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Phonemic Awareness: The Nature and Role in Reading Acquisition

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PHONEMIC AWARENESS: THE NATURE AND ROLE IN READING ACQUISITION

A Project Report

Presented to

The Graduate Faculty

Central Washington University

In Partial Fulfillment

of the Requirements for the Degree

Master of Education

Reading Specialist

by

Toni Michelle Paganelli

July 2007
ABSTRACT

PHONEMIC AWARENESS: THE NATURE AND ROLE IN READING ACQUISITION

By

Toni Paganelli

July 2007

Phonemic awareness and its link to reading are a current topic in education. Research has shown that the two are interrelated and those students lacking in phonemic awareness are at a higher risk for reading failure. The terms phonemic awareness and phonics tend to be used simultaneously, but phonemic awareness is not the same as phonics. Children can naturally acquire phonemic awareness through their environment. However, children who are lacking phonemic awareness can be taught using many different methods and materials in the classroom. Within phonemic awareness there are many different skills. These skills can be tested using commercially produced phonemic awareness assessments. The results of these assessments can be used as early predictors for reading success.

This project is a web page developed to educate parents of kindergarten children about phonemic awareness. The project also provides parents with ideas and links for related practice.
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CHAPTER I

BACKGROUND OF THE PROJECT

Introduction

Reading is an essential skill for success. The acquisition of phonological and phonemic awareness skills has been linked to reading development. For this reason classroom teachers should work on fully developing phonemic awareness skills along with reading skills to ensure reading success. In the position statement *Phonemic Awareness and the Teaching of Reading* from the Board of Directors of the International Reading Association [IRA] (1998) it has been stated that it is a fact that phonemic awareness predicts reading success. This statement is further explained:

One likely explanation is that phonemic awareness supports understanding of the alphabetic principle—an insight that is crucial in reading an alphabetic orthography. The logic of alphabetic print is apparent to learners if they know that speech is made up of a sequence of sounds (that is if they are phonemically aware). (p.4)

Phonemic awareness is “the knowledge that spoken words consist of a sequence of individual sounds, and the understanding that phonemes (sounds) are rearranged and substituted to create new words. There are a finite set of phonemes which are arranged and rearranged to create an infinite set of spoken words” (Southwest Education Development Laboratory [SEDL], 2000, [www.sedl.org/reading/framework/glossary.html](http://www.sedl.org/reading/framework/glossary.html)). Components of phonemic awareness include phoneme isolation, phoneme identity, phoneme categorization, phoneme blending, phoneme segmentation, phoneme deletion, phoneme addition, and phoneme
substitution. “Early readers can show they have phonemic awareness in several ways, including recognizing which words in a set of words begin with the same sound, isolating and saying the first or last sound in a word, combining or blending the separate sounds in a word to say the word, and breaking or segmenting a word into its separate sounds” (Partnership for Reading, 2001, www.nifl.gov/partnershipforreading/glossary/glossary.html). These areas of phonemic awareness develop naturally with children who have had many experiences with print and literacy. Those children lacking phonemic awareness need to be deliberately taught (McCracken and McCracken, 2002). These skills can be taught to children using simple, short activities that focus specifically on that area of development.

The broader spectrum of phonemic awareness is phonological awareness. Phonological awareness is “the understanding that speech is composed of sub-parts – sentences are comprised of words, words are comprised of syllables, syllables are comprised of onsets and rimes, and can be further broken down to phonemes” (SEDL, 2000, www.sedl.org/reading/framework/glossary.html). “An onset is the initial consonant(s) sound of a syllable (the onset of bag is b-; of swim is sw-). A rime is the part of the syllable that contains the vowel and all that follows it (the rime of bag is –ag; of swim, -im). Not all syllables or words have an onset, but they all have a rime (e.g., the word or syllable “out” is a rime without an onset)” (OSPI, 2004, p.50). Rhyming and counting syllables are two specific skills included under phonological awareness. These skills in conjunction with the previously stated phonemic awareness skills make up the complete package of a phonologically aware student. Longitudinal studies by Bradley and Bryant (1983), Ellis and Large, (1987), and Wood and Terrell, (1998a) have shown
that rhyme detection ability (a skill in phonological awareness) in pre-school children appears to be the best predictor of reading ability. Research compiled by the National Reading Panel [NRP] (2000), states:

Phonemic awareness is thought to contribute to children’s ability to read words in various ways. Decoding words requires blending skill to transform graphemes into recognizable words. Reading words by analogy (e.g., reading brick by knowing how to read kick) require onset-rime segmentation and blending skill.

[p.2-12]

Yopp (1995) concludes that “phonemic awareness is a more potent predictor of success in reading than IQ or measures of vocabulary and listening comprehension, and that if it is lacking, emergent readers are unlikely to gain mastery over print” (p. 28). It is an educator’s job to make sure that students have many different experiences working with print and quality literature so phoneme isolation, identity, categorization, blending, segmentation, deletion, addition, and substitution skills are developed fully. This project will emphasize the development of phonemic awareness for those lacking these skills.

Purpose of the Project

This project includes a web page that can be utilized prior, during, and after the kindergarten school year. The information provided on the web page incorporates phonemic awareness skills through interactive website games and other user-friendly activities. The project is meant to improve parent awareness and involvement with their child along with the development of phonemic awareness skills for their child. The author chose a web page project as a way to provide parents with hands-on information about phonemic awareness and activities for their children to
develop and practice phonemic awareness skills. Battle-Bailey (2004) commented on research by Piaget (1954/1981) who stated “Children learn best when they have opportunity to interact with their environments” (p. 38). Battle-Bailey (2004) explained “Parents are a crucial part of children environments; therefore, teachers must create avenues for increasing parent-student interactions” (p. 38). Research by Hoover-Dempsey and Sandler (1995) stated “We suggest that the impact of parental involvement on children’s educational outcomes will be tempered or mediated by the parent’s use of developmentally appropriate activities and strategies. To the extent that parents choose activities and strategies that are developmentally appropriate for a given child, and are perceived as appropriate by the child, their involvement will have the potential for positive impact on educational outcomes” (p. 323). Therefore, supplying parents with developmentally appropriate activities, which will reinforce the phonological and phonemic awareness skills identified as in need of intensive intervention, should result in positive gains by the student if used consistently by the parent.

A web page can be accessed at leisure by parents, making it very convenient. The information in the web page has been presented without a surplus of educational jargon to alleviate any confusion or overwhelming effects that may arise when teachers offer new information. Previous information distributed to parents via newsletters has been ineffective at the author’s school. For this reason a web page seemed to be a more efficient choice of communication. Research by Ehri, Nunes, Willows, Schuster, Yaghoub-Zadeh and Shanahan (2001) stated the following.

Various forms of phonemic manipulation help children to acquire phonemic awareness. Being able to identify or categorize the phonemes in words, segment
words into phonemes, blend phonemes to form words, delete phonemes from words, or manipulate onsets and rimes in words all develop phonemic awareness. Educators should recognize that acquiring phonemic awareness is a means rather than an end. Phonemic awareness is not acquired for its own sake but rather for its value in helping learners understand and use the alphabetic system to read and write. That is why it is important to include letters when teaching children to manipulate phonemes and why it is important to be explicit about how the children are to use the phonemic awareness skills in reading and writing tasks. (Ehri, et al., 2001, p.279)

This means that as the child and parent(s) are practicing skills, they will be linking the skills with the graphemes (letters). By teaching letter names in conjunction with the phonemic awareness skills, students become further prepared for early reading. Many of the activities provided on the web page refer to the letter name while teaching the specific phonemic awareness skill, thus providing the link between letters and sounds.

