with ending sounds. For example, "Say *make*. Now say *may*. What sound is missing in *may* that you heard in *make*?" (Badenhop, 1992).

The following is a list of some words suitable for this activity (Rosner, 1993):

(r)oar	(p)ink	(b)all	(j)ar
(l)ake	(l)it	(l)ash	(g)ear
(v)an	(p)age	(p)each	(b)ait
(h)arm	(j)oke	(f)or	(d)ate
(b)oil	(c)art	(l)ark	(p)up
(j)am	(w)ill	(h)ad	(h)air
(g)old	(c)ame	(h)as	(d)ear
(b)ar	(w)ink	(s)old	(d)itch
(g)ate	(b)eg	(s)our	(m)ice

- Say the sound that is added. When given a pair of words almost identical except that the last one has an extra sound, the child has to say the sound that was added. For example, "Say *and*." (Child says *and*). "Now say *band*." (Child says *band*). "What sound did we add?" (Child says /b/). Do this also with ending sounds. For example, "Say *key*. Now say *keep*. What sound is missing in *key* that you heard in *keep*?" (Badenhop, 1992).

The following is a list of some words suitable for this

activity (Rosner, 1993):

wa(ke)	fee(l)	bi(ke)	sa(me)
boi(l)	sta(ge)	ra(ce)	tra(n)
goa(t)	sea(l)	ho(pe)	ti(re)
si(de)	pa(ge)	li(fe)	tee(n)
ba(se)	gra(pe)	bi(te)	la(te)
boa(t)	na(me)	ro(de)	soa(k)
ba(se)	fir(m)	toa(d)	i(ce)
li(ke)	mi(te)	loa(f)	stor(m)
ty(pe)	mea(t)	pi(ke)	bea(m)

(ii) Deleting and adding phonemes

- Take-away game. Have children delete a phoneme from a spoken word. For example, "Say *meat*". (Child says *meat*). "Now say it without the /m/ sound." (Child says *eat*).
- Adding-on game. Have children add a phoneme to a spoken word. For example, "Say *eat*." (Child says *eat*). "Now say it with a /m/ at the beginning?" (Child says *meat*). Or "Say *way*. Now say it with a /k/ at the end." Use the words from the lists above in doing this activity.

(iii) Substitute a phoneme

- Substitute a phoneme in a spoken word after the phoneme is specified and a new phoneme supplied. For example, "Say *mend*. Now say it again, but instead of /m/ say /s/." Or "Say *bake*. Now say it again, but instead of /k/ say /s/." (Badenhop, 1992).

The following is a list of some words suitable for this activity (Rosner, 1993):

Say <i>sad</i>	Now say it again, but instead of /s/ say /m/	<i>mad</i>
Say <i>tan</i>	Now say it again, but instead of /t/ say /m/	<i>man</i>
Say <i>sat</i>	Now say it again, but instead of /s/ say /t/	<i>tat</i>
Say <i>my</i>	Now say it again, but instead of /m/ say /s/	<i>sigh</i>

Say make	Now say it again, but instead of /m/ say /t/	take
Say kill	Now say it again, but instead of /k/ say /m/	mill
Say call	Now say it again, but instead of /c/ say /t/	tall
Say task	Now say it again, but instead of /t/ say /m/	mask
Say cash	Now say it again, but instead of /c/ say /s/	sash
Say goat	Now say it again, but instead of /g/ say /b/	boat
Say toss	Now say it again, but instead of /s/ say /m/	tom
Say bait	Now say it again, but instead of /t/ say /s/	base
Say lace	Now say it again, but instead of /s/ say /t/	late
Say rack	Now say it again, but instead of /k/ say /t/	rat
Say gate	Now say it again, but instead of /t/ say /m/	game
Say mite	Now say it again, but instead of /t/ say /s/	mice
Say seat	Now say it again, but instead of /t/ say /k/	seek
Say fake	Now say it again, but instead of /k/ say /s/	face
Say well	Now say it again, but instead of /l/ say /t/	wet
Say face	Now say it again, but instead of /c/ say /t/	fate

4. Practice activities

-Tell the participants to get in pairs and try out some of these activities. Tell them to try the activities with a ● beside them in the left hand margin. They may discuss any questions or ambiguities they have regarding the activities. Allow sufficient time for everyone to try the activities mentioned. Answer any questions or concerns. Wander around the room and listen to the participants blending and segmenting, giving guidance where needed.

5. General recommendations and reminders for phonemic awareness activities

- Make the activities fun. Avoid drill and rote memorization (Yopp, 1992).
- Do the activities in a group so as to encourage interaction among the children (Yopp, 1992).

- Be positive and enthusiastic even when children are having difficulty grasping a concept.
- Allow for and be prepared for individual differences among children. Some children may catch on quicker than others (Yopp, 1992).
- Phonemic awareness instruction should depend entirely on the needs of the child and need not follow a rigid pattern (Badenhop, 1992).
- Phonemic awareness activities need to be conducted in conjunction with meaningful interaction with literature. Discussions and activities involving the main idea, setting, problem, solution, etc. of children's books, reading aloud to them, language experience charts, predictable books should continue to be taught. The activities in this inservice are meant to be a supplement to such experiences.
- Conducting these activities for a few minutes daily can maximize children's "...potential to have a successful experience learning to read" (Yopp, 1992, p. 703).
- "Extensive research has indicated the importance of phonemic awareness as prerequisite for understanding the alphabetic principle, namely that letters stand for the sounds in spoken words" (Griffith & Olson, 1992, p. 522).
- Phonological awareness skills should not be taught alone. They need to be taught in conjunction with meaningful literary experiences, namely, listening to appropriate and good quality children's literature and learning the letters of the alphabet and its sound-symbol relationships. These activities are necessary in order for children to apply the phonological awareness skills of blending to the task of decoding words and the skill of segmenting to the task of encoding for spelling (Badenhop, 1992).

6. Discussion of results of pre/post-test

-Guskey (1986) says that getting educators to assess student performance allows the educator to assess the effects of their efforts.

-Ask the participants what differences, if any, they found in the results of the pre-test and the post-test. Discuss the areas they found an improvement and the areas they found no improvement. There may be reasons for not finding improvement in some areas, such as, not enough activities or time given on a particular skill for the child to have mastered it, the child may not have understood the directions, or the child may not be cognitively ready to master a particular skill especially the higher level skills.

-Discuss any problems or concerns regarding anything addressed in the inservice

-Provide a copy of the following article for participants to read:

Yopp, H.K. (1995). Read-aloud books for developing phonemic awareness: An annotated bibliography. *The Reading Teacher*, 48(6), 538-542.

7. Inservice Evaluation

-Ask participants to complete the inservice evaluation form at the end of their notes.

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INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

INSERVICE EVALUATION

1. Was everything explained clearly, i.e., use of terms, theory, activities?

Yes_____ No_____

Comments_____

2. Was the length of each session

too long?_____ too short?_____ just right?_____

Comments_____

3. Did you find the peer observations

helpful?_____ not helpful?_____

Comments_____

4. Was the time between each session

too long?_____ too short?_____ just right?_____

Comments_____

5. This inservice consisted of four two-hour sessions spread out over a three month period. Do you prefer this type of inservice or would you prefer to have a whole-day inservice?

four short sessions_____ one whole-day session_____

Comments _____

6. Did you find the assigned readings

helpful? _____ not helpful? _____ too technical? _____

Comments _____

7. Do you plan on using the activities discussed in this inservice in the future?

Yes _____ No _____

Why or why not?

8. Were there any topics that should have been expanded? included more information? given more examples?

9. Other comments and/or suggestions

THANK YOU

INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

Participants's Copy

Developed by
Kim Bursey B.Ed., B.Sp.Ed.

INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

Participant's Session 1

OBJECTIVES

- ▶ provide definitions and theoretical background
- ▶ provide an introduction to phonemic awareness
- ▶ introduce the first stage of phonemic awareness
- ▶ provide a pretest for participants to administer to their students/children

OUTLINE

1. Introduction
2. Definition of Phonemic Awareness
3. Theoretical Background
4. Research findings on Phonemic Awareness
5. Different levels of Phonemic Awareness
6. Explanation of pre/post test
7. Description of level I - Rhyme

1. Introduction

2. Definition of Phonemic Awareness

Phonemic awareness (also called phonological awareness)

- ▶ the ability to perceive spoken words as a sequence of sounds (Spector, 1992) and the ability to manipulate these component sounds (Griffith & Olson, 1992).

