Phonemic Awareness

"One of the most compelling and well-established findings in the research on beginning reading is the important relationship between phonemic awareness and reading acquisition." (Kame'enui, et. al., 1997; see References)

Focus Questions for Phonemic Awareness:

- What is phonemic awareness?
- What does the research say about phonemic awareness?
- Why is phonemic awareness important?
- What should I know about phonemic awareness?
- How do I teach phonemic awareness?
- When should I teach phonemic awareness?
- How should I sequence phonemic awareness skills?
- What should I look for in phonemic awareness materials?
- What skills should I expect students to demonstrate at specific grade levels?
- How do I know if students are learning enough?
- What effective, research-based programs can I use?

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Phonemic Awareness (PA) is:

1. the ability to hear and manipulate the sounds in spoken words and the understanding that spoken words and syllables are made up of sequences of speech sounds (Yopp, 1992; see References).
2. essential to learning to read in an alphabetic writing system, because letters represent sounds or phonemes. Without phonemic awareness, phonics makes little sense.
3. fundamental to mapping speech to print. If a child cannot hear that "man" and "moon" begin with the same sound or cannot blend the sounds /rrrruuuuunnnnn/ into the word "run", he or she may have great difficulty connecting sounds with their written symbols or blending sounds to make a word.
4. essential to learning to read in an alphabetic writing system
5. a strong predictor of children who experience early reading success.

"The best predictor of reading difficulty in kindergarten or first grade is the inability to segment words and syllables into constituent sound units (phonemic awareness)" (Lyon, 1995; see References).

What is a Phoneme?

Phonemes are the smallest units composing spoken language. (National Reading Panel, 2000)

Sun has 3 phonemes: s....u....n

Different Linguistic Units: Large to Small

Sentences: The sun shone brightly.  
Word: sun  
Syllables: sun, sun-shine, sun-ny  
Onset-rime: s-un, s-unshine, s-unny  
Phoneme: s-u-n, s-u-n-sh-i-ne; s-u-nn-y

Definitions:

- **Phoneme**: A phoneme is a speech sound. It is the smallest unit of language and has no inherent meaning.
- **Phonemic Awareness**: The ability to hear and manipulate the sounds in spoken words, and the understanding that spoken words and syllables are made up of sequences of speech sounds (Yopp, 1992; see References). Phonemic awareness involves hearing language at the phoneme level.
- **Phonics**: use of the code (sound-symbol relationships to recognize
words.

- **Phonological Awareness:** The ability to hear and manipulate the sound structure of language. This is an encompassing term that involves working with the sounds of language at the word, syllable, and phoneme level.
- **Continuous Sound:** A sound that can be prolonged (stretched out) without distortion (e.g., r, s, a, m).
- **Onset-Rime:** The onset is the part of the word before the vowel; not all words have onsets. The rime is the part of the word including the vowel and what follows it.
- **Segmentation:** The separation of words into phonemes.

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**Links:**

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What Does the Research Say About Phonemic Awareness?

**Big Ideas**

- Phonemic Awareness
- Alphabetic Principle
- Fluency with Text
- Vocabulary
- Comprehension

**The Report of the National Reading Panel (see References)**

- Purpose: To conduct an evidence-based assessment of the scientific research on reading.
- 14 member panel of researchers
- Commissioned by U.S. Congress (1997)
- Extends National Research Council on Preventing Reading Difficulties
- Click here to link to the report.

**Topics of Focus**

- Does phonemic awareness instruction improve reading?
  - YES, YES, YES!
  - Phonemic awareness is absolutely important.
  - It is best taught in Kindergarten and First Grade.
  - Children need to be taught to listen to the sounds of language because what we say is not what children see in print.
  - Teaching children to manipulate phonemes in words is highly effective under a variety of teaching conditions with a variety of learners across a range of grade and age levels.
Why is Phonemic Awareness Important?

Phonemic Awareness (PA) is important because:

- It requires readers to notice how letters represent sounds. It primes readers for print.
- It gives readers a way to approach sounding out and reading new words.
- It helps readers understand the alphabetic principle (that the letters in words are systematically represented by sounds).

Phonemic Awareness (PA) is difficult because:

- Although there are 26 letters in the English language, there are approximately 40 phonemes, or sound units, in the English language. (NOTE: the number of phonemes varies across sources.)
- Sounds are represented in 250 different spellings (e.g., /f/ as in ph, f, gh, ff).
- The sound units (phonemes) are not inherently obvious and must be taught. The sounds that make up words are “coarticulated;” that is, they are not distinctly separate from each other.