Significance of the Project

In 1992, the Washington State Commission on Student Learning began to develop student performance standards called Essential Academic Learning Requirements [EALRs] (Office of Superintendent of Public Instruction [OSPI], 2004). These standards have been developed to help guide schools and parents in giving their students the knowledge and skills necessary to succeed in society today. In reading, EALR 1 is “The student understands and uses different skills and strategies to read.” The Grade Level Expectation (GLE) for kindergarten under 1.1.2 is Understand and apply phonological awareness and phonemic awareness. 1.1.2 is further defined as:
- Substitute auditorially one phoneme for another to make a new word (e.g., beginning and ending sounds; oddity tasks).
- Discriminate auditorially rhyme and identify rhyming words in response to an oral prompt.
- Manipulate and segment words orally by onset and rime.
- Segment and blend two and three phoneme words orally. (OSPI, 2004, p. 1)

Many of the students entering kindergarten at the author’s school are not prepared with these phonological and phonemic awareness skills. It is the teacher’s responsibility to make sure that each child meets the grade level expectations set by the state. The website is designed to aide parents as they work with their children building basic phonemic awareness skills prior to kindergarten entrance, reinforcing phonemic awareness skills learned during the school year, and aiding in the retention of phonemic awareness skills over the summer. Retention of skills during the summer is significant at the author’s school. Last year, 89% of the author’s students exited the classroom with 90% or better mastery on the Emergent Literacy Survey (ELS) and Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessments. Fall entrance scores for first grade were somewhat lower, indicating that students are not retaining all of the learned information without practice during the summer. Therefore, activities to reinforce phonemic awareness skills would be beneficial.

Limitations of the Project

This project is for the kindergarten classroom. It is a web page that will provide those students lacking in phonological awareness and phonemic awareness skills with
links and ideas for practice. The project includes only a selection of activities that can be used to effectively teach phonemic awareness. Only 89% of the author’s current class has internet access. Those without internet access will not be able to access the web site from home; therefore, the web page will not be an asset for them. The project has not yet been translated into Spanish, which could affect 10% of the author’s current class.

Definition of Terms

All sources of definitions for the following terms are cited and included in the reference section. The following terms have been defined for the purpose of this project.

**Alliteration:** “The repetition of initial phoneme either across syllables or across words.

For example, ‘Happy hippos hop on Harry’” (Southwest Educational Development Laboratory [SEDL], Glossary of Reading Terms, 2000, [www.sedl.org/reading/framework/glossary.html](http://www.sedl.org/reading/framework/glossary.html)).

**Alphabetic Principle:** “Understanding that spoken words are decomposed into phonemes, and that the letters in written words represent the phonemes in spoken words when spoken words are represented in text” (SEDL, Glossary of Reading Terms, 2000, [www.sedl.org/reading/framework/glossary.html](http://www.sedl.org/reading/framework/glossary.html)).

**Essential Academic Learning Requirements (EALR):** Student performance standards developed for Washington State students by the Washington State Commission on Student Learning which was established by the Legislature in 1992 (OSPI, 2004).

**Grapheme:** “A unit (a letter or letters) of a writing system that represents one phoneme;
a single symbol that has one phonemic correspondent within any particular word” (SEDL, Glossary of Reading Terms, 2000, www.sedl.org/reading/framework/glossary.html).

**Onset and rime:** “Parts of spoken language are syllables. An onset is the initial consonant(s) sound of a syllable (the onset of bag is b-; of swim is sw-). A rime is the part of the syllable that contains the vowel and all that follows it (the rime of bag is -ag; of swim, -im). Not all syllables or words have an onset, but they all have a rime (e.g., the word or syllable “out” is a rime without an onset)” (OSPI, 2004, p. 50).

**Phoneme:** “Phonemes are the smallest units of sound that change the meanings of spoken words. For example, if you change the first phoneme in bat from /b/ to /p/, the word bat changes to pat. English has about 41-44 phonemes. A few words, such as a or oh, have only one phoneme. Most words have more than one phoneme. The word if has two phonemes /i/ and /f/” (National Institute for Literacy [NIFL], Glossary of Terms, 2001, www.nifl.gov/partnershipforreading/glossary/glossary.html).

**Phoneme (Phonemic) Awareness:** “A subset of phonological awareness; the knowledge that spoken words consist of a sequence of individual sounds, and the understanding that phonemes are rearranged and substituted to create new words. There are a finite set of phonemes which are arranged and rearranged to create an infinite set of spoken words” (SEDL, Glossary of Reading Terms, 2000, www.sedl.org/reading/framework/glossary.html).

**Phonics:** “A form of instruction to cultivate the understanding and use of the alphabetic
principle, that there is a predictable relationship between phonemes (the sounds in spoken language) and graphemes, the letters that represent those sounds in written language and that this information can be used to read or decode words” (NIFL, Glossary of Terms, 2001, www.nifl.gov/partnershipforreading/glossary/glossary.html).

**Phonological Awareness:** “The understanding that speech is composed of sub-parts—sentences are comprised of words, words are comprised of syllables, syllables are comprised of onsets and rimes, and can be further broken down to phonemes (phonological awareness at this level is usually described as phoneme / phonemic awareness)” (SEDL, Glossary of Reading Terms, 2000, www.sedl.org/reading/framework/glossary.html).

**Summary**

Phonological awareness skills are strongly linked with the development of reading. Parents and other child caregivers and educators must provide their children with a variety of meaningful experiences and activities that will foster the development of these skills. Children who are behind in the development of these skills by the end of first grade will often stay behind their peers that have successfully developed these skills. The remainder of this project will focus on phonological and phonemic awareness research and activities parents can use to provide, develop, and reinforce phonological and phonemic awareness skills in their children.
CHAPTER II
REVIEW OF THE LITERATURE

Introduction

The terms phonemic awareness and phonics tend to be used simultaneously, but phonemic awareness is not the same as phonics. Children can naturally acquire phonemic awareness through their environment. However, children who are lacking phonemic awareness can be taught using many different methods and materials in the classroom. Within phonemic awareness there are many different components. These skills can be tested using commercially produced phonemic awareness assessments. The results of these assessments can be used as early predictors for reading success.

This literature review will summarize the research about phonological and phonemic awareness and examine the link between phonemic awareness and reading.

Definition of Phonemic Awareness

Phonemic awareness is a subset of phonological awareness. Phonological awareness is "the understanding that speech is composed of sub-parts -- sentences are comprised of words, words are comprised of syllables, syllables are comprised of onsets and rimes, and can be further broken down to phonemes" (Southwest Educational Development Laboratory [SEDL], 2000, www.sedl.org/reading/framework/glossary.html). Phonemic awareness is "the knowledge that spoken words consist of a sequence of individual sounds, and the understanding that phonemes are rearranged and substituted to create new words. There are a finite set of phonemes which are arranged and rearranged to create an infinite set of spoken words" (SEDL, 2000, www.sedl.org/reading/framework/glossary.html). In simple terms this
means being able to manipulate print, focusing on sounds (phonemes) in spoken words. According to a position statement by the International Reading Association (IRA, 1998), phonemic awareness is “...typically described as an insight about oral language and in particular about the segmentation of sounds that are used in speech communication” (p. 3). A phoneme is “the smallest unit of speech that serves to distinguish one utterance from another (e.g. PAT and FAT are distinguished by the initial phoneme)” (SEDL, 2000). Ehri, Nunes, Willows, Schuster Yaghoub-Zadeh, and Shanahan, 2001 describe phonemes as the smallest units of sound that matter in a spoken language. The English language consists of about 41 phonemes. Richgels (2001, p. 274) stated, “...it is the combining and contrasting of phonemes that make words possible”. As Richgels (2001) further explained:

