

Note #2 to Teachers Teaching Kindergarten Children in Reading Mastery

[Charles Arthur](#)

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The last Note was on the subject of decoding, at its very beginning. This Note is on phonemic awareness.

So what is phonemic awareness? How is it taught in Reading Mastery K? For that matter, is it taught at all in RM-K? There is no mention of the term in the manual or teacher presentation. The term, phonemic awareness, was not used in the first three editions of Direct Instruction Reading, the textbook for Reading Mastery. It was finally used, with some explanation, in 2004, in the fourth of five editions. (First edition, 1979)

In spite of this, even without the term, Reading Mastery K is loaded with teaching of phonemic awareness and always has been since its beginning in 1969.

A few samples from the [first 40 lessons](#):

- When you have a child say the sound for a letter in isolation or in a random collection of letters.
- When a child listens to you say a word slowly and stretched out and then says it fast.
- When the child says a word slowly and stretched out, “say the sounds in the word”, and then says it fast.
- When a child rhymes with a beginning sound, without letters or with letters.
- When a child sounds out a word in print, without stopping, and says it fast.
- Whenever a child reads or performs an exercise out loud.

These samples are teaching phonemic awareness. How do we know? Why are they important. How has science enhanced their importance?

My first question is: If they teach phonemic awareness, why wait until 2004 before using the term? The answer is simple. Scientists didn’t begin to study the subject until after Engelmann had published the program in 1969. Even after that, the term took time to be widely studied and used by scientists. It finally became formally recognized in the National Reading Panel Report of 2000. So after thirty years the writers of the textbook changed its terminology from “auditory skills” to phonemic awareness. (Carnine, Silbert, et al. 1979,2004,2010)

The term phonemic awareness eventually became a big idea in the field of beginning reading. Technically, the term, phonemic awareness is now defined as the identification and manipulation of sounds in speech. There are 43 in English. In other words, to combine the old with the new: phonemic awareness is about using auditory skills to identify and manipulate sounds in speech. In addition to their primary instructional purpose, all of the above examples help a child identify, hear, and manipulate with their voices individual speech sounds called phonemes.

Take note. This definition says nothing about the importance of this knowledge and skill for learning how to decode. However, the teaching of phonemic awareness is based on the proposition that as the young reader becomes more aware of and knowledgeable of these sounds and their use (manipulation), they will be more able to learn to decode words and learn to read. This proposition became confirmed by scientists well after it had been used in Reading Mastery K.

In time, it became clear, by the scientists, that, because of the alphabet, decoding words requires much more awareness of speech sounds than ordinary speech. Speech requires very little awareness. The brain takes care of that. Teaching phonemic awareness increases a child's awareness and skills with speech sounds that assist in learning decoding. When this causal relationship between phonemic awareness and learning to decode was confirmed by science, the term was adopted by Engelmann and his team. (Engelmann, 1999)

By increasing phonemic awareness, our children are learning the oral side of reading. They will be learning 40 speech sounds, or phonemes (p.2-3) by end of the year. Most of the time the sounds are learned in connection to letters. Some of the time they may be used as an oral-only pre-reading rehearsal for sounding out a word. (See the October Note) The above samples accomplish all of these objectives.

The whole idea is to tune up their ears so they take note of those small sounds, called phonemes, that mostly go unnoticed in early speech, before learning to read. For reading, phonemes need to be noticed, heard, learned, orally manipulated and finally matched to letters. All of reading requires this knowledge, but, most importantly, it is required for getting it started. It's the hidden skills that sustain reading right up through, and including, fluency.

Some Background

The general term of phonemic awareness came about as a result of the large amount of scientific study done in this area of reading since the early 70s. The early scientists studied this area of reading differently than Engelmann had studied it in the 60s. Engelmann's motivation was to solve a teaching problem, a problem that children had with decoding. (Described in the October Note) Scientists could see the practical problem with decoding as the place where most children have trouble, but they didn't find the easy practical solution through teaching, like Engelmann. Instead, they studied the problem in a laboratory setting. Eventually, over many years, they developed an improved, but different and harder way of teaching phonemic awareness for beginning reading than what was developed by Engelmann. (Ehri, L., 2000, 2004)

In their initial studies of phonemic awareness, they started by asking children to simply identify the sounds in speech by using an easy technique, tap sticks every time they thought they heard a different sound in one syllable words.