3. Theoretical Background

(See first reading for more information in this area)

4. Research findings on phonemic awareness

- ▶ Preschoolers who are given training in phonemic awareness display significant acceleration in their later acquisition of reading (Adams, 1990).
- ▶ Significant improvement in reading achievement for kindergarten and first grade children who received instruction in phonemic awareness (Cunningham, 1990).
- ▶ Phonemic awareness training in segmentation, along with training in phoneme and letter identity, significantly improve children's ability to read and spell words over training in language activities, which also included training in phoneme and letter identity (Ball & Blachman, 1991).
- ▶ The most effective phoneme awareness instruction included attention to the associations between the sound segments of speech and the written symbols that represent those sounds (Bradley & Bryant, 1985).
- ▶ The ability to blend phonemes into words facilitates later reading. Also, phonemic knowledge and learning to read are mutually supportive (Perfetti, Beck, Bell and Hughes, 1987).
- ▶ Children's awareness of rhyme and alliteration (i.e., the repetition of an initial consonant sound across several words) has a powerful influence on their eventual success in learning to read and spell (Bradley & Bryant, 1983).
- ▶ Children who enter reading instruction unable to perform phonemic awareness tasks, experience less success in reading than children who score high in phonemic awareness tasks when instruction begins (Spector, 1992).

5. Different levels of Phonemic Awareness

Based on research (Adams, 1990; Blachman et al., 1994; Griffith & Olson, 1992; O'Connor et al., 1993; Stanovich, Cunningham & Cramer, 1984; Yopp, 1992) the following levels of phonemic awareness can be determined:

1. RHYME
2. BEGINNING/ ENDING SOUNDS
3. SEGMENTING SENTENCES INTO WORDS
4. SYLLABLES
5. BLENDING
6. SEGMENTING
7. PHONEME MANIPULATION

PRE/POST-TEST ON PHONEMIC AWARENESS

Child's Name: _____ Date: _____

Date of Birth: _____ Age: _____

AUDITORY DISCRIMINATION

Ask the child to tell you if the words sound the same or different. Read each pair of words to the child. Each pair may be repeated twice.

Practice: I'm going to say two words. Listen carefully to the words. If they sound exactly the same, I want you to say "yes". If they do not sound exactly the same, I want you to say "no". Listen to these words cat - cat are they the same? (Repeat the words if necessary).

If the child does not seem to understand, repeat the directions and use the words bet - bed.

	Same	Different
fuss - fuss		
bat - bet		
stop - top		
glass - grass		
fin - fun		
bend - bend		
middle - middle		
hot - cot		
send - mend		
ride - write		
slip - slip		
way - wave		

ten - pen		
ladder - letter		
though - foe		

Number correct: Same: _____ Different: _____ Total: /15

RHyme

Say to the child "Now we are going to talk about rhyming words. Do you know any rhyming words?". If necessary explain that rhymes are words that sound the same at the end, like walk - talk, full - pull, but not jump - run. Read the list of words to the child and ask them after every pair if the words rhyme or don't rhyme (Griffith & Olson, 1992).

Practice: I am going to say two words. Please tell me if they rhyme. You can say "Yes" if you think they are rhyming words, and say "No" if you think they do not rhyme.

hit bit - Do these words rhyme?

fun rug - Do these words rhyme?

fat - cat		cake - take	
red - bed		ear - cheese	
mice - bird		light - sight	
head - house		sand - land	
pin - win		cape - road	
duck - table		hair - seal	
henny - penny		fable - stable	

Total correct: /14

PHONEME ISOLATION

This task is designed to determine if the child can identify and say a particular sound after hearing it in a word. It is important that the child know the concept of beginning, middle, and end in order to do this task. Show the child how phonemes can be pronounced: **f**at starts with /f/, **t**eeth has the /ee/ sound in the middle, and **w**ork ends with the sound /k/. Say the word to the child, then ask the child "What sound do you hear at the beginning (middle, end) of this word?" (The bolded letter is the sound you ask the child to repeat). Say the words carefully and clearly but do not stress the sound you are asking (Griffith & Olson, 1992).

Practice: I'm going to say a word and you tell me the sound it starts with (ends with or the sound it has in the middle). Let's try some for practice:

Jack - "What sound is at the beginning, of Jack?"

"Jack"

cat - "What sound is at the end, of cat?" "cat"

cake - "What sound is in the middle, of cake?"

"cake"

jam		sun	
soap		sheep	
book		house	
door		dog	
bat		bike	
yellow		made	
cube		ball	
top			

Total correct: /15

CLASSROOM PHONEMIC BLENDING AND SEGMENTATION TEST (Taylor, 1991)

Say to the child "I am going to give you some sounds, and I would like you to blend the sounds together into a word.

Practice: "When I say /c/-/a/-/b/, can you tell me the word?"

If the child is unable to respond correctly, you say to the child, "Well, the sounds /c/-/a/-/b/ would blend together to make "cab". Proceed to give the first item in the test, /t/-/a/-/b/. If the child is incorrect or unable to do it, do not correct the child or give the child the correct response. The directions and the word may be repeated a second time.

1	t - a - p		Teacher says /t/-/a/-/p/
2	s - e - t		Teacher says /s/-/e/-/t/
3	f - i - b		Teacher says /f/-/i/-/b/
4	j - o - g		Teacher says /j/-/o/-/g/
5	c - u - t		Teacher says /c/-/u/-/t/
6	s - o - f - t		Teacher says /s/-/o/-/f/-/t/

Total correct: /6

Say to the child, "I am going to say some words, and I would like you to give me the sound that you hear first in each word, the sound that you hear next, and the sound that you hear at the end of the word" (item 12 has four sounds).

Practice: When I say "sad", can you give each sound you hear in the word? What sound do you hear first in "sad"? What sound do you hear next in "sad"? What sound do you hear at the end of "sad"?". If the child is unable to respond or responds incorrectly, you may do the task for the child "The sound at the beginning of "sad" is /s/,

the next sound is /a/, and the sound at the end of "sad" is /d/. That makes /s/ /a/ /d/." If the child is incorrect or unable to do it, do not correct the child or give the child the correct response. The directions and the word may be repeated a second time.

7	sip		Teacher says "sip"
8	pat		Teacher says "pat"
9	tub		Teacher says "tub"
10	bet		Teacher says "bet"
11	skip		Teacher says "skip"
12	fast		Teacher says "fast"

7. LEVEL I - RHYME

-Awareness of rhyming words is the first skill, and the least difficult, in becoming phonemically aware. A useful way to develop awareness of rhyme is to read poems to children, especially those poems which repeat initial sounds, repeat words or end in rhyming couplets.

-There are several levels in the development of awareness of rhyming words.

A. Knowledge of Nursery Rhymes.

When children have a good repertoire, nursery rhymes can be used to teach the concept of rhyme. Use nursery rhymes for recitation, singing, clapping, acting and pantomiming. Knowledge of nursery rhymes is nothing more than an ear for the sounds of words (Adams, 1990).

ACTIVITIES

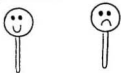
- ▶ Divide a group of children in two halves. Have one group say the nursery rhyme but stop when they get to the last rhyming word. For example:
First half: Old King Cole was a merry old
Second half: soul
First half: And a merry old soul was he. He called for his pipe and he called for his bowl and he called for his fiddlers
Second half: three.
- ▶ Children can also make up silly new rhymes by changing the rhyming word. For example:
Jack be nimble, Jack be quick
Jack jump over Pat and Dick!

B. Recognition of rhyming words.

Children can recognize and tell if two words rhyme. For example, "date/time do these words rhyme?" (O'Connor et al, 1993).

ACTIVITIES

- **Rhyming pairs.** Say pairs of words that rhyme. If the words rhyme, children keep dancing and if they do not rhyme, children stop dancing. Soft music can be played in the background. This can also be played using happy/sad face puppets. These puppets can be made easily using two colors of construction paper, a marker and a popsicle stick. If the words you say rhyme, the children show the happy face. If the words do not rhyme, the sad face is shown. (Badenhop, 1992).



- **Rhyming Match.** Find pairs of pictures of objects whose names rhyme, such as a bear and a chair, a hose and a nose, etc. Glue the pictures on cards or construction paper. Make at least five to ten pairs of rhyming pictures. Place them on a table or floor and mix them up. Children must then find the rhyming pairs. These cards can also be used to play a memory game.



- **Fishing for rhyming words.** Using pictures similar to the Rhyming Match game, glue the rhyming pairs on blue or green construction paper cut out in the shape of a fish. Put a paper clip on the mouth of the fish. Tie a small magnet to a piece of string or wool about two feet long. Tie the other end of the string to a small stick, fishing rod or ruler. Spread the fish on the floor and the children go fishing for two fish. If the fish rhyme, the child keeps them. If they do not rhyme they are returned

to the pool.