The phonemes /d/, /u/ and /k/ are combined to make the word duck, and the /d/ and /t/ phonemes are contrasted when distinguishing the words duck and tuck. The difference in the pronunciation of /d/ and /t/ is slight. It is only that for /d/ you use your voice and for /t/ you don’t; everything else is identical. Yet speakers and listeners rely on that very small difference, that contrast; it is all that signals two very different English meanings, an animal that says “Quack” versus a small fold sewn into a garment. (p. 274)

An individual who is phonemically aware is able to identify the sounds in the spoken word such as dog (/d/-/o/-/g/) and should also be able to blend phonemes together to form words. Phonemic awareness is often confused with the term phonics. Phonics is “a form of instruction to cultivate the understanding and use of the alphabetic principle, that there is a predictable relationship between phonemes (the sounds in spoken
language) and graphemes, the letters that represent those sounds in written language and that this information can be used to read or decode words" (Partnership for Reading, 2000, [www.nifl.gov/partnershipforreading/glossary/glossary.html](http://www.nifl.gov/partnershipforreading/glossary/glossary.html)). When an individual is asked to identify the letter that represents the first sound in the word cat as “c”, they are asking a phonics question. This is because they are showing that they understand letters (graphemes) linked with their letter sounds (phonics).

Explicit and systematic phonics instruction has been found to increase phonemic awareness (IRA, 1998), but phonics and phonemic awareness are very different. Displaying phonemic awareness does not mean that a child needs to be able to identify letters by name and link them to sounds. Phonemic awareness is strictly based on auditory skills. It is being able to understand that two words may sound the same, or rhyme, or a string of words may begin with the same letter sound (alliteration) (Wasik, 2001). Alliteration is “the repetition of initial phoneme either across syllables or across words. For example, "Happy hippos hop on Harry" (SEDL, 2000, [www.sedl.org/reading/framework/glossary.html](http://www.sedl.org/reading/framework/glossary.html)).

The Development of Phonemic Awareness

Research points to a developmental progression in which children acquire phonemic awareness (Adams, 1990). It is known that phonemic awareness skills develop progressively in difficulty. The unknown is the exact progression of each skill. Each researcher refers to a rank order which ranges from easy to difficult. The difference of opinion seems to be the order in which each skill is ranked.

Phonemic awareness seems to begin with having a strong oral language and print rich environment (McCracken and McCracken, 2002). This means children who are
raised in homes full of books, conversation, and experience will tend to show signs of strong oral language skills and thus acquire phonemic awareness. Reading books, listening to oral stories, and playing word games all contribute to the development of oral and written language (Norris and Hoffman, 2002). This continual interaction with children through singing and reading of nursery rhymes and other rhyming and alliterative works seems to lead to the natural development of phonemic awareness. Young children are able to recognize words that rhyme and begin with the same sound, because of the recurrent practice with nursery rhymes. Through the continued playing and hearing of language, children may also be able to recognize words with similar beginning and ending sounds.

Gough, Larson, and Yopp (2000) used statistical analysis to correlate performance across phonemic awareness tasks such as rhyming, initial sound awareness, and phoneme deletion. They also suggested that phonemic awareness tasks may be rank ordered from most simple to most difficult, such that each task is necessary for every more difficult task, and each task is sufficient for every easier task.

van Kleek (1998) proposed a two-stage model of preliteracy development that coordinated a variety of context, meaning, orthographic, and phonological processes. The first stage of this model focused on developments in literacy that emphasized print meaning, including phonemic awareness skills such as producing rhyme, segmenting words into syllables, and onset/rime awareness, whereas stage two emphasized form, including awareness of phonemes within words.

Yopp and Yopp (2000) state that there is evidence which shows that some tasks, such as segmentation and deletion are more difficult than others. Each educator should
ultimately make their own decision as to what tasks and order in which to teach phonemic awareness taking into consideration the level of development of the students at that time. The following is a list of phonemic awareness skills rank ordered from easy to difficult by Yopp and Yopp (2000). This list is only meant to be used as a guide by educators.

| Types of sound manipulation with examples using different linguistic units |
|-----------------------------|-----------------------------|-----------------------------|
|                            | Syllable                   | Onset-rime                  | Phoneme                    |
| Matching                   | Do these start with the same? sandwich | Do these start the same? start | Do these start the same? cat kite (yes) |
|                            | sandwich sandbag (yes)      | stand (yes)                |
| Isolation                  | What do you hear at the beginning of under? (/un/) | What do you hear at the beginning of black? (/bl/) | What do you hear at the beginning of bug? (/b/) |
| Substitution               | What word would you have if you changed the /bæ/ in baby to /may/? (maybe) | What word would you have if you changed the /bl/ in black to /cr/? (crack) | What word would you have if you changed the /ch/ in chain to /r/? (rain) |
| Blending                   | What word would you have if you put these sounds together: /pup/-/py/ (puppy) | What word would you have if you put these sounds together: /pl/-/ane/ (plane) | What word would you have if you put these sounds together: /p/-/l/-/l/-/n/ (plane) |
| Segmentation               | Tell the parts you hear in this word: table (/tæ/-/-ble/) | Tell the sounds you hear in this word: spoon (/sp/-/-oon/) | Tell the sounds you hear in this word: dog (/d/-/-o/-/g/) |
| Deletion                   | Say napkin without the /kin/. (nap) | Say grin without the /gr/. (in) | Say meat without the /m/. (eat) |

(p. 134)
The following tasks are ordered from easy to difficult based on the results from Schatschneider, Francis, Foorman, Flectcher, and Mehta (1999):

1. First sound comparison
2. Blending onset and rime.
3. Sound categorization
4. Blending phonemes into real words
5. Phoneme elision (deletion)
6. Phoneme Segmentation
7. Blending phonemes into nonwords (p.446)

Some reading curriculum texts such as Houghton Mifflin (2006) include sections on how to build phonemic awareness. This text, *Houghton Mifflin Reading Kindergarten* (2006), in particular begins with skills such as rhyming and same sound recognition. The series then moves on to blending and segmenting words and finales with phoneme deletion and substitution. By displaying the skills in such order infers the idea that phonemic awareness skills develop in different levels of difficulty.

The list provided by Schatschneider, Francis, Foorman, Flectcher, and Mehta (1999, p.446) varies from both Yopp and Yopp (2000) and *Houghton Mifflin Reading Kindergarten* (2006) in the order of phonemic awareness skill development. It can be concluded from reviewing the research that the exact path of phonemic awareness development is not known, but there is a definite link between degree of difficulty of task, developmental ability of the child and the sequence of development of skills.

Initial letter isolation, the ability to identify the initial letter sound of a word, such as the /k/ sound in cat or the /d/ sound in “dinosaur,” is one of the easiest tasks for young
children (Stahl & Murray, 1994). Wasik (2001) stated, “...initial letter isolation differs from the ability to produce words that have the same beginning sound, as it requires the child to separate the initial sound of a word from the whole word, as opposed to producing words that begin with the same sound, which is a more difficult skill” (p. 130).

As phonemic awareness progresses from rhyme and alliteration, children will develop the ability to blend onsets and rimes and segment onsets and rimes. An example of blending is add a sound (/p/) to the beginning of ink to give the word pink. To be able to perform phoneme deletion is to take away the beginning sound (/b/ from bad) to create a new word add (Pikulski, 1997). Being able to identify syllables in words is also a more complex skill. “By segmenting the syllables of words, children begin to understand that words can be broken down into chunks of sounds. The word “dinosaur,” for instance, is composed of three chunks of sounds: din-o-saur” (Wasik, 2001, p. 130).

