Stages of Reading: Comparison of Theories

<table>
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<tbody>
<tr>
<td></td>
<td>Number of Developmental Stages</td>
<td>5</td>
<td>3</td>
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<tr>
<td>Pre-reading</td>
<td>Stage 0: letters/book exposure</td>
<td>Logographic</td>
<td>Pre-alphabetic</td>
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<tr>
<td>Early Reading</td>
<td>memory and contextual guessing</td>
<td></td>
<td>Partial Alphabetic</td>
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<tr>
<td>Decoding</td>
<td>Stage 1: decoding, attending to letters/sounds</td>
<td>Alphabetic</td>
<td>Full Alphabetic</td>
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<tr>
<td>Fluent Reading</td>
<td>Stage 2: fluency, consolidation</td>
<td>Orthographic</td>
<td>Consolidated Alphabetic, Automaticity</td>
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</tbody>
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~Ehri 2005

Orthography

2 Greek combining forms

*orthos*

straight, correct

*graph*

written symbol
Orthography/Orthographic: Multiple Uses of Terms

❖ Correct spelling of written words
❖ Writing system for a particular language
❖ Conventional spelling patterns (spelling rules)
❖ Awareness of common patterns in words that are consistent across words, but may not have 1-1 correspondence for letters to sounds (-igh, -ough, -alk)

Orthographic Mapping: Definitions

The mental process we use to store words for immediate, effortless, retrieval. It requires phoneme proficiency and letter-sound proficiency, as well as the ability to unconsciously or consciously make connections between the oral sound in spoken words and the letters in written words. ~Kilpatrick, 2016.

The process by which children move from decoding alphabetically to reading via the fluent recognition of individual words. ~Castles, Nation 2006.

Visual Memory Task?

Do we recognize words because they are stored in visual memory?

Research Evidence:
How does orthographic mapping work?

Mental/oral “filing system”

❖ Allows us to access words that have been stored
❖ Words in this file must be meaningful
❖ Associate string of phonemes in word with letter order of word
❖ Words with meaningful relationship are anchored into permanent memory

The Brain and Orthographic Mapping

Occurs in the fusiform gyrus region

❖ Faces, places and shapes are stored on both left and right hemispheres
❖ Words are stored in left hemisphere only – also known as the Word Form area

Orthographic Stage of Reading

Advanced stage of reading development

❖ Development beyond the alphabetic stage
❖ Development of internal representations of words
❖ Recognition of words quickly and accurately
❖ Automatic
❖ Unconscious task

At any particular point in time a child may be reading some words slowly with reliance on the alphabetic decoding while reading other words effortlessly.

Predictors of Skills

❖ Alphabetic and Phonological Skills
❖ Orthographic Processing Skills
❖ Print Exposure
❖ Semantic Knowledge
All work together to allow immediate access to words.

**Skills Needed**

- Phonological Awareness
- Letter/Sound Skills
- Word Study

**Instruction**

Must include effective instruction in phonological awareness along with letter-sound correspondence.
How to Teach

❖ Incorporate reading materials appropriate to the level at which the student can phonologically and orthographically deal with words.
❖ Teach phonological awareness sequentially alongside letter/sound correspondence instruction.
❖ Teach word structure sequentially
❖ Incorporate “word families”, “look-alike” words and nonsense words into reading lists.
❖ Read aloud to students.

Word Families

❖ Words to read focus on *rime units*
❖ *Rime Unit* = part of the syllable containing the vowel and consonant/(s) following the vowel
❖ Only the first sound in each word changes
❖ Approach can be used with most syllable types
❖ Rime units should follow OG sequence

Developing Word Family Lessons

<table>
<thead>
<tr>
<th>Letters/Sounds introduced:</th>
<th>a, b, s, m, t, c</th>
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<tbody>
<tr>
<td>★ ab</td>
<td>sab</td>
</tr>
<tr>
<td>★ am</td>
<td>sam</td>
</tr>
<tr>
<td>★ at</td>
<td>sat</td>
</tr>
<tr>
<td>★ ac</td>
<td>sac</td>
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</table>

* Indicates stopped initial sound; students beginning to learn to blend may have difficulty with a stopped sound at beginning.

Continuant sounds are easier.

*as* is avoided because the *s* often has a */z/* sound when making a word.

** After consonant *r* is introduced, it is never placed at the end of a word until Vowel R syllable is introduced.
Letters/Sounds and concepts introduced:

Short and long vowels, digraphs, consonants

New syllable type = Silent-e

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<th>make</th>
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**When using nonsense words or parts of words be sure the student knows that some will not be real words.

Letters/Sounds and concepts introduced:

Short and long vowels, digraphs, consonants

New syllable type = Vowel R

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**Suggested Activities for Developing Orthographic Mapping**

Phonological Awareness – oral activities only; no printed letters or words

- On-set Rime practice with pictures and Elkonin boxes
- On-set Rime practice using lists of words presented orally
- Phonemic Chaining with colored chips representing sounds
Word Reading Activities

Phonemic Awareness – Using letter cards and word cards

❖ Blend sounds on slide

❖ Blending drill with letters, phono cards, or Flip Book
  o Set up letter cards so that only one sound at a time is changed.
  o As student reads word change a card.
  o Read set multiple times for fluency.

❖ Words/syllables on index cards
  o Pay “Splat” – hit word with swatter while reading word/syllable
  o Read Words/syllables on floor while stepping on them – Stepping Stones, Monster Feet, Hop Scotch
  o Tic-Tac-Toe, Bingo Games, “I Have... Do You Have?”
  o Card Flip – lay word cards face down on table. Student flips cards over one at a time and reads word.
❖ Up and Down the Ladder
  o Lay word cards on table in ascending row resembling a ladder.
  o Student uses small animal erasers or game pieces to climb up and down word cards as they read them.

❖ Twister Game
  o Place words on mat from Twister game. Words can be on sticky notes or placed in adhesive pockets.
  o Student uses spinner with colors to match circles on mat or use a game die with different colors on sides. Student spins or rolls to determine which word list to read.

❖ Roll the Dice
  o Attach word cards to large foam die or cube; or write words on dry erase cube.
  o Student rolls die and reads word.

❖ Ball Toss
  o Attach words to soccer ball or beach ball.
  o Throw ball back and forth.
  o Student reads word shown on top.

Connected Text

Provide phrases and sentences for students to read in addition to word lists.

Link Words to Spelling

❖ Pair reading with spelling
❖ Student isolates sounds in words to spell
  o Tap to isolate sounds
  o Use magnetic letters
  o Write words on paper
❖ Connected text
  o Dictate phrases and sentences for student to write
  o Have student read back all spelling
Sources