- ▶ **Animal Game.** Each child will pretend to be a different animal. The teacher will say a word such as "big" and the animal that rhymes with this word must make the animal sound. For example, "pig" rhymes with "big", so the child who is the pig must "oink".
- ▶ **Farmer's Hat.** Use a farmer's hat and a picture of an animal. Children pick pictures from a bag, barn or box. If the picture selected rhymes with the farm animal, the student places the picture in the farmer's hat.
- ▶ **Sing songs which play with rhyme, for example, "Willaby, Wallaby, Woo, an elephant sat on you. Willaby, Wallaby, Wim, an elephant sat on Kim."**
- ▶ **Read poems and stress words that rhyme as you read. Also, stop before you read the rhyming word and let children fill in possible rhymes.**
- ▶ **Read literature that plays with the sounds in language through rhyme, alliteration (the repetition of an initial consonant sound across several words) and assonance (the repetition of vowel sounds within words). Suggestions on how to use these books include: read and reread the stories; comment on the language use, for example "Did you notice that those words rhyme?"; encourage predictions of sounds, words and phrases and then ask the students how they figured it out; examine language use, for example, with young children (ages 3 to 5) comment on the language - "Those words start the same - pig, purple and pumpkin." With older children (ages 4 to 7) "What sound do you hear at the beginning of these words - pig, purple and pumpkin?" Yes, the /p/ sound. What are some other words that begin with the /p/ sound?"; create additional versus or make another version of a story (Yopp, 1995). [See Yopp, 1995 for a bibliography of read aloud books for developing phonemic awareness.]**

C. Identify rhyme oddity

Children are given three words and asked to identify the word which does not rhyme. For example, "Listen to these words and tell me the word which does not rhyme - cat, hat, bell - which word does not rhyme?"

ACTIVITIES

- ▶ Oscar the Grouch. Show pictures of three objects, two of which rhyme. Tell the children that Oscar the Grouch does not like rhyming words, he prefers words that do not rhyme. Ask the children to take away the picture that does not rhyme and place it in the garbage can for Oscar
- ▶ Teacher May I. Children make a straight line across one end of a room. Say three words, two of which rhyme and one does not. Ask the children to tell which word does not rhyme. If they indicate the correct word, they can take, for example, two giant steps, or one bunny hop, or ten baby steps, etc. The first child to reach the designated ending point wins the game.
- ▶ If you think you know the word, clap your hands. Sing the following song to the tune of "If you're happy and you know it, clap your hands". After the song is sung, pronounce a series of three or four words, one of which does not rhyme. The children quietly listen to your words once. The second time you say the words, the children are to clap their hands when they hear the non-rhyming word.

"If you think you know the word, clap your hands.
If you think you know the word, clap your hands.
If you think you know the word, then clap when it's heard,
If you think you know the word, clap your hands."

D. Produce rhyme

Children are asked to produce rhyming words. For example, "Tell me a word that rhymes with "land"?"

ACTIVITIES

- ▶ Picture story rhyme. Show pictures of three rhyming words and make up a story using the words. Children complete the story. For example, show a picture of a dog, fog and a log and say "The dog in the fog fell over a _____. This can also be played without picture cues and children supply their own rhyme and then illustrate the rhyming story themselves. (Badenhop, 1992).
- ▶ I Spy. "I spy with my little eye something that rhymes with _____." Let the children have turns saying "I spy".
- ▶ Rhyming body parts . Have children point to different body parts to show rhyming words. For example, tell children that you are going to say some words which rhyme with head or feet. After you say each word, have the children repeat it and decide which body part rhymes with it and point to that body part.
- ▶ Rhyming Bingo. Children draw or cut out pictures of 4 to 6 items. On a piece of paper, draw either 4 or 6 squares. Glue each picture in a square drawn on the paper. You say " Who has a picture that rhymes with _____?". Whoever has the picture can cover it over with a piece of paper or a block, etc. The first one with all pictures covered wins the game.
- ▶ Rhyming Books. Use rhyming books such as Dr. Seuss and help children notice the similarities between many words that rhyme. Write down the words that rhyme in a list and ask children if they see any similarities. Add to the list of rhyming words and write down any silly rhyming words too.

READING #1

Introduction to Phonemic Awareness

Kim Bursey, B.Ed., B.Sp.Ed.

Early prevention of reading failure is an issue of importance for educators and parents. A child who is at risk of reading failure does not rely, or places too much reliance, on syntactic, semantic or graphophonic cues. There are some children who experience reading failure, yet most of these children acquire the ability to speak and to understand speech. Children acquire their native language in an informal atmosphere without direct teaching, however, literacy requires direct, formal instruction. Over the years there has been much debate over the best method to teach reading and writing (i.e., "phonics", "look-and-say" or "whole language") and the debate continues. Educators are continually receiving inservice programs on new theories of reading and language arts curriculum.

Much research in the area of reading acquisition has

shown that one of the first skills needed to facilitate reading, and deter reading failure, is that of phonemic awareness (Adams, 1990; Calfee, Lindamood & Lindamood, 1973; Cunningham, 1990; Ehri, 1979; Juel, Griffith & Gough, 1986; Perfetti, Beck, Bell & Hughes, 1987; Spector, 1992). These studies provide evidence that acquisition of various phonemic awareness skills are related to reading and spelling achievement regardless of the method of instruction used in the classroom. Research has also shown that performance on phonemic awareness measures is a better cognitive predictor of early reading acquisition than measures of intelligence, vocabulary or listening comprehension (Bradley & Bryant, 1983; Grundin, 1994; Spector, 1992; Stanovich, Cunningham & Cramer, 1984; Stanovich, Cunningham & Feeman, 1984; Turner & Nesdale, 1985). In other words, children who perform poorly on tests of phonemic awareness ability, usually perform poorly in reading and spelling achievement. These phonemic awareness skills can be taught, however, they need to be taught in an orderly sequence (Ball & Blachman, 1991; Byrne & Fielding-Barnsley, 1991; Davidson & Jenkins, 1994; Lie, 1991; Murray,

1994). Furthermore, there have been suggestions made for teachers, such as Elkonin boxes and songs, to use in helping to develop phonemic awareness in their students (Yopp, 1992; Lewkowicz, 1994; Griffith & Olson, 1992)

For some educators, one of the most interesting findings of research on reading is that phonemic awareness is a crucial skill in the acquisition of reading and spelling. The term "phonemic awareness", also called "phonological awareness", is generally used to denote the ability to perceive spoken words as a sequence of sounds (Spector, 1992), and the ability to manipulate these component sounds (Griffith & Olson, 1992). It is important to note that phonemic awareness is not synonymous with phonics. Phonemic awareness is an essential skill needed before phonics can be acquired. According to Smith (1971) "reading is less a matter of extracting sound from print than of bringing meaning to print" (p.2). Phonemic awareness does not consist of learned spelling-to-sound correspondences and it is not sounding out words - it is an understanding of the structure of spoken language (Griffith & Olson, 1992). As Stahl (1992) states:

Only by understanding that spoken words contain phonemes can one learn the relationships between letters and sounds. The alternative is learning each word as a logographic, as in Chinese. This is possible, up to a certain limit, but does not use the alphabetic nature of our language to its best advantage. (p.8).

Phonemic awareness skills involve the ability to manipulate different parts of the sounds in words. These skills can be taught to, and learned by, children.

As children begin to learn to read to read, they need to be aware that words can be broken up into constituent sounds (i.e. phonemes), and that these phonemes are represented by the letters of the alphabet. Adams (1990) contends that preschoolers who are given training in phonemic awareness display significant acceleration in their later acquisition of reading. Bradley and Bryant (1983) conclude that children's awareness of rhyme and alliteration (the repetition of an initial consonant sound across several words, eg., eleven edible elephants eloping to Elsalvador) has a powerful influence on their eventual success in learning to read and spell. Calfee, Lindamood and Lindamood (1973) conclude that simple phonological skills, such as using coloured blocks to represent phonemes heard in two or three phoneme words, are

significantly and substantially related to reading and spelling performance through high school. Cunningham (1990) found there was significant improvement in reading achievement for Kindergarten and first grade children who received instruction in phonemic awareness. Dallas (1992) contends that children who begin school with good phonemic awareness skills, are the best readers in later grades and that children who do not have phonemic awareness skills, have great difficulty at the beginning stages of reading. Juel, Griffith and Gough (1986) conclude that phonemic awareness appears to strongly influence performance in spelling, word recognition, writing and reading comprehension in first grade. Perfetti, Beck, Bell and Hughes (1987) found that the ability to blend phonemes into words facilitates later reading, and that phonemic knowledge and learning to read are mutually supportive. Spector (1992) states that children who enter reading instruction unable to perform phonemic awareness tasks, experience less success in reading than children who score high in phonemic awareness tasks when instruction begins.

Phonemic awareness is a skill crucial to beginning reading since it assists reading acquisition. "If children are to realise and make use of the alphabetic relationship between spoken and written words they must first recognize that spoken words can be broken up into phonemes" (Andrews, 1992:90). However, phonemic awareness does not seem to develop naturally for all children (Dallas, 1992). Natural development of phonemic awareness may not be apparent in all children because the abstract composition of the phonemes convey no meaning and are thus difficult to learn. Children have great difficulty attending to these abstract units as they tend to focus on the meaning of the words instead. For children considered to be "at--risk" of reading failure, such as those who have difficulty with visual discrimination or visual memory, phonemic awareness must be acquired to facilitate reading acquisition.

Phonemic awareness skills involve the ability to manipulate different parts of the sounds in words. These skills can be taught to, and learned by, children. Adams (1990) identifies five different levels of phonemic awareness

which are summarized as follows:

1. At the most primitive level, knowledge of Nursery rhymes, which is related of development of more abstract phonological skills and or emergent reading abilities.

2. At this level, the oddity tasks require the child to compare and contrast sounds for rhyme or alliteration. This requires the ability to focus attention on the components of sounds of words and to make them similar or different.