Some of the most advanced skills within phonemic awareness include the ability to blend and segment phonemes. These last skills are the most challenging since the units (phonemes) are quite abstract (Pikulski, 1997). A child who is confident with blending would be able to tell the word bed is made from putting the sounds /b/ /e/ /d/ together. Segmenting phonemes is telling the three phonemes in the word bed /b/ /e/ /d/.

Segmenting is the skill that has been linked to invented (temporary) spelling. Invented spelling is a term linked to beginning spelling in which children spell phonetically instead of writing the exact word. An example is “I was watching TV at my house”. A student using invented spelling may phonetically write “I ys y tv a mi hs”. It is spelled by the child using only the sounds that he/she hears. This has also been linked to the skill of decoding in reading (Ehri, et al., 2001).
Teaching Phonemic Awareness

Students who enter kindergarten without phonemic awareness are thought to be lacking about five years of experiences that would lead to the natural development of phonemic awareness (McCracken and McCracken, 2002). Since the student is lacking in exposure, a deliberate phonemic awareness program should be in place to teach these skills. Research analyzed by Ehri, et al. (2001) stated the following.

Various forms of phoneme manipulation help children to acquire phonemic awareness. Being able to identify or categorize the phonemes in words, segment words into phonemes, blend phonemes to form words, delete phonemes from words, or manipulate onsets and rimes in words all help develop phonemic awareness.

Educators should recognize that acquiring phonemic awareness is a means rather than an end. Phonemic awareness is not acquired for its own sake but rather for its value in helping learners understand and use the alphabetic system to read and write. That is why it is important to include letters when teaching children to manipulate phonemes and why it is important to be explicit about how the children are to use the phonemic awareness skills in reading and writing tasks. (p.279)

This means that the curriculum a teacher decides to use to teach phonemic awareness should be used only as a piece within a classroom literacy program not taught in isolation. Focusing on one or two phonemic awareness skills has been found more effective than teaching a multitude of skills simultaneously (Ehri, et al., 2001). A teacher should choose one or two approaches and use them consistently and show the connection
between the skills and reading. The time spent teaching these skills should exceed no more than twenty hours in the school year (National Institute for Literacy [NIFL], 2001). Spending more time than this has not shown to be more beneficial.

There are many different ways in which to teach these phonemic awareness skills starting with the basic skills such as rhyming and alliteration (words that begin with the same sound). The key ideas are to provide children with print rich environments, hands on activities, and much oral language to learn, to communicate, and to understand language (Yopp and Yopp, 2000; McCracken and McCracken, 2002). Storybook reading, nursery rhymes, poetry and circle time activities give children opportunities to work with beginning sounds in oral language (Wasik, 2001). The most advantageous technique with which to teach phonemic awareness skills are those which are meaningful, engaging, motivating, and interesting to children. (Ehri, et al., 2001). Yopp and Yopp (2000) list and describe several different specific activities that build on the different phonemic awareness skills and also link them to reading skills such as decoding. Ehri, et al. (2001) state when educators teach children how to blend phonemes, represented by letters, this form of instruction is identified as decoding instruction.

Exactly how phonemic awareness instruction should be taught by teachers in their classrooms in not clearly specified by the National Reading Panel (2000), but a variety of programs were found to be effective (Ehri, et al, 2001). For storybook reading, Wasik (2001) recommends using some of the easier rhyming books by Dr. Seuss such as One Fish, Two Fish, Red Fish, Blue Fish; Hop on Pop; Green Eggs and Ham; and Wocket in My Pocket. These books show rhyming words in close proximity to one another and are simple for children to understand (Wasik, 2001). McCracken and McCracken (2002) also
suggest using nursery rhymes along with the repeated use of simple patterned chants such as (cats), here; (cats) there; (cats), (cats) everywhere. Using this chant and others within different themes throughout the year gives children many experiences working with memorized chants and exposure to many different rhyming words. Children should be able to manipulate the print by using pocket charts and word cards. This helps build print awareness along with phonological awareness. Yopp (1992) described specific tasks developed by Yopp and Ivers (1988) which also build upon students' knowledge of rhymes. These tasks use tunes from nursery rhymes but with different lyrics. The following sound matching example uses the tune “Jimmy crack corn and I don’t care” and notes that the tune focuses on the phoneme sounds not the letter:

Dog is a word that starts with /d/
Dog is a word that starts with /d/
Dog is a word that starts with /d/
Dog starts with the /d/ sound. (p.700)

Yopp (1992) commented on research by Yopp and Ivers (1988) in which using such tasks was found to produce significant gains in phonemic awareness.

Rhyming banks with pictures are another way in which to develop rhyming in children (McCracken and McCracken, 2002). Once students have had practice with rhyming words, students come up with words to rhyme with certain animals, numbers, etc. These rhyming word banks are used to create rhyme verses. Using the rhyme A Hunting we will go, McCracken and McCracken (1986) state “the students can replace fox and box with new rhyming pairs. We’ll catch a whale and feed him from a pail, we’ll catch a whale and put it in jail, we’ll catch a whale and put him up for sale are only a few examples of such verses” (p.107).
These rhyming words (with pictures for kindergarten) would remain up on the wall for use in developing daily chants. It is the repeated use of the words and complete engagement that make rhyming understood, thus creating phonological awareness.

<table>
<thead>
<tr>
<th>Figure 2</th>
<th>Word wall rhyme chart using animals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>cat</strong></td>
<td><strong>dog</strong></td>
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<tr>
<td><strong>mat</strong></td>
<td><strong>frog</strong></td>
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<td><strong>rat</strong></td>
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<td><strong>fat</strong></td>
<td><strong>bog</strong></td>
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<td><strong>brat</strong></td>
<td><strong>smog</strong></td>
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</tbody>
</table>

(McCracken and McCracken, p. 107)

The research by Steinhaus (2000) discusses the relationship between phonemic awareness and the alphabetic principle in the acquisition of literacy. The alphabetic principle is the "understanding that spoken words are decomposed into phonemes and that the letters in written words represent the phonemes in spoken words when spoken words are represented in text" (SEDL, 2000, [www.sedl.org/reading/framework/glossary.html](http://www.sedl.org/reading/framework/glossary.html)). The purpose of the study was to look specifically at the role that dialogue plays as an instructional strategy particularly focused on phonemic and alphabetic knowledge in a pre-kindergarten classroom. This is done through the combination of the differing perspectives of reading specialists and early childhood specialists. The methods used in this qualitative study were observations that were conducted in a natural setting for a period of seven months, two hours for both the morning and afternoon sessions. In addition to the observations, samples were drawn...
from collections of the children’s writing, drawing, and miscellaneous literacy materials. The results of the study are discussed through the reflections of the three students with very differing approaches to literacy. The discussion concludes that even though students arrive with different backgrounds and knowledge of literacy, instruction can still be effective for all students. However, effective instruction requires teacher focus, reflection, and a willingness to allow children’s background to intermix with the classroom context. Dialogue seems to be effective in accomplishing this goal.

A longitudinal study by Cooper, Roth, Speece, and Schatschneider (2002), with the focus question, “can phonological awareness skills from kindergarten through second grade be predicted from oral language skills and background variables measured in kindergarten” (p.405-406). There was also a second focus question, “to what extent can oral language skills measured in kindergarten be predicted from the background variables of family literacy, IQ, SES, and primary language measured in kindergarten” (p.406).