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What Should I Know About Phonemic Awareness?

Phonemic Awareness Objectives
(modified from Moats, 1999; see References)

What You Should Know:

- Definition of phonemic awareness (PA).
- The relation of phonemic awareness to early reading skills.
- The developmental continuum of phonemic awareness skills.
- Which phonemic awareness skills are more important and when they should be taught.
- Features of phonemes and tasks that influence task difficulty.
- Terminology (phoneme, PA, continuous sound, onset-rime, segmentation).

What You Should Be Able to Do:

- Assess PA and diagnose difficulties.
- Produce speech sounds accurately.
- Use a developmental continuum to select/design PA instruction.
- Select examples according to complexity of skills, phonemes, word types, and learner experience.
- Model and deliver PA lessons.
- Link PA to reading and spelling.
- Evaluate the design of instructional materials.

What Does the Lack of Phonemic Awareness Look Like?

Children lacking phonemic awareness skills cannot:

1. group words with similar and dissimilar sounds (mat, mug, sun)
2. blend and split syllables (foot)
3. blend sounds into words (m_a_n)
4. segment a word as a sequence of sounds (e.g., fish is made up of three phonemes, /f/, /i/, /sh/)
5. detect and manipulate sounds within words (change r in run to s).
Phonemic Awareness is a critical component of reading instruction but not an entire reading program. It absolutely needs to be taught, but should only be 10-15 minutes per day of your reading instruction.

2. If you focus on just a few types of phonemic awareness, you get better results. There are a lot of skills in phonemic awareness, but research has found that blending and segmentation are the 2 critical skills that must be taught. Instruction must focus on blending and segmenting words at the phoneme, or sound level. This is an auditory task.

3. Research has found that you get better results when teaching phonemic awareness to small groups of children rather than an entire class.

4. Phonemic awareness needs to be taught explicitly. The instructional program must show children what they are expected to do. Teachers must model skills they want children to perform before the children are asked to demonstrate the skill.

5. Teachers increase effectiveness when the manipulation of letters is added to phonemic awareness tasks. Phonemic awareness is an auditory skill, but once children start to become familiar with the concept, teachers can introduce letter tiles or squares and manipulate them to form sounds and words.

Visit our BIG IDEA: Phonemic Awareness pages for a review of the Phonemic Awareness.
Sound Isolation Example Instruction

Use Conspicuous Strategies

1. Show children how to do all the steps in the task before asking children to do the task.

   Example:
   (Put down 2 pictures that begin with different sounds and say the names of the pictures.) "My turn to say the first sound in man, /mmm/. Mmman begins with /mmm/.
   Everyone, say the first sound in man, /mmm/.

   Non-example:
   "Who can tell me the first sounds in these pictures?"

2. Use consistent and brief wording.

   Example:
   "The first sound in Mmman is /mmm/. Everyone say the first sound in man, /mmm/.

   Non-example:
   "Man starts with the same sound as the first sounds in mountain, mop, and Miranda. Does anyone know other words that begin with the same sound as man?"

3. Correct errors by telling the answer and having children repeat the correct answer.

   Example:
   "The first sound in Man is /mmm/. Say the first sound in mmman with me, /mmm/. / Mmmm/.

   Non-example:
   Asking the question again or asking more questions. "Look at the picture again. What is the first sound?"

Video Clip Library:

The following is a list of instructional pages which contain video clips related to this topic. Click on a title to link to the instructional page. The instructional page gives information about the skills demonstrated in the video clip, skills taught prior to the clip, things to look for that the teacher and students do, and the next instructional objectives for the group. To watch the video clips, click on the green Video Clip button found in the center of the instructional page.

First Sound Identification

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Blending Example Instruction

Scaffold Task Difficulty

1. When children are first learning to blend, use examples with continuous sounds, because the sounds can be stretched and held.

   Example:
   "Listen, my lion puppet likes to talk in a broken way. When he says /mmm/ - /ooo/ - /mmm/ he means mom."

   Non-example:
   "Listen, my lion puppet likes to talk in a broken way. When he says /b/ - /e/ - /d/ he means bed."

2. When children are first learning the task, use short words in teaching and practice examples. Use pictures when possible.