3. The third level tasks of blending and syllable-splitting require the child to know that words can be subdivided into phonemes, and that the child be familiar with the way phonemes sound "in isolation" and to produce these sounds independently.

4. Phonemic segmentation requires the child to know that words can be broken down into a series of component phonemes and that this breakdown can be done by the child and on request.

5. At this, the most difficult level, phoneme manipulation requires that the child need sufficient proficiency with the phoneme structure of words so that s/he

can add, delete or move any designated phoneme and generate a word.

Many of the studies which investigate phonemic awareness in young children measure phonemic awareness training with children's word identification ability of words in lists. Word identification involves reading a word and understanding its meaning (Andrews, 1994). Grundin (1994) has criticized these studies for only measuring children's word identification skills and not measuring children's reading ability.

But what is reading? Smith (1971) states that "reading is less a matter of extracting sound from print than of bringing meaning to print" (p.2) and according to Goodman (1994) reading is a meaning-seeking task which involves the application of all cueing systems - semantic, syntactic and graphophonic. If this is the case, then measuring children's word identification ability does not measure reading ability since word identification utilizes only one of the cuing systems for meaning making (i.e., graphophonic). But there are other theories of reading and beginning reading acquisition

which state that word identification is the first step in learning to read (Adams, 1990; Ehri, 1984).

One of these theories, and the one on which this study is based, is that of "Automatic Processing". "Automatic Processing" states that we have a limited attentional capacity which must be divided between different tasks that we perform at the same time (Andrews, 1992). Therefore, some of these tasks, such as knowledge of the sound-letter relationship and word identification, must become automatic. For us, as skilled readers, the process of word identification is automatic and we are able to focus our attention on comprehending the text and relating it to our existing schema. Automating the processes involved in word identification improves reading comprehension by increasing the attentional capacity available to focus on integrating the meanings of the words and relating them to existing knowledge.

One of the first skills needed to automatize word identification is an awareness of the phonemes of spoken words, in other words, children need to be phonemically aware. Once children are aware of the phonemes in words, then they

need to learn the relationship between these phonemes and the alphabet (i.e., they learn the alphabetic principle). According to Ehri (1991) children progress through four developmental stages in acquiring word-analysis and word-recognition ability:

1. the logographic stage in which children use visual context or graphic features to read words (for example, reading "McDonalds" by looking at the logo).

2. the transitional stage from logographic to beginning alphabetic, in which children begin to read words by shifting from visual context and specific letter associations to use of the alphabetic principle (the initial sound /c/ in cat is associated with the letter c).

3. the alphabetic stage, in which children rely on letter- sound or grapheme-phoneme relationships to read words (cat is sounded out and blended using a phonological recoding process that accesses the child's mental lexicon).

4. the orthographic stage, in which children use alphabetic principles, predictable letter patterns, groups with shared letter sequences and consistent pronunciations

(hat, fat, mat) and analogy (-ain in rain to read the new word train) to read.

Thus, the transition from logographic to alphabetic is facilitated by phonemic awareness (Dallas, 1992). Developing phonemic awareness is needed to enhance automatic word recognition which in turn, frees-up the reader to enable him/her to concentrate on comprehending or making meaning of the text.

Phonemic awareness has also been shown to have an influence on spelling (Ball & Blachman, 1991; Davidson & Jenkins, 1994; Juel, Griffith & Gough, 1986; Lie, 1991). Spelling signifies the order in which letters are written to form words. Writing, on the other hand, involves expressing thoughts, ideas or meaning through written symbols (i.e., letters). Writing in grades Kindergarten to Three entails children using invented spelling. This suggests that children should sound out, or segment, words and print the letters for the sounds they hear. In other words, children are expected to utilize skills involved in phonemic awareness. The ability to perceive spoken words as a sequence of sounds (Spector,

1992) seems to be an effective skill as children begin to write using invented spelling.

Investigations into beginning reading and spelling development have provided insight into a factor that influences these developments, namely, phonemic awareness. Whether these skills are a prerequisite, a facilitator, a consequence or an incidental correlate of reading ability, phonemic awareness training influences reading and spelling development (Ehri, 1979). For those children who have limited exposure to print and limited practice opportunities, this delays the development of automaticity at the decoding level and much of their attention must go into word recognition rather than comprehension of text (Ball & Blachman, 1991). For these children, development of phonemic awareness requires intervention and "heightening phonemic awareness may help prevent some children from experiencing early reading and spelling failure" (Ball & Blachman, 1991).

The hypothesis of phonemic awareness is that it is a precursor of reading and spelling. Therefore, training the skill in the hopes that it will facilitate reading and

spelling acquisition, would be most effective during the preschool age before formal reading and spelling instruction commences. However, many of the studies train children after they have entered school and after reading and spelling education begins. The quandary here is that children need to be trained in phonemic awareness before formal reading and spelling instruction begins, in other words, training should take place in preschool or early Kindergarten.

There have always been some children who have had difficulty learning to read and educators have tried varied and numerous methods to teach them. Now that research studies have shown that phonemic awareness skills can be taught to children and are a necessary prerequisite to learning to read, teachers and early childhood educators can team up and teach young children these skills and hopefully deter later reading difficulties.

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**INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS**

Participant's Session 2

OBJECTIVES

- ▶ provide time to discuss problems, concerns, etc.
- ▶ provide an explanation of and activities for levels II and III
- ▶ provide an opportunity to practice some activities
- ▶ provide a rationale and explanation of videotaping themselves, or having another participant observe them teaching several strategies

OUTLINE

1. Discussion of problems, concerns, etc.
2. Review of phonemic awareness
3. Discription of level II - Syllables
4. Discription of level III - Beginning/Ending Sounds
5. Practice activities
6. Discussion of peer observations

1. Discussion of problems, concerns, etc.

2. Review of phonemic awareness

-Phonemic awareness is the ability to perceive spoken words as a sequence of sounds (Spector, 1992) and the ability to manipulate these component sounds (Griffith & Olson, 1992).

-For the beginning reader, the process of word identification is not automatic. One of the first skills needed to automatize word identification is an awareness of the phonemes of spoken words, in other words, children must become

phonemically aware.

-There are several levels of phonemic awareness and several stages to teaching children to become phonemically aware.

-The first level of phonemic awareness is rhyme. Children are able to recognize if two words rhyme, identify rhyme oddity (i.e., which word does not rhyme?) and produce rhyme.

3. LEVEL II - SYLLABLES

-An awareness of syllables in words and how to indicate the syllables is the second level of phonemic awareness.

-Before instruction and awareness of syllables begins, children need to be aware of the concept of a word. Games focusing on segmenting sentences into words is a prerequisite to this level. Activities such as having children jump, march or move blocks for each word in a sentence can be played. Also pointing to and counting words in a sentence from a story would be helpful. Another activity could be to have the morning news - write down on chart paper any news the children have to tell. When this is completed, cut out their sentences and then the children cut apart the words in the sentence. The focus here is to make children aware of the concept of a word.

ACTIVITIES

(i) Clap syllables

- ▶ Clap their hands to the syllables of a two-syllable compound word, saying them as s/he claps. Ask the child to repeat the word after you. Indicate that the word has two parts. Ask her/him to say it again and to clap their hands for each part (Rosner, 1993).
- ▶ Clap the syllables in their names.

- Show pictures of two-syllable words and have the children clap out the syllables.
- Farmer's animals. Show the children a toy barn with many types of animals inside. Children pick an animal and clap-out the syllables in the animal's name.
- Toy Toss. Using a ball of wool or soft toy, have the children sit in a circle and toss the wool or toy to a child. That child must clap out the syllables in the word you say. The child then may toss the wool or toy to another child who must clap out the syllables in the word you say. Continue playing until everyone has had a turn.

The following are some examples of words which can be used (Rosner, 1993):

sunshine	cowboy	cupcake	candy
baseball	person	cartoon	children
bookcase	mountain	doctor	doorbell
party	garden	seesaw	window
paper	dentist	monkey	sandwich
airplane	napkin	ashtray	pillow

(ii) Draw dashes to represent the syllables

- Children can draw dashes from left to right on a chalkboard for each syllable in a word, saying them as s/he draws the dashes. Demonstrate this first for the children. Put the dashes horizontally, from left to right. Draw the first dash as you say the first syllable (e.g. *sun*) and draw the second dash as you say the second syllable (e.g. *shine*). Say the words slowly and deliberately (Rosner, 1993).
- Once the children can do this, have them draw the dashes and then ask them what the dashes say. Ask them in any order. For example, if the child drew two dashes for the word *sunshine* then point to the first dash and say "What

does this say?" S/he should say *sun*. If you pointed to the second dash, the child should say *shine*. (Vary the pattern of asking first or second syllable) (Rosner, 1993).

(iii) Say the part that is missing

- ▶ Children repeat a two-syllable word after you. Say to the child, "Say *sunshine*" and the child repeats it. "Now say *shine* and the child repeats it. "What part is missing?" The child should say *sun*. (Vary the pattern by asking first or second syllable) (Rosner, 1993).
- ▶ Once this is accomplished, say to the child "Say *sunshine*" and the child repeats it. "Now say it again but don't say *shine*" (Rosner, 1993).