The kindergarten participants were a sample of 88 ethnically diverse Title I eligible students from the Mid-Atlantic States. There was a sub sample of “nonreaders” that included 51 children. There was also a second grade sample which consisted of 52 students, 19 of which were females and the other 33 males. The children were assessed in kindergarten and first and second grades on an assortment of background, language, and reading tasks. The discussion concludes that general oral language skill measured in kindergarten predicts a significant and meaningful proportion of unique variance in phonological awareness skills from kindergarten through second grade, beyond the influence of letter and word knowledge. As for the role of background variables, if they were to have any significant effect on the development of phonological awareness, the
effects can be changed by acquiring oral language. The suggestion by the researchers is that components of oral language, specifically semantics, syntax, and morphology, support beginning reading indirectly through their relationship with phonological awareness skills.

McCracken and McCracken (2002) believe that spelling directly teaches how print works. One recommended text by McCracken & McCracken (2002) is *Spelling Through Phonics*. This text begins by focusing on kinesthetic letters such as m, s, f, b, t, and c. This is because these letters make it easier for children to feel the position and movement of their mouth while making the sound. Being able to do this enables the student to recognize whether the given sound is found at the beginning or ending of a word. This program teaches students phonics while focusing on phonemic awareness tasks such as initial/ending consonants and segmentation.

"The process of learning letter-sound relations and how to use them to read and spell enhances children's ability to manipulate phonemes" (National Reading Panel [NRP], 2001, p.2-21). As the IRA (1998) states, "the greatest impact on phonemic awareness is achieved when there is both interaction with print and explicit attention to phonemic awareness abilities" (p. 5). In this approach, children learn to segment words into phonemes and to make words by writing letters for phonemes "Direct instruction in phonemic awareness, especially in how to segment words into phonemes, helps children relate the sounds to letters as they spell words" (NIFL, 2001). Ehri, et al. (2001) found research showed that teaching phonemic awareness with letters had more of an impact on reading and spelling than teaching phonemic awareness without letters. Research in NRP (2000) states Griffith (1991), "the processes involved in writing words, either by
generating approximate spellings of words or by retrieving correct spellings from memory, require phonemic segmentation skill”’ [p.2-12].

Phonemic Awareness Assessments

There are a number of assessments that can be used to test a child’s phonemic awareness skills. The results of these assessments help educators identify the skill area in need of intervention and also aid in tracking student progress. Some assessments such as Dynamic Indicators of Basic Early Literacy Skills [DIBELS] also offer online data entry programs to assist with tracking progress. Some schools use assessment information to qualify students for intervention programs.

According to Houghton Mifflin (2006) the development of the Emergent Literacy Survey (ELS), a phonemic awareness assessment, was established to obtain baseline data, to chart progress, to identify strengths and needs, to identify children needing early intervention and to evaluate program effectiveness. The phonemic awareness areas that are tested are rhyme, beginning sounds, blending onsets and rimes, segmenting onsets and rimes, phoneme blending and phoneme segmentation. The test is designed for use in kindergarten and first grade, but can be used with older children who are encountering substantial problems in learning to read (Houghton Mifflin, 2006). The instructions within the ELS manual support the previously stated opinion that phonemic awareness skills rank in difficulty. “Blending Onsets and Rimes and Segmenting Onsets and Rimes are more advanced phonemic awareness skills. These sections might be omitted if a child was unsuccessful with Rhyme or Beginning Sounds” (Pikulski, 1997, p. 6).

Kindergarten scores from the ELS are strong predictors for those in need of Title I assistance in first grade. That is why it is important to use the results from early testing in
kindergarten to find areas of most need. The ELS is only one example of the many different phonemic awareness tests that are available for use in the classroom. The test should be a proven tool for phonemic awareness assessment if it is going to be guiding a teacher’s curriculum.

Another phonemic awareness test is the DIBELS. The assessment has three levels of performance; intensive (needs substantial intervention), strategic (needs additional intervention), and benchmark (at grade level). This assessment tool was developed not only as a tool to assess the phonemic awareness skills of students, but also to test the competency of the core reading curriculum that is being used in the school. Good, Kaminski, Smith, Simmons, Kame’enui, and Wallin, 2002, state DIBELS is meant to “assist a school team in evaluating and planning components of effective beginning reading programs, including professional development, instruction, curriculum materials, and supplemental materials” (p. 2).

The DIBELS assessment consists of six literacy skills but the following are the only areas that would be assessed in Kindergarten as predictors of instructional needs in phonological awareness, alphabetic principle and accuracy and fluency with connected text:

- Letter naming fluency
- Initial sound fluency
- Phoneme segmentation fluency
- Nonsense word fluency

Each section provides a target age range and specifies beginning, middle and end so that the task is tested at the most appropriate time in the school year. “DIBELS school reports
indicate the percentage of students needing additional intervention. A high number of children needing intensive intervention indicate a concern about the core curriculum offered to all kindergarten students” (Good, Kaminski, Smith, Simmons, Kame’enui, and Wallin, 2002, p.3) Therefore, the teacher would then want to supplement the area in need with other materials. The teacher could also supplement with homework targeted towards working with the specific skill which has been identified to be in need of intervention.

The Yopp-Singer Test of Phoneme Segmentation (1995) “measures a child’s ability to separately articulate the sounds of a spoken word in order” (p.21). The administrator of the test gives examples of segmentation and then gives a word such as dog. The student is expected to say /d/-/o/-/g/. There are twenty-two test questions. The test is given individually with each student. The results of the test indicate how/if the student is phonemically aware. A high score shows phonemic awareness, a medial score indicates emerging phonemic awareness and a very low score indicates that the student may likely have difficulty with reading and spelling.

The assessment chosen by educators varies because of school district mandates, curriculum choice, or even personal preference. No matter which assessment is chosen or why, the overall objective is to assess skill areas in need of intervention and provide the right type of intervention all while monitoring and tracking student progress.

Linking Phonemic Awareness to Reading

The position statement *Phonemics Awareness and the Teaching of Reading* from the board of directors of the IRA (1998) stated that it is a fact that phonemic awareness predicts reading success.
One likely explanation is that phonemic awareness supports understanding of the alphabetic principle—an insight that is crucial in reading an alphabetic orthography. The logic of alphabetic print is apparent to learners if they know that speech is made up of a sequence of sounds (that is if they are phonemically aware). (p.4)

Longitudinal studies by Bradley and Bryant (1983), Ellis and Large, (1987), and Wood and Terrell, (1998a) have shown that rhyme detection ability (a skill in phonemic awareness) in pre-school children appears to be the best predictor of reading ability. Research reviewed by NRP (2000), states:

Phonemic awareness is thought to contribute to children’s ability to read words in various ways. Decoding words requires blending skill to transform graphemes into recognizable words. Reading words by analogy (e.g., reading brick by knowing how to read kick) require onset-rime segmentation and blending skill. (p.2-12)

Yopp (1995) concludes that “phonemic awareness is a more potent predictor of success in reading than IQ or measures of vocabulary and listening comprehension, and that if it is lacking, emergent readers are unlikely to gain mastery over print” (p. 28).

Though there are many connections that show the link between phonemic awareness and reading, the evidence has yet to prove if phonemic awareness develops before or simultaneously with reading. What is known is that without phonemic awareness, one is not able to read and also that readers show that they have phonemic awareness.
Parental Role in the Development of Phonological Awareness

Parents play an important role in the natural and deliberate development of phonological awareness. Reading to children and communicating throughout reading the text is one key method to promote phonemic awareness. A parent may comment on words that rhyme in a child’s favorite book or even stop before saying the rhyming word and wait for the child to fill in the next rhyme. This is just one example of communicating through text.

