

Phonological and Phonemic Awareness: How Do We Bridge Research to Practice?

Categories: Expert Voices, Science of Reading, Reading



Dr. Valentina Contesse

*In our third installment of the blog series **Structured Literacy: Unpacking Nine Key Topics for Transforming Reading Instruction and Outcomes for Readers**, we're delighted to feature guest author Dr. Valentina Contesse of the University of Florida Literacy Institute (UFLI).*

To catch up on earlier blog posts in the series, start with the introduction, "From Guided Reading to a Structured-Literacy Approach: My Journey as an Educator."

Although I learned about *phonological awareness* and *phonemic awareness* during my teacher preparation program, I didn't truly put this knowledge into practice until I began my career as a special education teacher in the primary grades. I didn't fully understand the connection between phonological and phonemic awareness skills and students' reading development.

Now, as a teacher educator, I work to help preservice and practicing teachers feel prepared to apply research in this area in effective classroom practices. Understanding the research and putting it into practice is really hard work. Many of us continue to grapple with how to actualize what the science of reading shows are best practices for students.

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So, with that in mind, let's start at the beginning.

First, let's get clarity about the terms we're using. Sometimes *phonological awareness* and *phonemic awareness* are spoken about in ways that might lead us to infer that they are interchangeable—but they are not.

What Is Phonological Awareness?

Phonological awareness is the awareness of or sensitivity to the sound structure of language. Phonological awareness is an umbrella term used to describe awareness at different levels of spoken language (Lane et al., 2002).

Phonological awareness includes activities at different units or levels of language, including the word level, syllable level, intrasyllabic level (e.g., onset-rime), and—most critically for this discussion—the phoneme level.

What Is Phonemic Awareness?

Phonemic awareness is the capacity to attend to and manipulate phonemes. Phonemes are the smallest units of speech that make a difference in the meaning of a word. For example:

The word ‘cat’ has three phonemes, /k/ /ă/ /t/.

The word ‘fish’ has three phonemes, /f/ /ī/ /sh/.

The word ‘sheep’ has three phonemes, /sh/ /ē/ /p/.

Phonemic awareness is the most sophisticated and most important level of phonological awareness.

Why Is Phonemic Awareness So Important?

Children typically develop awareness of larger sound units (words, syllables, intrasyllabic units) before they start attending to phonemes, but instruction focusing on these larger units should *not* be thought of as a prerequisite for instructional activities that support children’s phonemic awareness (Brady, 2020). There’s not really any evidence that working on syllables or onsets and rimes helps children read better. It’s phonemic awareness that supports word reading skills.

Research has confirmed this. The National Reading Panel (NRP, 2000) examined the impact of phonemic awareness instruction. The meta-analysis conducted by the NRP, which included 52 research studies, identified that phonemic awareness instruction, under various teaching conditions, supported children’s decoding (reading) and encoding (spelling) development.

The most important phonological skills are blending and segmenting at the phoneme level (NRP, 2000). These phoneme level skills contribute directly to decoding and encoding. As the research indicates, primary grade teachers should target phonemic awareness skills during instruction (Gillon, 2018).

Phonemic Awareness Alone Isn’t Enough: We Need Explicit Phonics Instruction, Too!

A popular saying in teacher workshops is that “phonemic awareness activities can be done in the dark.” We need to remember that just because we *can* do something doesn’t mean we *should*!

This saying probably came about as a way to help educators understand the concept of phonemic awareness (i.e., the processing of sounds). But, somewhere along the line, it turned into the idea that adding letters was somehow wrong.

It’s true that adding letters makes it phonics instruction, but that doesn’t mean it isn’t still *also* phonemic awareness instruction. In fact, with letters, it’s *better* phonemic awareness instruction!

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It's also important to acknowledge that oral phonemic awareness instructional activities alone are not sufficient for helping students understand the alphabetic principle, or the understanding that graphemes (letters or letter combinations) and phonemes work together in systematic ways to form words. Instruction targeting foundational reading skills should include both phonemic awareness and explicit phonics instruction (NRP, 2000).