(iv) Repeat steps 1,2,and 3 with three-syllable words

The following are some examples of three-syllable words (Rosner, 1993):

basketball	gorilla	microphone	gasoline
valentine	buffalo	teddy bear	newspaper
important	yesterday	September	telephone

4. LEVEL III - BEGINNING / ENDING SOUNDS

-Before this level can begin, children need to know the concept of beginning and end. The following are some suggestions to teach this to young children:

- Have children form a line and indicate who is at the beginning and who is at the end
- Point to a word and pull your finger under it as you say it slowly. Emphasize the beginning and the end.
- While looking at a book, indicate the beginning and the end
- Before singing a song, watching a movie, eating lunch, etc, indicate the beginning, and when it is over,

indicate that it is the end.

-There are several levels to becoming aware of beginning and ending sounds: [NOTE: say the **phoneme sound** (i.e. the sound the letter makes) and not the **letter name** for all these activities].

-Some studies have shown that using the letters in conjunction with activities focusing on the sounds, helps children remember the phonemes and make them easier to retrieve. (Ball & Blachman, 1991; Bradley & Bryant, 1983; Defior & Tudela, 1994; Hohn & Ehri, 1983). When doing the following activities with the children, take every opportunity to show the letter corresponding to the sound. It is not necessary that young children remember the name of the letter, but show it to them and tell them the name of the letter. Children who are soon to enter school or who are in school, should try to learn the names of the letters.

A. Beginning sounds

ACTIVITIES

(i) Focus on beginning consonants

- ▶ Sound of the day. Tell children the sound for the day, e.g. /t/. Say each of their names with the sound /t/ at the beginning, e.g., Tara for Sarah, Tayna for Dayna.
- ▶ Sound of the day box. Collect items in the room which begin with the sound of the day and place them in a box, such as a shoe box. Children may also cut out pictures from magazines or catalogues that begin with the sound of the day or they may draw pictures of things which begin with the sound. The letter which corresponds with the sound may be placed on the outside of the box.
- ▶ Treasure trove. Look for or hunt for items that begin with a specific sound. You can set a time limit.

- Play "I Spy". "I spy with my little eye something that begins with the sound _____. (e.g. /t/).

- Mailcarrier. Large envelopes are labeled with some letters of the alphabet, eg. A, B, C, (introduce only a few letters and sounds at a time). Say that each envelop belongs to a person for example, A is for Mrs. Appleton, B is for Mr. Busybones, etc. The envelopes are placed in a large box which represents the mailbox. Children are asked to find pictures in magazines of objects that begin with the respective sounds/letters. When several pictures are in each envelop, all the pictures can be emptied onto the floor and the children have to sort the mail into the correct envelops.

- Change the beginning sounds in familiar tunes. Sing the following song to the tune of "Someone's in the kitchen with Dinah" (Yopp, 1992:701):

I have a song that we can sing
 I have a song that we can sing
 I have a song that we can sing
 It goes something like this:

Fe - Fi - Fiddly - i - o
 Fe - Fi - Fiddly - i - o - o - o - o
 Fe - Fi - Fiddly - i - oooooo
 Now try it with the /z/ sound!

Ze - Zi - Ziddly - i - o
 Ze - Zi - Ziddly - i - o - o - o - o
 Ze - Zi - Ziddly - i - oooooo
 Now try it with the /br/ sound!

Bre - Bri - Briddly - i - o
 Bre - Bri - Briddly - i - o - o - o - o
 Bre - Bri - Briddly - i - oooooo
 Now try it with the /ch/ sound!

Che - Chi - Chiddly - i - o
 Che - Chi - Chiddly - i - o - o - o - o

Che - Chi - Chiddly - i - oooooo
Che - Chi - Chiddly - i - o!

The same type of letter substitution can be done with "Ee-igh, ee-igh, oh!" in "Old MacDonald Had A Farm" or with the words in "Happy Birthday to You". In addition, instead of just changing the beginning letter of the words, a particular syllable or letter could be substituted instead, for example, "La la lala la la" or "T t tt t t" (Yopp, 1992).

(ii) Beginning consonant same/different

- children are shown a picture and are told to listen to the beginning sound. Emphasize the beginning sound for them. Now have them listen to a word and tell if the word has the same beginning sound as the picture. Children can smile, raise their hands, or draw a happy face, etc, if the words begin with the same sound, and look sad, sit down or draw a sad face if the words do not begin with the same sound.

B. Ending sounds

(use the same activities as for beginning sounds except focus on the ending sound. Omit the activity of saying children's names with the sound of the day at the end).

C. Recognition of phonemes within words

ACTIVITIES

(i) Sound isolation activities

-children are given a word and asked to tell what sound occurs at the beginning or end.

- ▶ Use the following lyrics and sing to the tune of "Old Macdonald Had a Farm" (Yopp, 1992)

What's the sound that starts these words:

sun, snake and saw?

(wait for a response from the children)

/s/ is the sound that starts these words:

sun, snake and saw.

With a /s/, /s/ here, and a /s/, /s/ there,
Here a /s/, there a /s/, everywhere a /s/, /s/.
/s/ is the sound that starts these words:
sun, snake and saw!

What's the sound at the end of these words:
hop, cap and jump?

(wait for a response from the children)

/p/ is the sound at the end of these words:
hop, cap and jump.

With a /p/, /p/ here, and a /p/, /p/ there,
Here a /p/, there a /p/, everywhere a /p/, /p/.
/p/ is the sound at the end of these words:
hop, cap and jump!

(ii) Sound matching activities

-children are asked which of several words begins with a given sound or to generate a word beginning/ending with a particular sound.

- ▶ Show three pictures and ask the children which picture begins or ends with a particular sound. For example, show a picture of a dog, a horse and a rake. Ask the children which word ends with the /k/ sound (rake).
- ▶ Put several different pairs of pictures of items which begin with the same sound in an envelop. Children have to find the pairs of pictures which begin with the same sound. In another envelop, put several different pairs of pictures of items which end with the same sound. Children have to find the matching pairs.
- ▶ Sing the following lyrics to the tune of "Jimmy Cracked Corn and I Don't Care" (Yopp, 1992):

(all children sing this part)

Who has a /t/ word to share with us?

Who has a /t/ word to share with us?

Who has a /t/ word to share with us?

It must start with the /t/ sound!

(Ask a child or a child may volunteer to give a word that begins with the /t/ sound.) Then the child sings:

Table is a word that starts with /t/

Table is a word that starts with /t/

Table is a word that starts with /t/

Table starts with the /t/ sound!

- Ask children simple yes/no questions involving "Does _____ (word) start with the /___ / sound? For example, "Does **fish** start with the /f/ sound? and the children answer with a simple "yes" or "no". Also use ending sounds "Does **dog** end with a /k/ sound? The children can do this before they can go to the table to eat their snack, or before free-time. Also, children can sit in a circle and after they have individually answered a question, they can toss a soft toy or ball of wool to another child who then gets asked a question. The happy/sad face stick-puppets from the rhyming games can also be used.

D. Sound discrimination activities

-children are to indicate which word out of three, has a different beginning or ending sound. At first make sure that the sounds are very different, for example, do not use words together which begin with /m/ and /n/, /f/ and /v/, /b/ and /d/, or do not use words which rhyme. As the children get better at this, you can use words which are more similar in sound, for example, man, nose, mouse.

ACTIVITIES

- Say three words, two of which begin or end with the same sound. Say to the children " Listen to these words - (e.g. fish, dog, fan). Two of these words begin with the same sound and one is different. I want you to tell me which word begins with the different sound." The following song can be sung, substituting different words each time.

Say "fish, dog, fan". Then sing:
"One of these words **starts** different from the others.
Two of these words **start** just the same.
One of these words **starts** different from the others,
Can you guess before my song is done,
now my song is done."

Follow the same procedure and directions for ending sounds. Say "duck, rake, ham". Then sing:
"One of these words **ends** different from the others.
Two of these words **end** just the same.
One of these words **ends** different from the others,
Can you guess before my song is done,
now my song is done."

E. Sound isolation

-children are to pronounce the sound they hear in the beginning or ending position of a given word.

ACTIVITIES

- ▶ **Farmer's Hat.** Provide a farmer's hat and the picture of animals. Children will select a picture from a bag (box, barn, etc). Ask the child what is the beginning or ending sound. If they answer correctly, they can put the picture in the Farmer's Hat.
- ▶ **Going Fishing.** Cut shapes of fish from construction paper and glue on pictures of things (you could pick a theme for the pictures, such as animals, round things, or blue things). Laminate if possible. Place a paper clip by the mouth of the fish and spread the fish on the floor. Tie a small magnet to the end of a string and tie the other end of the string onto a small stick, ruler or child's fishing pole. Children take turns "fishing". When they catch a fish, tell them to say either the beginning sound or the ending sound of the picture. If they are correct they get to put their fish in a pail, if they are wrong they have to put the fish back in the

pond.