Battle-Bailey (2004) commented on research by Piaget (1954/1981) who stated “Children learn best when they have opportunity to interact with their environments” (p. 38). Battle-Bailey (2004) explained “Parents are a crucial part of children environments; therefore, teachers must create avenues for increasing parent-student interactions” (p. 38). Research by Hoover-Dempsey and Sandler (1995) stated “We suggest that the impact of parental involvement on children’s educational outcomes will be tempered or mediated by the parent’s use of developmentally appropriate activities and strategies. To the extent that parents choose activities and strategies that are developmentally appropriate for a given child, and are perceived as appropriate by the child, their involvement will have the potential for positive impact on educational outcomes” (p. 323). Therefore, supplying parents with developmentally appropriate activities, which will reinforce the phonological and phonemic awareness skills identified as in need of intensive intervention, should result in positive gains by the student if used consistently by the parent.

In a study by Evans, Shaw, and Bell (2000) home literacy activities and their influence on early literacy skills were researched. The study consisted of 67 kindergarten
children, 62 mothers and 5 fathers. The instruments used were a demographic questionnaire, a literacy practices questionnaire, a children's book title checklist, a child interview on parental coaching practices, cognitive measures as control variables, phonological and language measures, letter knowledge, and literacy skill. The results were that the act of reading with children without much discussion and additional activities had little significance on literacy development other than receptive vocabulary. However, when parents connected activities such as identifying letter names and letter sounds with the act of reading it predicted higher reading comprehension, phonological spelling and conventional spelling one and two years later. “Although the present authors do not argue for “hot-housing” children, it seems wise for parents to provide some coaching in learning about letters and how to break the code, and not to assume that reading books in itself will enhance their children’s literacy skills” (Evans, Shaw, and Bell, 2000, p. 73).

Parents do not have to overwhelm their child by drilling him with questions or practice in order to promote phonemic awareness. Fun games, conversation led reading, and purposeful conversing with the child give ample practice which leads to the natural development of phonemic awareness. If a child has been identified as being delayed in the development of phonemic awareness, a teacher can provide the parent more specific activities that will aid in acquiring these skills. Whichever the case, naturally developed or deliberately developed, the parent plays an important role in guiding their child as he acquires the needed skills.
Conclusion

The development of phonemic awareness skills progresses over time. Through this progression, reading skills also develop. Researchers have agreed that there is a degree of difficulty for each phonemic awareness skill. Yet, it is unclear whether the phonemic awareness skills develop before reading can occur or if phonemic awareness skills develop because reading skills develop. Even though the causal relationship between phonemic awareness and reading still remains in question, it is known that the two are correlated. It is also known that the lack of phonemic awareness has been linked to reading difficulties. To ensure that phonemic awareness skills are developed a combination of experiences should occur. These experiences should include a strong oral language background, a print rich environment, and a balanced literacy curriculum. In addition to these, lessons focused on developing phonemic awareness should also transpire. However, the time spent developing phonological awareness skills should be limited to no more than twenty hours throughout the school year.
CHAPTER III
PROCEDURES

The project originated because the author teaches Kindergarten and has noticed a significant need for the development of phonological awareness skills. The author, in teaching over seven years, observed a great difference in the abilities of the children in the classes. Due to the rising expectations in education since the No Child Left Behind (NCLB) Act of 2001 and the development of EALRs and GLEs, kindergarten standards are now similar to former first grade standards. Due to these higher standards, the author recognized that some students could use more practice time outside of the classroom in order to develop their phonological awareness skills. Therefore early, medial, and final intervention would be required for the children lacking in skills.

A review of research was needed. Sources were identified through the following: (1) Educational Resources Information Center (ERIC) database, (2) Proquest database, (3) various periodicals available at Central Washington University Library, and (4) internet searches. The information of the current research for the project was reviewed in the following areas: phonemic awareness, phonological awareness, and home literacy. This search produced multiple articles in the related areas. Other articles were found through cited reference pages. After reviewing the articles obtained, a formal review of literature for Chapter Two of the project was compiled and written.

The actual project was to create a web page that explains phonological and phonemic awareness to parents and offers activities which build and strengthen such skills. The author used the information researched as part of the literature review and applied it towards creating the web page. The author chose to make the web page as user-
friendly as possible by eliminating much of the educational jargon. The web page is designed to first define phonemic and phonological awareness and their importance in correlation to reading. Next, it leads into directions on how to use the web page. Last, the web page ends with examples, activities, and links for practicing the eight components of phonemic awareness. The eight components include phoneme isolation, phoneme identity, phoneme categorization, phoneme blending, phoneme segmentation, phoneme deletion, phoneme addition, and phoneme substitution. The author chose these eight components because they follow the sequential order displayed in the author’s reading series *Houghton Mifflin Reading Kindergarten* (2006). The activities and web sites were discovered through internet searches and from reviewed research.

The web page will be linked under the author’s school homepage for easy access. Parents could be notified of the web page during the district’s initial kindergarten orientation meeting in the spring, during registration, and through the school newsletter. However, the author’s intent during the school year is to notify the specific parents and their children who were identified as needing intensive intervention and have them use the web page as an additional tool to build the needed phonemic awareness skills. The author does not want students to over use the phonemic awareness activities and web sites and neglect other activities that will aid in the natural development of phonemic awareness.
CHAPTER IV

THE PROJECT

Phonemic Awareness the Link to Beginning Reading: A Webpage for Parents of Kindergarten Students

The terms phonemic awareness and phonics tend to be used simultaneously, but phonemic awareness is not the same as phonics. Children can naturally acquire phonemic awareness through their environment. However, children who are lacking phonemic awareness can be taught using many different methods and materials at home and in the classroom. Most students will master phonemic awareness skills with ease through classroom instruction; however some may need additional help outside of the classroom.

The purpose of the project is to create a web page to help parents understand phonological and phonemic awareness and its link to beginning reading. In addition to information, the web page also provides activities and links for practice before, during, and after the kindergarten year. Before kindergarten, the web page can be used as an introduction to phonemic awareness. This will provide parents with background information to understand some of the learning that will take place in the classroom. During kindergarten, the web page is designed to be used by students that have been identified through assessment tools as needing intensive intervention. It is the author's goal to have these parents and their students using the web page as part of a homework program during the school year. The teacher will meet with the parents and discuss the importance of additional practice at home and how to effectively use the web page to strengthen the specific phonemic awareness skills identified as needing intervention.
After kindergarten, the web page can be accessed as a practice tool to maintain phonemic awareness skills.

The author wants to stress the importance of continuing other activities such as reading with your child, having conversations to build oral language, and gaining hands-on life experience through exposure and investigation of the natural world. Phonemic awareness is just one piece of an elaborate puzzle. We need all of the pieces to become a strong reader and student.
Phonemic Awareness

The link to Beginning Reading: A webpage for Parents of Kindergarten Students
There are many components that contribute to your child being successful in reading. Some of the components are:

- Being read to since infancy.
- Talking with your child to develop strong oral language skills.
- Life experiences such as going to the grocery store, museum, beach, or library.
- Familiarity with print. Knowing how and why we use print in our lives.
- Developing phonological and phonemic awareness skills.
Purpose:

- The purpose of this webpage is to help parents understand phonological and phonemic awareness and their link to beginning reading. It also provides activities and links for practice before, during, and after kindergarten. It is meant to be used in conjunction with the classroom and not meant to replace other activities that will lead to the natural development of phonemic awareness.
Why is Phonological and Phonemic Awareness Important?

According to research phonemic awareness:
- is a strong predictor of reading success.
- improves children’s word reading and reading comprehension.
- helps children learn to spell when linked with letter names.
- develops a basic understanding of letter sounds by hearing, identifying, and manipulating (playing with) words.
What is Phonological Awareness?

- It is the broader spectrum of phonemic awareness. It is the understanding that speech has many different parts. For example, sentences are made up of words, words contain syllables, syllables include onsets and rimes which can then be further broken down to individual sounds (this last task is usually identified as phonemic awareness).