   Example:
   Put down 3 pictures of CVC words and say: "My lion puppet wants one of these pictures. Listen to hear which picture he wants, /sss/ - /uuu/ - /nnn/. Which picture?"

   Non-example:
   ".../p/ - /e/ - /n/ - /c/ - /i/ - /l/. Which picture?" (This is a more advanced model that should be used later.)

3. When children are first learning the task, use materials that reduce memory load and to represent sounds.

   Examples:
   Use pictures to help children remember the words and to focus their attention. Use a 3-square strip or blocks to represent sounds in a word.

   Non-example:
   Provide only verbal activities.

4. As children become successful during initial learning, remove scaffolds by using progressively more difficult examples. As children become successful with more difficult examples, use fewer scaffolds, such as pictures.

   Example:
   Move from syllable or onset-rime blending to blending with all sounds in a word (phoneme blending). Remove scaffolds, such as pictures.
“Listen, /s/ - /t/ - /o/ - /p/. Which picture?”
“Listen, /s/ - /t/ - /o/ - /p/. What word?”

Non-example:
Provide instruction and practice at only the easiest levels with all the scaffolds.

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Phonemic Segmentation Example Instruction

Strategically Integrate Familiar and New Information

1. Recycle instructional and practice examples used for blending. Blending and segmenting are sides of the same coin. The only difference is whether children hear or produce a segmented word. Note: A segmenting response is more difficult for children to reproduce than a blending response.

   Example:
   "Listen, my lion puppet likes to say the sounds in words. The sounds in mom are /mmm/ - /ooo/ - /mmm/. Say the sounds in mom with us."

2. Concurrently teach letter-sound correspondences for the sounds children will be segmenting in words.

   Example:
   Letter sound /s/ and words sun and sit. Put down letter cards for familiar letter-sounds. Then, have children place pictures by the letter that begins with the same sound as the picture.

   Non-example:
   Use letter-sounds that have not been taught when teaching first sound in pictures for phoneme isolation activities.

3. Make the connections between sounds in words and sounds of letters.

   Example: After children can segment the first sound, have them use letter tiles to represent the sounds.

   Non-example: Letters in mastered phonologic activities are not used. Explicit connections between alphabetic and phonologic activities are not made.

4. Use phonologic skills to teach more advanced reading skills, such as blending letter-sounds to read words.

   Example:
   (Give children a 3-square strip and the letter tiles for s, u, n.) Have children do familiar tasks and blending to teach stretched blending with letters.

Video Clip Library:
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**Phonemic Segmentation**

**Extensions of Segmenting**

By the end of grades 1 and 2, students should be able to demonstrate the following skills:

1. **Substituting**
   
   Example: "Nap. What word do we get when we change the '/n/' to '/c/'?" (as in rhyming or word family practice).

2. **Deleting**

   Example: "Flake. What word do we get when we take away '/l/' from flake?"

3. **Adding**

   Example: "Mile. What word do we get when we add '/s/' to the front of mile?'"

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What Phonological Awareness benchmarks should my students be reaching?

Kindergarten

Students Should Demonstrate These Skills at the End of Kindergarten:

1. **Sound and Word Discrimination**
   - Tells whether words or sounds are the same or different (cat/cat = same; cat/car = different).
   - Identifies which word is different (e.g., sun, fun, sun).
   - Tells the difference between single speech sounds (e.g., Which one is different? s, s, k).

2. **Rhyming**
   - Identifies whether words rhyme (e.g., cat/mat; ring/sing).
   - Produces a word that rhymes with another (e.g., "A word that rhymes with rose is nose. Tell me another word that rhymes with rose.")

3. **Blending**
   - Orally blends syllables (mon-key) or onset-rimes (m-ilk) into a whole word.
   - Orally blends 2-3 separately spoken phonemes into one-syllable words (e.g., m-e: me; u-p: up; f-u-n: fun).

4. **Segmentation**
   - Claps or counts the words in a 3-5 word sentence (e.g., Sue can jump far).
   - Claps or counts the syllables in 1-, 2-, and 3-syllable words.
   - Says each syllable in 2- and 3-syllable words (di-no-saur).
   - Identifies the first sound in a one-syllable word (e.g., /m/ in man).
   - Segments individual sounds in 2- and 3-phoneme, one-syllable words (e.g., run: /r/ /u/ /n/; feet: /f/ /ee/ /t/).

Phonological Awareness Goals:

Benchmarks for kindergarten:

- 25 first sounds per minute by midyear
- 35 sound segments per minute by the end of kindergarten.