5. Practice activities

-Get in pairs and try out some of these activities. You don't have pictures to use with each other but you can use words. Try at least the two activities with a ● beside them in the left-hand margin. Discuss any questions or ambiguities you have regarding the activities.

6. Discussion of peer observations

-Pair up with another person in the inservice program. If possible, pair up with someone you work with. If you can, arrange to observe eachother using some of the activities discussed. If this is impossible, arrange to videotape yourself using some of the activities from level III.

-You will need to get written permission from parents to videotape yourself because the children will also be on the videotape. If there are any problems, discuss them with the facilitator.

-For the videotape or observations, pick activities which use sounds and focus on sounds. This is very important because we all think we are using the sounds in the correct way but when we look at ourselves on videotape, for example, sometimes we see that we are not always doing what we think we are doing: we may not be pronouncing the sounds correctly. If you do videotape yourself, it is useful to watch it and analyze yourself.

-When observing another participant or watching your own videotape, look at the children to see if they are participating in the activity, to see if they are interested. Also listen to the participant (or yourself) to see if the sounds are being pronounced correctly. Too much emphasize on

sounds distorts the actual sound within words as we speak, and if too little emphasis is placed on a sound then children may not recognize what you are trying to teach them.

-Some things to observe:

- ▶ The actions or interest level of the children.
- ▶ Are the children doing the activities correctly?
- ▶ The participants' use of the sounds
 - Are the sounds overpronounced? underpronounced?
 - Are the sounds pronounced correctly?
 - Can the participant better pronounce certain sounds? If so, how?

-Some activities to administer for observation:

- ▶ Beginning consonant same/different activities
- ▶ Ending consonant same/different activities
- ▶ Any activities for recognition of phonemes within words
- ▶ Sound isolation activities

Pick one or several activities to videotape or have someone observe.

INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

Participant's Session 3

OBJECTIVES

- ▶ provide time to discuss problems, concerns, etc.
- ▶ provide time to discuss videotape or observation of partner
- ▶ provide an explanation of and activities for levels IV and V
- ▶ provide an opportunity to practice some activities

OUTLINE

1. Discussion of problems, concerns, etc.
 2. Discussion of videotape or observation of partner
 3. Discription of level IV - Blending
 4. Discription of level V - Segmenting
 5. Practice activities
 6. Peer observation
 7. Discussion of administration of post test
-

1. Discussion of problems, concerns, etc.

2. Discussion of videotape or observation of partner

Discuss:

- ▶ The actions or interest level of the children.
- ▶ Are the children doing the activities correctly?
- ▶ The participants' use of the sounds
 - Were the sounds overpronounced? underpronounced?
 - Were the sounds pronounced correctly?
 - Can the participant better pronounce certain sounds? If so, how?
- ▶ Do they see any improvement in the children in these areas as a result of doing these activities?

3. LEVEL IV - BLENDING

-Blending requires children to manipulate individual sounds by combining them to form a word. Given a series of isolated sounds (e.g., /b/-/a/-/t/), children blend them together (e.g., "bat")." (Yopp, 1992, p. 700). Children listen to a series of two or three isolated sounds and blend them together to make a word.

-Beginning instruction in blending requires the use of a limited number of phonemes (i.e. sounds of letters) helps children until they begin to generalize this ability to other phonemes. This set may contain fewer than 10 phonemes (Ball & Blachman, 1991; Byrne & Feilding-Barnsley, 1991; Hohn & Ehri, 1985). This set of phonemes usually contains long vowel sounds as opposed to short vowel sounds (Davidson & Jenkins, 1994; Hohn & Ehri, 1983) because their sounds are the same as the letter names (Murray, 1994). The following phonemes have been used by Blachman et al. (1994) - /a/, /m/, /t/, /i/, /s/, /r/, /f/, /b/. These phonemes were chosen because various combinations can produce many words. Use these phonemes to make up words for initial instruction in blending. Some examples of words made from these phonemes are:

it	at	am	rib	if
mit	fat	ram	fib	
sit	rat	tam	bib	
fit	sat	sam		
	tat	bam		
	mat			

-When segmenting the sounds for the children to blend, do not segment consonant blends or consonant digraphs, i.e., /bl/, /gl/, /sl/, /cl/, /fl/, /pl/, /br/, /cr/, /dr/, /fr/, /gr/, /pr/, /tr/, /str/, /sw/, /squ/, /sm/, /sn/, /sc/, /sk/, /st/, /scr/, /sp/, /th/, /sh/, /ch/, /wh/, /wr/, /kn/ and /ck/. In addition, do not segment vowel combinations or diphthongs, i.e. /ai/, /ay/, /ee/, /ea/, /oa/, /ie/, /oe/, /au/, /aw/, /oo/, /ar/, /or/, /ir/, /er/, /ur/, /ow/, /oy/, /oi/, /ou/, /ew/.

All these combinations only make one sound in words and should never be separated.

ACTIVITIES

- Use a puppet, stuffed animal or mythical creature and tell the children that it speaks in a different way. Choose two or three phoneme words (i.e., words with only two or three sounds in them). Use the words from the list above and ask the children if they can guess what the creature is saying.
- Choose rhyming words from stories, poems, and nursery rhymes that have been read many times to the children. Choose words which you can add different letters to the beginning of the word family to make new words (e.g., _at, _in, _up, etc. are word families). Have children guess what word you are saying. For this activity, do not segment the word family. For example, if you read the nursery rhyme "Hickory, Dickory, Dock" you could ask the children "What is the word I am thinking of? /d/-/ock/." The children respond "dock". Then ask "What is the word I am thinking of? /cl/-/ock/". The children respond "clock".
- Spider Web. Hold a ball of wool and say the phonemes in a two or three-phoneme word. Toss the ball of wool to a child but hold onto the end of the wool. The child who caught the wool repeats each of the phonemes and then blends them together to form the word. You then pronounce a new combination of phonemes and the child tosses the wool to a new child. Each child holds onto a piece of the wool in his/her hand when tossing. Continue until the web is formed, then sing a spider song, for example "Eensy, Weensy, Spider". Slowly rewind the wool as each child repeats his/her word and the phonemes (if the children are able to remember).
- Blending name line-up. Call the children to line up by

saying their names one phoneme (sound) at a time. When all the phonemes are pronounced, then all the children blend the word together. For example, call /K/-/a/-/th/-/y/ Kathy, /J/-/or/-/d/-/a/-/n/ Jordan, /Sh/-/au/-/n/ Shaun.

- What is in my bag? Put pictures of two or three phoneme words in a decorative gift bag. Put your hand in the bag and pick a picture but do not let the children see it. Ask "What do I have? It is a /d/-/u/-/ck/." Ask a child to guess what it is. Give the picture to the child who answers correctly and ask them to repeat the phonemes (sounds) and then the entire word. When all the pictures are used or all children have had a turn, the children put the pictures back in the bag. This game could be adapted to have the pictures in many things, such as a treasure chest, halloween bag, santa's sack, etc. Also, the children could try to repeat the segmented sounds after you say it as they put the picture back into the bag.
- If you think you know this word. Sing the following song to the lyrics of "If you're happy and you know it, clap your hands" (Yopp, 1992).

If you think you know this word, shout it out!
If you think you know this word, shout it out!
If you think you know this word,
Then tell me what you've heard,
If you think you know this word, shout it out!

Then say a segmented word such as "/d/-/o/-/g/" and the children say the blended word. For a quieter version, you can substitute the words "raise your hand" instead of "shout it out".

- Circle, Circle. The children sit in a circle on the floor. Each child is asked to guess the word you are saying (or use a puppet to say the segmented word). If the child is unable to answer correctly, s/he moves

outside the circle and forms another, outer circle. The winner is the child who remains in the inner circle all alone.

4. LEVEL V - SEGMENTING

-Segmenting "involves isolating and pronouncing all the sounds of a word in correct order" (Badenhop, 1992, 112). This is the opposite of blending in that blending involves the instructor segmenting the words and now the children are required to segment the words.

-In beginning instruction in segmenting, as with blending, the use of a limited number of phonemes (i.e. sounds of letters) helps children until they begin to generalize this ability to other phonemes. The same phonemes can be used with segmenting and was used with blending, i.e., /a/, /m/, /t/, /i/, /s/, /r/, /f/, /b/. These phonemes were chosen because various combinations can produce many words. Use these phonemes to make up words for initial instruction in segmenting. Some examples of words made from these phonemes are:

it	at	am	rib	if
mit	fat	ram	fib	
sit	rat	tam	bib	
fit	sat	sam		
	tat	bam		
	mat			

-Some researchers suggest that using letter names in conjunction with teaching segmenting skills increases the child's ability to remember the sounds they are segmenting (Bradley & Bryant, 1983; Hohn & Ehri, 1983; Murray, 1994). In teaching children to segment using the following activities, letter names and symbols will be introduced.