- A child that is phonologically aware will be able to pick out rhyming words, count syllables in words, in addition to being able to complete numerous other sound activities.
What is Phonemic Awareness?

- It is the ability to hear, identify, and manipulate individual sounds (phonemes) in spoken words.

- It is often confused with phonics, which is letter (grapheme) sound (phoneme) connection. Example “The letter A makes the sound /a/ as in apple.” Phonemic awareness is based on hearing sounds only. Not identifying it with a specific letter.

- It is a sub set of the broader topic Phonological awareness. It includes the subheadings:
  - phoneme isolation
  - phoneme identity
  - phoneme categorization
  - phoneme blending
  - phoneme segmentation
  - phoneme deletion
  - phoneme addition
  - phoneme substitution.

**Note: highlighted words are linked to the glossary page.**
Directions

1. Read through each description of the phonemic awareness subheadings. According to research, each subheading is listed in order of difficulty. Start with the first subheading.

2. Look at the provided activities under each subheading.

3. Using one of the provided skills or activities, interact with your child. Can he/she answer 3 or more questions with ease? If yes, then move on to the next subheading activities.

4. Repeat until an area of difficulty is found. Start practicing there.
Phonemic Awareness Subheadings

- Phoneme Isolation
- Phoneme Identity
- Phoneme Categorization
- Phoneme Blending
- Phoneme Segmentation
- Phoneme Deletion
- Phoneme Addition
- Phoneme Substitution
Phoneme Isolation

- The ability to recognize individual sounds in a word.

Teacher: What is the first sound in cat?
Student: The first sound in cat is /c/.

Teacher: What is the last sound in cat?
Student: The last sound in cat is /t/.

Activities
Phoneme Identity

- The ability to recognize the same sounds in different words.

Teacher: What sound is the same in ball, box, and bat?
Student: The first sound /b/ is the same.

Teacher: What sound is the same in cab, tub, and sob?
Student: The last sound /b/ is the same.
Phoneme Categorization

- The ability to recognize the word in a set of three or four words that has the “odd” sound.

Teacher: Which word doesn’t belong? Man, mop, sat.
Student: Sat doesn’t belong. It doesn’t begin with /m/.
Phoneme Blending

- The ability to listen to a sequence of separately spoken phonemes to form a word.

Teacher: When I say the sounds /b/, /u/, /s/. What word do you hear?
Student: I hear the word bus.
Phoneme Segmentation

- The ability to break a word into separate sounds (phonemes).

Teacher: What are the sounds in mop?
Student: The sounds in mop are /m/, /o/, /p/.
Phoneme Deletion

- The ability to recognize the word that remains when a phoneme is removed from another word.

Teacher: What is scat without the /s/?
Student: Scat without /s/ is cat.
Phoneme Addition

- The ability to make a new words by adding a phoneme to an existing word.

Teacher: What word do you have if you add /s/ to the beginning of pout?
Student: Spout.
Phoneme Substitution

- The ability to substitute one phoneme for another to make a new word.

Teacher: The word is cat. Change /c/ to /h/. What is the new word?
Student: Hat.
Activities Menu

- Phoneme Isolation
- Phoneme Identity
- Phoneme Categorization
- Phoneme Blending
- Phoneme Segmentation
- Phoneme Deletion
- Phoneme Addition
- Phoneme Substitution
Phoneme Isolation Activities

• What is the beginning sound in the word ____? Use words such as mop, soap, fog, ball, tiger, cat, etc.
  Note: using words that begin with sounds that are kinesthetic (position/action of the mouth can be easily felt and mimicked by the child) are easier in the beginning learning stage.

• What is the last sound in the word ____? Note: Again, begin with words that end in kinesthetically positioned sounds.

• Match the beginning sound with the correct sound/letter http://www.readwritethink.org/materials/picturematch/

• Where is the sound of ? Print a worksheet for a specific sound http://www.tampareads.com/phonics/whereis/index.htm

Activities Menu
Phoneme Identity Activities

- What sound is the same in ______, ________, ________? Choose 3 words that have either the same beginning sound or the same ending sound.
- Using objects from around the room, what sound is the same in all of these things? (ex. pencil, staple, candle = /l/ sound)
- Play sound match (words that begin with the same sound) or concentration (words with the same middle sound) on http://teacher.scholastic.com/clifford1/index.htm

Activities Menu
Phoneme Categorization Activities

• Which word doesn’t belong?
  cat, car, girl,  answer: girl, because it begins with /g/ not /c/.
  Continue playing with other sets of 3 or 4 words, keeping 1 word that is “odd”.

• Find the object that doesn’t belong. (put out 3 items with the same sound and 1 with different sound).

Activities Menu
Phoneme Blending Activities

• The Whirlyword Machine
  http://www.bbc.co.uk/schools/wordsandpictures/clusters/blender/index.shtml

• Wordblender
  http://www.bbc.co.uk/schools/wordsandpictures/clusters/blender/index.shtml

• Have a sock puppet who speaks "funny" by saying words syllable by syllable, or sound by sound for the children to figure out. The puppet can have children guess, /c/ /a/ /t/...He said ____!

• Alien Scavenger hunt
  http://www.earobics.com/gamegoo/games/alien/ashlo.html

• Gawain's Word
  http://pbskids.org/lions/games/gawain2.html

Activities Menu
Phoneme Segmentation Activities

• The word is cat. Let’s clap the sounds in cat. /c/clap /a/clap /t/clap. How many sounds are in cat? 3. Continue with other words.

• Using your arm separate beginning, middle and ending sounds. Using the word dog as an example, left arm out and right arm touching shoulder = beginning sound /d/, elbow = middle /o/, wrist = ending sound /g/. Then blend them together by individual sound /d//o00o//g/ slowly taking arm from shoulder to wrist. Then repeat this again quickly and say the word as you would say it in reading “dog”. Repeat with other words. Say it, break it into individual sounds, blend them together, and say it again.

• Punch word into the air. Using fingers, break the word into individual sounds. “Frog” /F/ put up first finger, /r/ put up second finger, /o/ put up third finger, /g/ put up last finger. Ask how many sounds (as you are holding up 4 fingers). Last, punch again in the air and say “frog”.

• Alien Scavenger hunt
http://www.earobics.com/gamegoo/games/alien/ashlo.html

Activities Menu
Phoneme Deletion Activities

- **Detecting the initial sound:** Have your child listen as you say a word. Then, ask the child to repeat the word. Next, have the child say the word without the beginning sound. For example, say "lime". Now say "lime" without the /l/ (ime). Say "fish". Now say "fish" without the /f/ (ish). Some of the remaining sounds can be real or made-up words. Remember to say the sounds and not the letters. Play this game many times, until the child is comfortable with dropping the beginning sounds. As the child becomes more proficient, proceed to more challenging words. Click here for a sample word list.