First Grade

Students Should Demonstrate These Skills by the Middle of First Grade:

1. **Sound Isolation**
2. **Sound Blending**
   - Blends 3-4 phonemes into a whole word (e.g., /m/ /a/ /n/: man; /s/ /k/ /i/ /p/: skip).

3. **Sound Segmentation**
   - Segments 3- and 4-phoneme, one-syllable words (e.g., m-a-n; s-k-i-p).

**Phonological Awareness Goals:**

Benchmarks for first grade:

- 35-45 first sounds per minute by midyear

Visit our **BIG IDEA: Phonemic Awareness** pages for a review of the Phonemic Awareness.

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### Mapping of Instruction to Achieve Instructional Priorities
#### Kindergarten

**Instructional Priority:** Phonemic Awareness

<table>
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<th>6</th>
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<th>9</th>
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<tbody>
<tr>
<td>1a: Tells whether words and sounds are the same or different</td>
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<td>1b: Identifies which word is different</td>
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<td>1c: Identifies different speech sound</td>
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**Focus 2: Rhyming**

| 2a: Identifies whether words rhyme | X |
| 2b: Produces a word that rhymes | X | X |

**Focus 3: Blending**

| 3a: Orally blends syllables or onset-rimes | X | X |
| 3b: Orally blends separate phonemes | X | X | X |

**Focus 4: Segmentation**

| 4a: Claps words in sentences | X |
| 4b: Claps syllables in words | X | X |
| 4c: Says syllables | X | X |
| *4d: Identifies first sound in 1-syllable words | X | X | 25 |
| *4e: Segments individual sounds in words | X | X | X | 35 |

* High priority skill
  a. Sounds per minute
  b. Optimal time for rhyme instruction not established

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### Mapping of Instruction to Achieve Instructional Priorities

**First Grade**

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<thead>
<tr>
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<td>1a: Identifies initial sound in 1-syllable words</td>
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<td>1b: Identifies final sound in 1-syllable words</td>
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<td>1c: Identifies medial sound in 1-syllable words</td>
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<td>2a: Blends 3-4 phonemes into a whole word</td>
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<td>3a: Segments 3- and 4-phoneme, 1-syllable words</td>
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* High priority skill
  a. Skills in this category should be established by mid-year.
  b. Number of phoneme segments per minute

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Strategic Integration of Beginning Reading

- **Phonemic Awareness**
  - Blending
  - Segmenting
- **Letter Sounds**
  - Letter Sounds
- **Word Reading**
  - Sounding Out → Sight Reading
- **Passage Reading**
  - Prompted → Sight Word
- **Irregular Word Reading**
- **Advanced Phonic Analysis**
  - Letter Combinations
  - VCe
  - Structural
  - Contextual
- **Advanced Passage Reading**
  - Decodable → Less Controlled
- **Fluency**
  - K → 3
- **Listening & Reading Comprehension**

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## Models of Reading Program Implementation

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<td><strong>B</strong> Specialized Programs</td>
<td><strong>C</strong> Time/Grouping Conditions</td>
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<td>• Systematic, synthetic, phonics-based programs</td>
<td>• Ladders to Literacy</td>
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<td>• Reading Mastery</td>
<td>• Phonological Awareness Training</td>
<td>• Supplement of 15-30 minutes prioritized reading instruction</td>
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<td>• Success for All</td>
<td>• Project Optimize (K)</td>
<td>• Small groups (3-5 students)</td>
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<td>• Open Court</td>
<td>• Road to the Code</td>
<td>• Highly trained and skilled teachers</td>
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<tr>
<td>• Other Basal Reading Programs</td>
<td>• Phonemic Awareness in Young Children</td>
<td>• Preteach or reteach difficult skills</td>
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<td>• Read Well</td>
<td>• 30-45 minutes small group teacher directed instruction</td>
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<td>• Reading Mastery</td>
<td>• Reading Mastery</td>
<td>• Supplement of 20-30 minutes prioritized reading instruction</td>
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<td>• Success for All</td>
<td>• Other code based programs</td>
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<td>• Other Basal Reading Programs</td>
<td>• Preteach/reteach specific priority skills</td>
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<td>• Reading Mastery</td>
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<td>• Repeated Reading Fluency Building</td>
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<td>• Peer-Assisted Learning Strategies</td>
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<td></td>
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<td>• Highly trained teachers with high quality implementation</td>
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