Science of Reading Demystifying Phonological Awareness Research

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Phonological awareness (PA) is the ability to focus on and manipulate component parts in spoken words. This includes syllables, onset-rime, and phonemes (i.e., single sound units). PA—specifically phonemic awareness, which focuses on phonemes—is important because English writing is alphabetic and spoken language is fluid (National Reading Panel, 2000).

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Students have no inherent reason to think about where one phoneme ends and another begins— in speech, it is natural to listen for units of meaning, not units of sound (Moats & Tolman, 2019; Willingham, 2017). Learning to separate, blend, and manipulate phonemes teaches students that words are composed of individual sounds (Muter et al., 1998). This way, when students learn sound-spellings (i.e., letters and the sounds they make) and begin decoding words (i.e., reading), they can more easily connect the letters to each phoneme or sound (Hulme et al., 2002; Nation & Hulme, 1997).

What is research-backed effective PA instruction?

A PA scope and sequence should begin with large units of sound and quickly progress to phonemes, the smallest units of sound in words. More specifically, this means beginning with rhyming tasks and alliteration, followed by syllable work, onset-rime (b- ack, e.g.), then phonemes (Land & Pullen, 2003). The types of tasks also follow a hierarchy from simplest to most difficult, beginning with isolation, identification, blending, segmenting, then more complex manipulation tasks like addition and deletion (Lane & Pullen, 2003). The most effective PA tasks for reading development are phoneme-level tasks, particularly blending, segmenting, and manipulation tasks (Brady, 2020; Lane & Pullen, 2003)

According to research, PA should be taught orally, without letters, in most cases. This allows students to focus on the least intuitive part of the skill (i.e., the sound) without the distraction of print (Mesmer & Kambach, 2022). Additionally, if a student struggles with a PA skill while using letters, it can be difficult for a teacher to assess whether the problem is due to misunderstanding the PA skill or a print skill (Kilpatrick, 2015). For example, it can be hard to tell whether a student confuses the sound between *pet* and *pit* or whether they are confusing *e* and *i* (Mesmer & Kambach, 2022).

PA instruction should be explicit, with the teacher demonstrating the skill and modeling it with an exemplar word. Teachers and students should practice together, and then students should practice together with teacher supervision and corrective feedback. Instruction should be quick and frequent: five minutes of daily instruction is enough in most cases (National Reading Panel, 2000).

Research shows that print can be a useful support for PA during interventions and should be considered as a reteach method for struggling students or for older students who need more intensive support for reading (National Reading Panel, 2000). Research has also shown that multi-modal instruction supported with hand signals, tokens, and other variations in small groups can be effective for learning, especially for differentiation (Ehri & Roberts, 2006; Foorman & Torgesen, 2001; Honig et al., 2018).

Connecting PA to Phonics

PA instruction, while oral and taught without letters, can be connected to phonics instruction in two ways:

- 1. PA can immediately precede phonics instruction
- 2. PA lessons can include words with a phonics skill taught in the same lesson.

In this way, students hear, identify, and manipulate the phonemes in words immediately before they learn or review the correspondent letters or letter combinations, which helps students connect phonemes to letters (Wagner & Torgesen, 1987).

Furthermore, aligning the words used in PA instruction with a phonics skill gives students a stronger understanding of how to decode than using unrelated words in PA and phonics instruction (Muter et al., 1998). For example, in a phonics lesson on consonant digraphs, including *sh*- and *th*-, PA exercises may include words like *shade*, *sheep*, *think*, and *there*. By isolating and manipulating the phonemes */sh/* and */th/* immediately before learning *sh* and *th*, students more easily connect those letter combinations to the single sound at the beginning of a word.

By tying PA instruction to phonics in brief daily doses, students get the additional benefit of practicing the complete range of phonological awareness skills while applying them to hundreds of different combinations. This practice prepares students for phonics instruction and will improve their success in learning to decode and read fluently.

Works Cited

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