- **Detecting Final Sounds:** Next ask the students to drop the ending sounds. For example, say "sleep". Now say "sleep" without the p (slee). Click here for a sample word list.
Word list for Phoneme Deletion

Initial sound deletion
Some examples:
- cake without the /c/ “ake”
- meet without the /m/ “eat”
- song without the /s/ “ong”
- ball without the /b/ “all”
- but without the /b/ “ut”
- list without the /l/ “ist”
- shin without the /sh/ “in”
- shrub without the /sh/ “rub”
- thread without the /th/ “red”
- mask without the /m/ “ask”

Word list provided from:
http://www.uth.tmc.edu/uth_orgs/cars/development/tpri/intvact/phon.htm
Word List for Phoneme Deletion

Final sound deletion

Some examples:

- meat without the /t/ “me”
- rake without the /k/ “ray”
- card without the /d/ “car”
- time without the /m/ “tie”
- felt without the /t/ “fell”
- bike without the /k/ “by”
- pave without the /v/ “pay”
- lake without the /k/ “lay”
- soak without the /k/ “so”

Word list provided from:
http://www.uth.tmc.edu/uth_orgs/cars/development/tpri/intvact/phon.htm
Phoneme Addition Activities

- Add additional letter (phoneme) to the given word to make a new word. Click here for a sample list.
## Phoneme Addition Word list

<table>
<thead>
<tr>
<th>Word</th>
<th>Add new sound</th>
<th>New word</th>
</tr>
</thead>
<tbody>
<tr>
<td>tar</td>
<td>/s/</td>
<td>star</td>
</tr>
<tr>
<td>rush</td>
<td>/b/</td>
<td>brush</td>
</tr>
<tr>
<td>rap</td>
<td>/t/</td>
<td>trap</td>
</tr>
<tr>
<td>trap</td>
<td>/s/</td>
<td>strap</td>
</tr>
<tr>
<td>pout</td>
<td>/s/</td>
<td>spout</td>
</tr>
<tr>
<td>log</td>
<td>/b/</td>
<td>blog</td>
</tr>
<tr>
<td>lop</td>
<td>/f/</td>
<td>flop</td>
</tr>
</tbody>
</table>

This activity can also be taught using nonsense words.
Phoneme Substitution Activities

- Change the onsets (beginning sounds) before the given rime to make a new word. [http://www.starfall.com/n/level-a/learn-to-read/load.htm](http://www.starfall.com/n/level-a/learn-to-read/load.htm)
- Sample list of onsets and rimes. Click [here](http://www.starfall.com/n/level-a/learn-to-read/load.htm).
**Phoneme Substitution Word list**

Keep changing the beginning sound to make a new word.

A sample of a few onset and rime combinations:

<table>
<thead>
<tr>
<th>Offset Sound</th>
<th>Rime</th>
<th>Offset Sound</th>
<th>Rime</th>
<th>Offset Sound</th>
<th>Rime</th>
<th>Offset Sound</th>
<th>Rime</th>
</tr>
</thead>
<tbody>
<tr>
<td>-at</td>
<td>-an</td>
<td>-en</td>
<td>-in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)at</td>
<td>(c)an</td>
<td>(B)en</td>
<td>(b)in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c)at</td>
<td>(D)an</td>
<td>(d)en</td>
<td>(f)in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(f)at</td>
<td>(f)an</td>
<td>(h)en</td>
<td>(p)in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(h)at</td>
<td>(J)an</td>
<td>(J)en</td>
<td>(s)in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(m)at</td>
<td>(m)an</td>
<td>(m)en</td>
<td>(t)in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(p)at</td>
<td>(p)an</td>
<td>(p)en</td>
<td>(w)in</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Glossary

- **Alliteration**: “The repetition of initial phoneme either across syllables or across words. For example, "Happy hippos hop on Harry" (Southwest Educational Development Laboratory [SEDL], 2000).

- **Alphabetic Principle**: “Understanding that spoken words are decomposed into phonemes, and that the letters in written words represent the phonemes in spoken words when spoken words are represented in text” (SEDL, 2000).

- **Essential Academic Learning Requirements (EALR)**: “These are student performance standards developed for Washington State students by the Washington State Commission on Student Learning which was established by the Legislature in 1992” (OSPI, 2004).
Glossary Continued

- **Grapheme**: “The symbols (letters) that represent sounds in written language” (SEDL, 2000).

- **Kinesthetic**: “A sense mediated by receptors located in muscles, tendons, and joints and stimulated by bodily movements and tensions; also: sensory experience derived from this sense” (Merriam-Webster Online, 2007).

- **Onset and rime**: “Parts of spoken language are syllables. An onset is the initial consonant(s) sound of a syllable (the onset of bag is b-; of swim is sw-). A rime is the part of the syllable that contains the vowel and all that follows it (the rime of bag is -ag; of swim, -im). Not all syllables or words have an onset, but they all have a rime (e.g., the word or syllable "out" is a rime without an onset)” (OSPI, 2004).
Glossary Continued

- **Phoneme**: “The smallest unit of sound in a spoken word that makes a difference in the word’s meaning” (OSPI, 2004).

- **Phoneme Identity**: The ability to recognize the same sounds in different words.

- **Phoneme Isolation**: The ability to recognize individual sounds in a word.

- **Phonemic Awareness**: “The knowledge that spoken words consist of a sequence of individual sounds, and the understanding that phonemes are rearranged and substituted to create new words. There are a finite set of phonemes which are arranged and rearranged to create an infinite set of spoken words” (SEDL, 2000).
Glossary Continued

- **Phonics**: “A form of instruction to cultivate the understanding and use of the alphabetic principle, that there is a predictable relationship between phonemes (the sounds in spoken language) and graphemes, the letters that represent those sounds in written language and that this information can be used to read or decode words” (Partnership for Reading, 2000).

- **Phonological Awareness**: “The understanding that speech is composed of sub-parts - sentences are comprised of words, words are comprised of syllables, syllables are comprised of onsets and rimes, and can be further broken down to phonemes” (SEDL, 2000).
References


http://www.earobics.com/gamegoo/games/alien/ashlo.html


References


http://www.readwritethink.org/materials/wordbuild/


http://teacher.scholastic.com/clifford1/index.htm

http://www.uth.tmc.edu/uth_orgs/cars/development/tpri/intvact/phon.htm
CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

Many children are at risk for reading failure due to a lack of development of phonological and phonemic awareness skills during their preschool years. They begin school at a disadvantage, and if these skills are not taught and learned by first grade some may never catch up to their fellow peers. Early intervention is necessary to prevent these children from having difficulties learning to read.

The purpose of this project was to develop a web page designed to inform parents about phonological and phonemic awareness. The web page includes activities and web sites for parents to use to teach and build phonological awareness skills in their child. Use of the web page before the kindergarten school year should be as an introduction to phonological and phonemic awareness, during the kindergarten year it should be used in conjunction with the classroom and guided by the teacher, and after the kindergarten year can be used to help maintain learned information about phonological and phonemic awareness.

Conclusions

This project was planned to be used as a reference tool by all parents and as a remedial tool for the students identified as needing intensive intervention. However, because the project is a web page and not all parents have access to the internet, it will not be utilized by all parents and students. The success of the web page is determined by the appropriate use of the information and activities by the students and parents in the author’s current classroom.
The web page clearly defines phonological and phonemic awareness. Definitions have been restated so anyone who is not an educator can easily understand the terminology. Each definition is also supported with a clear example and followed with links to various learning activities. Parents in the author's current class responded positively to the layout and content of the information from the web page.

**Recommendations**

This project is meant to be used in conjunction with other activities that naturally develop phonological and phonemic awareness some of which are reading with your child and conversing about the text, talking with your child through life experiences to develop strong oral language skills, and gaining familiarity with print by explaining how and why we use print in our lives.

The author recommends making hard copies of all the included information from the web page for parents who do not have access to the internet. By doing so, each student will be given equal opportunity for reading success.

The second recommendation is to have the information translated for ELL parents. The author did not have access to a translator. However, if the web page and/or information are to be used by all, it should be translated into the appropriate languages.

Finally, the author suggests providing one evening a week for parents to come to school in order to access the web page from the school computer lab. That way, the parents would be able to accurately use and learn without the inconvenience of learning through a packet of papers.
REFERENCES


www.nifl.gov/partnershipforreading/publications/PFRbooklet.pdf


www.nifl.gov/partnershipforreading/glossary/glossary.html