It was found that the youngest children could hardly identify any sounds correctly, just by tapping sticks. The older the children, the better they were at it. [There are good reasons for why phonemes in speech are so elusive](#). Of course, the scientists wanted to know how this variation in skill related to learning to read. Phonemic awareness in speech is not nearly as important, even required, as in reading. (Lieberman, 1973 p.5)

After about twenty years and lots of studies, it became confirmed that variations in abilities to hear and manipulate phonemes, beyond tapping, were the most probable indicators, but not a 100%, of how well children will learn to read. (Stanovich, 1991, 1994)

This implies that this ability with phonemes is partially inherited. This meant that children testing low would probably have some degree of difficulty learning to read. It also may mean that our children having some difficulty with the auditory skills of Reading Mastery in the early lessons may predict future difficulty in learning to read. Only maybe. Read on.

The tasks used by scientist to tests variance in children were harder than the tapping test. For example: “say the sounds you hear in the word, run.”(with pauses), or “tell me what word is /r/ /u/ /n/ “. “Say the sound that you hear at the beginning of the word SAT.” Only a very few in kindergarten or early first grade, without prior training, are successful at the start of the year with these tasks. That is why the harder tasks are not appropriate for teaching beginning reading. This was not recognized by the scientists. We do teach, in a careful sequence, skills like this in the Connections Program, along side of Reading Mastery K for added practice but not to lead up to teaching decoding.

Most of the harder tasks for testing involved breaking the phonemes in words into segments and blending dictated phonemic segments into words. We don’t teach the harder way to say the sounds in words until we introduce spelling. Phonemes as segments are much harder to learn than “say the sounds without stopping,” like Engelmann had used.

Once the tasks for tests were developed, the next step was to demonstrate that weak inherited levels of phonemic awareness can be improved through instruction. Many training studies were conducted to demonstrate this proposition. This means that children who inherit low levels don’t need to live with this low level ability forever. (Read, dyslexia) Their chances of improving phonemic awareness and, in turn, learning to read can be increased with instruction and training (Adams, 1990,p.11, 1994, 1998 p.16). Those children who start our lessons with difficulties can get better. Their weakness in phonemic awareness can improve through instruction. We now have the physical evidence from brain imaging studies

that show actual increase in brain activity as a result of instruction with phonemic awareness. This was a great discovery and confirmation of the importance of phonemic awareness.

Training studies developed several different exercises for pre-reading training before formal instruction. They were reported in the NRP report. However, they were based on a print model rather than a speech model, so, they also were hard to learn and therefore, took more time to teach. The other large problem was that the tasks lacked follow-through. Their application to decoding wasn't clear. The assumption is that they "might" help in teaching decoding. When they were applied to decoding, it was done with pauses, a harder way to begin teaching decoding. **Thus, with these methods, plus the time they take, the chance of learning to read only partially has been improved. They needed Engelmann's solutions.**

However, there is an important twist, here. Phonemic awareness is both a cause and an effect of learning to read. It causes the increase in learning and increased learning causes improvement in phonemic awareness. It works in both directions.

Phonemic awareness and the alphabet work in both directions, reciprocally. An increase in phonemic awareness helps learning to read an alphabetic language, and reading an alphabetic language helps increase phonemic awareness. (Rayner et al. 2001)

This is important to know for planning beginning reading. Not all increase in phonemic awareness is due to pre-reading exercises. Decoding words and reading play an important role in this increase as well, from the reverse direction. Every time a child is asked to sound out a printed word or orally read a selection, s/he is expanding knowledge and strengthening abilities in phonemic awareness.

The science gave added importance to Engelmann's prior innovations.

Over time, Engelmann's concept of auditory skills became understood more than an improved way of teaching decoding. It coincidentally became understood as a way to enhance a child's ability to hear and identify phonemes. "Say the sounds without stopping" went from an innovative set of pre-lessons for decoding to an innovative way of teaching phonemic awareness, as well, - an added bonus. Whenever a child "says the sounds without stopping" with or without letters, s/he is strengthening their knowledge of and ability with phonemes in speech. Thus phonemic awareness also assists in decoding in that it assists in making letter/sound matching. **Given the hidden nature of phonemes in spoken language and their increased requirement for reading p.16, this is a valuable asset gained from this small practice taught during the first 40 lessons.**

The Teacher's Guide points out the importance of this part of teaching.

***"The activities presented in this part of the program are possibly the most important in the entire program. If children master these activities, they typically have little trouble with the next instructional steps. However, if children are not taught these important preceding skills, they will probably have serious trouble throughout the program."* p.1**

See: [arthurreadingworkshop](#)

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