-This is one of the most difficult levels of phonemic awareness and the research on preschoolers ability to segment phonemes is contradictory. One study indicates that preschool children generally find it difficult to segment phonemes

(Lieberman et al., 1974) yet another found that once preschoolers have been taught, even those with significant language delays can learn to segment phonemes (O'Connor et al., 1993). Therefore, do not be discouraged if some preschoolers find this level challenging.

ACTIVITIES

(i) Iteration, or sound repetition

- ▶ Repeat beginning sounds while speaking or singing. For example, when calling attendance, repeat or draw-out the initial sound in a child's name - "K-K-K-K-Kim", "Ooooooooo-livia", "Ssssssss-am", "D-D-D-D-David" (Yopp, 1992, p. 701). Have the child repeat what you said and also show the letter you are stressing. The aim is to have the children do this independently.
- ▶ Read literature and poems that repeat the sounds in words through alliteration and assonance. Examine language use by commenting on the language, for example, say "Those words start the same - pig, purple and pumpkin." What sound do you hear at the beginning of these words - pig, purple and pumpkin? Yes, the /p/ sound." (Yopp, 1995). Then show the children the letter that the words begin with. [See Yopp, 1995 for a bibliography of read aloud books for developing phonemic awareness.]

(ii) Incomplete or partial segmentation

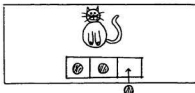
- Missing beginning sound. Use the words from the list above and ask a child to repeat it. For example, "Say mat." (Child says mat). "Say /at/." (Child says /at/). "What sound is missing?" (Child says /m/) (Rosner, 1993).
- Missing ending sounds. Use the words from the list above and ask a child to repeat it. For example, "Say mat." (Child says mat). "Say /m/." (Child says /m/). "What sound is missing?" (Child says /at/) (Rosner, 1993).

- Show pictures of one syllable words (these words can revolve around a theme such as animals, foods, colors, etc.). Say the name of the picture and the beginning sound and ask a child to say what they hear at the end. For example, "Fish begins with /f/, what do you hear at the end?" The response should be /ish/. When saying the beginning sound, also show the letter which corresponds to that sound.

(iii) Segment words into phonemes

- Say it and move it. (Use the words from the list above). Draw a line across the middle of a piece of paper. Use three blocks, counters, etc. Begin using one block at the top half of the paper and say one phoneme. As you say the phoneme, move the block to the bottom half of the paper. For example, as you say /t/ move the block down. Have children repeat this after you. Then use two blocks of the same color and say a phoneme twice. As you say the phonemes one by one, move a block down to the bottom of the paper to represent the phonemes. For example, say /t/ - /t/ then say /t/ and move one block down, then say /t/ and move the other block down. Once children can do this, then use two-phoneme words, using two different colored blocks. For example, say /it/ then move a block down as you say /i/ and then move a block down as you say /t/. After this is mastered, you can use three phoneme words, such as mit, rat, sam, etc. After some practice with this, print one letter on a block and continue to segment. Gradually add the other letters (Blachman et al., 1994).
[NOTE: It is important to use different colored blocks to represent different phonemes as this will help to distinguish the differences among the sounds and cue children to the differences among the letters when they are introduced].
- Elkonin boxes (developed by Russian psychologist, D.B. Elkonin). This strategy is used to help children think about the order of sounds in spoken words. Place a

simple concrete picture which children would recognize on an index card. Below the picture, draw a matrix that contains a box for each phoneme (not letter) in the word. Say the word slowly. As you say each sound, push blocks, counters, etc., into the boxes. Encourage the child to help by moving the counters and saying the sounds. Eventually, the child should be able to do this independently. As the children are able to do this, it can be made more difficult by removing the matrix, and using only the blocks and by removing the picture (Griffith & Olson, 1992). Letter blocks, letter tiles or pieces of paper with the letters written on them, can be used by the children in place of the blocks, counters, etc.



- How many sounds do you hear? Say words containing two or three phonemes and ask the children how many sounds they hear. The children can clap, tap or use blocks, counters, etc., to indicate the number of sounds (phonemes) in the word. For example, "How many sounds do you hear in *fish*?" Children will tap, clap etc., the sounds and then say "Three". As the children learn the letter/sound correspondences, have them take turns writing the words on a chalkboard or chart paper using the sounds they identified.

- "Listen, listen to my word." Sing the following song to the tune of "Twinkle, Twinkle, Little Star" (Yopp, 1992, 702):

Listen, listen, to my word
 Then tell me all the sounds you heard: **race**
 (slowly)
 /r/ is one sound
 /a/ is two

/s/ is last in race it's true.

Listen, listen, to my word
Then tell me all the sounds you heard: go
(slowly)
/g/ is one sound
/o/ is two
and that is all in go it's true.

As the children become familiar with the song, they can sing the segmented section independently.

- ▶ "Come on down to the word is right". Open a book, binder or file folder and stand it on a table like a voting partition. Place it on a table so a child has to go behind it and the other children cannot see the face of the child. Place blocks or counters, etc., behind the "booth". Show a picture to a child behind the "booth" and have them segment the word. If the other children think they know the word, they raise their hand. Pick a child to blend the segmented word. If the child is correct, s/he can be the next contestant on the "Word is Right". If the children know the letter / sound correspondences, the child who segments the word can write the corresponding letters to the word on a chalk board or chart paper. When the game is finished, have the children try to read the words they wrote by making the sounds to go with the letters and blending them together to read the word.
- ▶ Sound Board. Use a pocket chart or make one. With two strips of clear plastic (5cm x 40cm), staple it length ways onto a piece of bristol board so as to form a long pocket with each strip. Cut white bristol board into card shapes the same size as a deck of cards and print a letter from the list above on each card (use a different colored card or marker for the vowels). Spread the letters across in the top pocket. Say a word from the above list and ask the children to segment it. Then as you repeat what they said, move the letters which

correspond with the sounds down into the second pocket. Tell the children that now they have spelled the word. As you do several more examples, children will begin to move the letters down independently. Gradually add more letters. Over time, this can also work in reverse by putting the letters in the second pocket that spell a word and encouraging the children blend the sounds to read the word.

5. Practice activities

-Get in pairs and try out some of these activities. You don't have pictures to use with eachother but you can use words. Try the activities with a ● beside them in the left hand margin. Discuss any questions or ambiguities you have regarding the activities.

6. Peer Observations

-It will be worthwhile to observe another participant. Find a different partner to observe you or watch your videotape. You are encouraged to videotape several different activities if possible, as this allows both you and the observer to view and analyze several activities or methods. If you do videotape yourself, it is useful to watch it and analyze yourself.

-When observing another participant or watching your own videotape, look at the children to see if they are participating in the activity, to see if they are interested. Also listen to the participant (or yourself) to see if the sounds are being pronounced correctly. Too much emphasize on sounds distorts the actual sound within words as we speak, and if too little emphasis is placed on a sound then children may not recognize what you are trying to teach them.

-It is difficult to segment words into phonemes and not the

letters, so much practice may be needed to get this right!

-Some things to observe:

- ▶ The actions or interest level of the children.
- ▶ Are the children doing the activities correctly?
- ▶ The participants' use of the sounds
 - Are the sounds overpronounced? underpronounced?
 - Are the sounds pronounced correctly?
 - Can the participant better pronounce certain sounds? If so, how?

-Some activities to administer for observation:

- ▶ Mythical creature that speaks in a different way
- ▶ Spider Web
- ▶ Blending name line-up
- ▶ What is in my bag?
- ▶ "If you think you know this word"
- ▶ Missing beginning sound
- ▶ Missing ending sounds
- ▶ Say it and move it
- ▶ Elkonin box
- ▶ "Listen, Listen to my word"

-Discuss any questions or concerns with your partner or the presenter.

7. Discussion of administration of post-test

-As was stated in the first class, research has found that one of the first skills needed to facilitate reading and deter reading failure, is that of phonemic awareness. Research has also shown that phonemic awareness is a better predictor of early reading acquisition than IQ tests, vocabulary acquisition, or listening comprehension. In other words, children who perform poorly on tests of phonemic awareness ability, usually perform poorly in reading and spelling achievement.

-Since most of the activities have been discussed and before

our next session, most of the activities will have been tried with the students, it is time to retest them to see if they have become more phonemically aware.

-The same test that was administered at the beginning of this inservice should be administered to the children again a few days prior to Session 4. A different colored pen should be used to show the differences in the children's responses. The tests should be brought to the next session and the responses will be discussed.

**INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS**

Participants's Session 4

OBJECTIVES

- ▶ provide time to discuss problems, concerns, etc.
- ▶ provide time to discuss videotape or observation of partner
- ▶ provide an explanation of and activities for level VI
- ▶ provide an opportunity to practice some activities
- ▶ provide an opportunity to discuss results of pre/post test
- ▶ provide an opportunity to evaluate inservice

OUTLINE

1. Discussion of problems, concerns, etc.
 2. Discussion of videotape or observation of partner
 3. Discription of level VI - Phoneme Manipulation
 4. Practice activities
 5. General recommendations and reminders for phonemic awareness activities
 6. Discussion of results of pre/post test
 7. Inservice Evaluation
-

1. Discussion of problems, concerns, etc.

2. Discussion of videotape or observation of partner

-discuss:

- ▶ The actions or interest level of the children.
- ▶ The participants' use of the sounds
 - Were the sounds overpronounced? underpronounced?
 - Were the sounds pronounced correctly?
 - Can the participant better pronounce certain

sounds? If so, how?