Explicit phonics instruction includes instruction that is direct, precise, and unambiguous and is built on the foundation that phonemic awareness provides. The NRP report also supports explicitly teaching children how to apply phonemic awareness skills in decoding and encoding tasks. In fact, NRP findings indicate that phonemic awareness instruction is *most* effective when children are taught to manipulate phonemes with letters. You can do this through activities with Elkonin boxes or manipulative letters or tiles.

Phonemic Awareness – Essentials for Instruction

Now that we've established the importance and relevance of phonemic awareness instruction, let's consider the instructional routines that support acquisition of this essential set of skills.

While this list is just a sample of instructional strategies, the listed aspects are essential for student growth.

The Importance of Correct Pronunciation of Sounds

It is important for teachers to model correct pronunciation of sounds during instruction. If students do not pronounce sounds correctly (e.g., pronouncing /b/ with a schwa, as /buh/), this impacts their ability to accurately blend these sounds to form words.

Students also benefit from learning about articulatory gestures, or *how* sounds are produced (Boyer & Ehri, 2011). Helping students attend to how sounds are produced supports their phonemic awareness and knowledge of grapheme-phoneme correspondences.

This University of Florida Literacy Institute video provides a quick review of how to pronounce sounds while teaching reading.

Phoneme Blending

Phoneme blending activities require students to put phonemes together to form words. Instructional activities targeting blending at the phoneme level support decoding. When students decode a word, they must blend the sounds together.

Teacher: /sh/ /ē/ /p/

Students: 'sheep'

A practice called "connected phonation" can make blending activities more effective (Gonzalez-Frey & Ehri, 2020). Connected phonation means holding out sounds to make blending easier. Instead of modeling /m+/ă+/p/, try holding out the sounds to model /mmmăăăp/. This topic will be further discussed in the next blog post in this series.

Phoneme Segmenting

Phoneme segmentation activities require students to break apart the individual phonemes in a word. Instructional activities targeting segmenting at the phoneme level support encoding. When students encode a word, they must break apart the word to hear each individual sound and then match each sound with the corresponding grapheme.

Teacher: 'sheep'

Students: /sh/ /ē/ /p/

Conclusion: Bridging the Research-to-Practice Gap

Research helps identify effective classroom practices, however, knowledge gained from research is purposeless if it isn't used by those most able to directly impact student outcomes—educators! Understanding the research and how phonemic awareness and phonics instruction are inextricably linked would have been so helpful to me as a teacher and of course, to my students.

I'm grateful that the conversation about the science of reading and how that science impacts student learning is so robust right now. We are all working so hard to improve our instructional practices to ensure that the robust research base makes its way into our classrooms.

To learn more about this blog series, *Structured Literacy: Unpacking Nine Key Topics for Transforming Reading Instruction and Outcomes for Readers*, read the introduction.

References

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About the Author



Dr. Valentina Contesse

Dr. Valentina Contesse is a clinical assistant professor of special education in the School of Special Education, School Psychology, and Early Childhood Studies at the University of Florida. She works for the University of Florida Literacy Institute (UFLI) and helped develop the UFLI Virtual Teaching Resource Hub. Dr. Contesse supports the coordination of professional development for preservice and practicing teachers focused on evidence-based reading instruction and provides school-based implementation support.

Dr. Contesse began her teaching career after earning her undergraduate degree in elementary education and graduate degree in special education. She has previous elementary teaching experience as both a special education and general education teacher in inclusive K-4 classrooms.

Her research interests include early literacy intervention, implementation of evidence-based instructional practices, teacher preparation in reading, and the effects of performance feedback on teacher practices. Through continued research and teacher training efforts, Dr. Contesse hopes to build stronger connections between research and practice, to ultimately help improve academic and social outcomes for all students. Follow her on Twitter at @ValContesse.