- Do they see any improvement in the children in these areas as a result of doing these activities?

3. LEVEL VI - PHONEME MANIPULATION

-This is the most difficult level in phonemic awareness. It requires the child to delete, add, or substitute phonemes. Often, a child is not able to master this skill until formal reading and writing instruction has begun, thus, is not typically mastered by young preschool children. Consequently, this level can be tried by participants dealing with these children, but it is not expected that the children will master these skills at such a young age.

REMEMBER: Say the phoneme **sound** and not the letter name.

ACTIVITIES

These activities can be played with a board game whereby the child has to answer the question correctly in order to take his/her turn.

(i) Specifying phonemes that have been deleted or added

- Say the sound that is missing. When given a pair of words almost identical except that the first one has an extra sound, the child has to say the sound that was left out. For example, "Say meat." (Child says meat). "Now say eat". (Child says eat). "What sound is missing?" (Child say /m/). Do this also with ending sounds. For example, "Say make. Now say may. What sound is missing in may that you heard in make?" (Badenhop, 1992).

The following is a list of some words suitable for this activity (Rosner, 1993):

(r)oar	(p)ink	(b)all	(j)ar
(l)ake	(l)it	(l)ash	(g)ear

(v)an	(p)age	(p)each	(b)ait
(h)arm	(j)oke	(f)or	(d)ate
(b)oil	(c)art	(l)ark	(p)up
(j)am	(w)ill	(h)ad	(h)air
(g)old	(c)ame	(h)as	(d)ear
(b)ar	(w)ink	(s)old	(d)itch
(g)ate	(b)eg	(s)our	(m)ice

- Say the sound that is added. When given a pair of words almost identical except that the last one has an extra sound, the child has to say the sound that was added. For example, "Say *and*." (Child says *and*). "Now say *band*." (Child says *band*). "What sound did we add?" (Child says /b/). Do this also with ending sounds. For example, "Say *key*. Now say *keep*. What sound is missing in *key* that you heard in *keep*?" (Badenhop, 1992).

The following is a list of some words suitable for this activity (Rosner, 1993):

wa(ke)	fee(l)	bi(ke)	sa(me)
boi(l)	sta(ge)	ra(ce)	tra(i)n
goa(t)	sea(l)	ho(pe)	ti(re)
si(de)	pa(ge)	li(fe)	tee(n)
ba(se)	gra(pe)	bi(te)	la(te)
boa(t)	na(me)	ro(de)	soa(k)
ba(se)	fir(m)	toa(d)	i(ce)
li(ke)	mi(te)	loa(f)	stor(m)
ty(pe)	mea(t)	pi(ke)	bea(m)

(ii) Deleting and adding phonemes

- Take-away game. Have children delete a phoneme from a spoken word. For example, "Say *meat*". (Child says *meat*). "Now say it without the /m/ sound." (Child says *eat*).
- Adding-on game. Have children add a phoneme to a spoken word. For example, "Say *eat*." (Child says *eat*). "Now say it with a /m/ at the beginning?" (Child says *meat*). Or

"Say way. Now say it with a /k/ at the end."
Use the words from the lists above.

(iii) Substitute a phoneme

- Substitute a phoneme in a spoken word after the phoneme is specified and a new phoneme supplied. For example, "Say mend. Now say it again, but instead of /m/ say /s/." Or "Say bake. Now say it again, but instead of /k/ say /s/." (Badenhop, 1992).

The following is a list of some words suitable for this activity (Rosner, 1993):

Say sad	Now say it again, but instead of /s/ say /m/	mad
Say tan	Now say it again, but instead of /t/ say /m/	man
Say sat	Now say it again, but instead of /s/ say /t/	tat
Say my	Now say it again, but instead of /m/ say /s/	sigh
Say make	Now say it again, but instead of /m/ say /t/	take
Say kill	Now say it again, but instead of /k/ say /m/	mill
Say call	Now say it again, but instead of /c/ say /t/	tall
Say task	Now say it again, but instead of /t/ say /m/	mask
Say cash	Now say it again, but instead of /c/ say /s/	sash
Say goat	Now say it again, but instead of /g/ say /b/	boat
Say toss	Now say it again, but instead of /s/ say /m/	tom
Say bait	Now say it again, but instead of /t/ say /s/	base
Say lace	Now say it again, but instead of /s/ say /t/	late
Say rack	Now say it again, but instead of /k/ say /t/	rat
Say gate	Now say it again, but instead of /t/ say /m/	game
Say mite	Now say it again, but instead of /t/ say /s/	mice
Say seat	Now say it again, but instead of /t/ say /k/	seek
Say fake	Now say it again, but instead of /k/ say /s/	face
Say well	Now say it again, but instead of /l/ say /t/	wet
Say face	Now say it again, but instead of /c/ say /t/	fate

4. Practice activities

-Pair-up with another participant and try out some of these activities. Try the activities with a • beside them in the

left hand margin. Discuss any questions or ambiguities you may have regarding the activities with your partner or the presenter.

5. General recommendations and reminders for phonemic awareness activities

- Make the activities fun. Avoid drill and rote memorization (Yopp, 1992).
- Do the activities in a group so as to encourage interaction among the children (Yopp, 1992).
- Be positive and enthusiastic even when children are having difficulty grasping a concept.
- Allow for and be prepared for individual differences among children. Some children may catch on quicker than others (Yopp, 1992).
- Phonemic awareness instruction should depend entirely on the needs of the child and need not follow a rigid pattern (Badenhop, 1992).
- Phonemic awareness activities need to be conducted in conjunction with meaningful interaction with literature. Discussions and activities involving the main idea, setting, problem, solution, etc. of children's books, reading aloud to them, language experience charts, predictable books should continue to be taught. The activities in this inservice are meant to be a supplement to such experiences.
- Conducting these activities for a few minutes daily can maximize children's "...potential to have a successful experience learning to read" (Yopp, 1992, p. 703).
- "Extensive research has indicated the importance of

phonemic awareness as prerequisite for understanding the alphabetic principle, namely that letters stand for the sounds in spoken words" (Griffith & Olson, 1992, p. 522).

- Phonological awareness skills should not be taught alone. They need to be taught in conjunction with meaningful literary experiences, namely, listening to appropriate and good quality children's literature and learning the letters of the alphabet and its sound-symbol relationships. These activities are necessary in order for children to apply the phonological awareness skills of blending to the task of decoding words and the skill of segmenting to the task of encoding for spelling (Badenhop, 1992).

6. Discussion of results of pre/post-test

-What differences, if any, did you find in the results of the pre-test and the post-test?

-There may be reasons for not finding improvement in some areas, such as, not enough activities or time given on a particular skill for the child to have mastered it, the child may not have understood the directions, or the child may not be cognitively ready to master a particular skill especially the higher level skills.

7. Inservice Evaluation

-Please complete the inservice evaluation form for this inservice. It can be found on the last page of this session's notes. Your comments are greatly appreciated and will be considered when planning the next inservice on phonemic awareness.

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INSERVICE PROGRAM ON PHONEMIC AWARENESS
FOR TEACHERS AND EARLY CHILDHOOD EDUCATORS

INSERVICE EVALUATION

1. Was everything explained clearly, i.e., use of terms, theory, activities?

Yes _____ No _____

Comments _____

2. Was the length of each session

too long? _____ too short? _____ just right? _____

Comments _____

3. Did you find the peer observations

helpful? _____ not helpful? _____

Comments _____

4. Was the time between each session

too long? _____ too short? _____ just right? _____

Comments _____

5. This inservice consisted of four two-hour sessions spread out over a three month period. Do you prefer this type of inservice or would you prefer to have a whole-day inservice?

four short sessions _____ one whole-day session _____

Comments _____

6. Did you find the assigned readings

helpful? _____ not helpful? _____ too technical? _____

Comments _____

7. Do you plan on using the activities discussed in this inservice in the future?

Yes _____ No _____

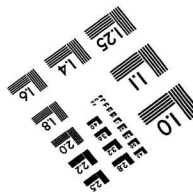
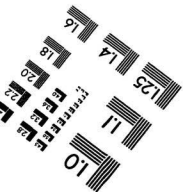
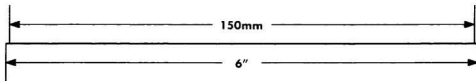
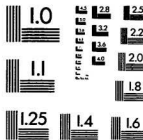
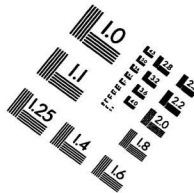
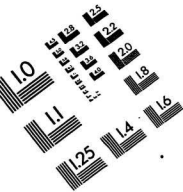
Why or why not?

8. Were there any topics that should have been expanded? included more information? given more examples?

9. Other comments and/or suggestions

THANK YOU

IMAGE EVALUATION TEST TARGET (QA-3)



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