

*A Colorado professional learning series  
based on the book*

# Equipped for Reading Success

**by David Kilpatrick, Ph.D.**

Presented by Deb Hoesterey, Educational Consultant

*Developed in collaboration with the Colorado Department of Education*



**COLORADO**  
Department of Education


**Welcome back. We will continue our study of Dr. Kilpatrick's work.**

The image features a sunset background with silhouettes of people. A central black box with a double-line border contains the text 'Module Seven'. Below this, the text 'er 5:' and 'ign...hographic Mapping' is visible.

# Module Seven


er 5:

ign...hographic Mapping



## Goals for Module 7

- Understand what needs to change about how we teach reading and why
- Know the prerequisite skills necessary for orthographic mapping
- Know and understand the appropriate sequence of reading approaches
- Understand *Ehri's Phases of Sight Word Development* and how they impact learning
- *Identify strategies that do not promote orthographic mapping, especially for struggling readers*



Let's introduce the learning goals for Module 7 They include:

- Understand what needs to change about how we teach reading and why
- Know the prerequisite skills necessary for orthographic mapping
- Know and understand the appropriate sequence of reading approaches
- Understand Ehri's Phases of Sight Word Development and how they impact learning
- Identify strategies that do not promote orthographic mapping , especially for struggling readers.

# Train the Prerequisite Skills for Mapping



Chapter 5: Orthographic Mapping and  
Sight Word Learning, pgs. 45 – 46

**Before orthographic mapping can successfully be achieved, prerequisite skills need to be in place... We will study the need for and the process leading to orthographic mapping .**



## Prerequisite Skills Necessary for Mapping



### The skills necessary for mapping are:

1. **Letter-sound proficiency** – Being skilled enough that sounds associated with letters are instantly and unconsciously activated upon seeing letters. This results in more efficient phonic decoding.
2. **Phonemic proficiency** – Essential for efficient storage of written words in long-term memory. It involves the ability to analyze spoken words into phonemes automatically and unconsciously.
3. **Word study** – The conscious or unconscious process of making connections between the oral structure of spoken words and the printed letter sequence used to represent those words.

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3. This skill can be most reliably displayed using a phoneme manipulation task in about one and a half seconds. This demonstrates automaticity. E.g. Say clap without the /l/. The answer is cap. *In order to do this correctly the students first had to segment the words into phonemes, had to determine where in the word the phoneme is, . Then the child had to delete the sound and finally the students had to blend the sounds that are left over. Being able to complete these four phonemic tasks in about one second indicates phonemic proficiency. It is essential for efficient orthographic mapping.*
4. **Word study** – The conscious or unconscious process of making connections between the oral structure of spoken words and the printed letter sequence used to represent those words.



## What needs to change?

**We must look at our current practices for teaching reading. It is essential to use practices supported by scientific research. Recommendations for educators, based on our understanding of orthographic mapping, include:**

- Train the prerequisite skills for orthographic mapping. These are letter-sound skills, phoneme awareness to the level of phonemic proficiency and word study.
- Teach reading in a developmental sequence that mirrors the sequence of phonological awareness development and is consistent with what we know about how children build a strong sight word vocabulary.
- Avoid or postpone teaching word-reading strategies that do not promote orthographic mapping.
- Teach and use specific word study strategies that promote and reinforce orthographic mapping.



- **The manual clearly states that by continuing to use our current practices for teaching, it “virtually guarantees that we will continue to have about 30% of our students reading substantially below grade level.**

**Read bullets on slide...**

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- **Teach reading in a developmental sequence that mirrors the sequence of phonological awareness development and is consistent with what we know about how children build a strong sight word vocabulary.**
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- **Teach and use specific word study strategies that promote and reinforce orthographic mapping**

Sight word reading **happens automatically** without the influence of intention or choice.

## Developmentally Appropriate Sequence of Reading Approaches

See Table 5.1: Ehri's Phases of Sight-Word Development  
pg. 47 in manual

To establish a developmentally appropriate reading program, two issues need consideration:

1. **Phoneme Awareness** is necessary for reading efficiency, and our approach to teaching reading should align with the **development of phoneme awareness.**
2. We must be sure our approach to teaching reading takes into account **the development of sight-word acquisition.**

There are a **sequence of phases** that students go through as they develop sight vocabularies. Linnea Ehri has studied and identified the **four phases of sight word development.**

In addition to teaching prerequisite skills for orthographic mapping , the appropriate developmental sequence of instruction is an important consideration.

The first consideration is phoneme awareness. It is not only necessary for reading efficiency  
but our approach to teaching reading should align with the development of this important skill.

We know that there are a sequence of phases that students go through as they develop sight vocabularies.

Linnea Ehri has studied and identified the 4 phases of sight word development.

In addition, we must take into account the development of sight-word acquisition.



# Ehri's Phases of Sight Word Development

Ehri's Phases of Sight Word Development		Sample Word
1. Pre-Alphabetic Phase		<b>LÔÔK</b>
2. Partial Alphabetic Phase		<b>spent</b>       /s/ /e/ /t/
3. Full Alphabetic Phase		<b>blank</b>           /b/ /l/ /a/ /n/ /k/
4. Consolidated Alphabetic		<b>car pen ter</b>       /car/ /pen/ /ter/

Table 5.1  
Pg. 47 in the manual

Let's look at Table 5.1 on p. 47 in your manuals.

Ehri's phases are pre-alphabetic, partial alphabetic, full alphabetic and consolidated alphabetic.

On the right are sample words that represent the steps in the development of sight word vocabulary. Let's look at the characteristics of each phase starting with the pre-alphabetic phase:





## Pre-Alphabetic Phase

- Children do not have enough letter-sound knowledge to map words to permanent memory.
- Children use visual cues to remember words.
- The cues children use have nothing to do with the sound properties of words.
- Children learn concepts about print during this phase.

**Children in the pre-alphabetic stage are young.**

**They do not have enough letter –sound knowledge to map words to permanent memory.**

**Children use visual cues to remember words.**

**The cues they use have nothing to do with the sound properties of the words.**

**Children also learn concepts about print.**



## Partial Alphabetic Phase

- Students use *some* alphabetic knowledge to store words.
- They usually can match the first sound with the first letter, and sometimes other sound/letter combinations.

s t a n d  
|        |  
/s/     /d/

- Only part of the word is mapped.
- Many weak readers get stuck in this phase.



This Photo by Unknown Author is licensed under CC

**In the *partial alphabetic phase*, students do not have the phoneme awareness nor the letter-sound skills to map all the letter-sound combinations.**

**They use some alphabetic knowledge to store words.**

**They usually can match the first sound with the first letter, and sometimes other salient sound letter combinations.**

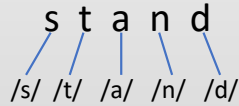
**For example, in the word stand, the child may recognize the first sound-letter combination s says /s/ and possibly the last.**

**Only part of the word is mapped.**

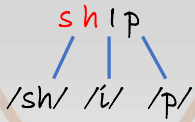
**Many weak readers get stuck in this phase.**

## Full Alphabetic Phase

- Students can map every sound-letter combination in words they see.



- Students would not confuse minimal pairs.
- Student needs solid phoneme-level awareness and letter-sound skills to reach this phase.



**In the Full Alphabetic Phase,**

**Students can map every sound letter combination they encounter.**

**They would not confuse minimal pairs, which are words that differ by only one letter, such as ship and shop.**

**In order to reach this phase, students need to have solid phoneme level awareness and letter-sound skills.**



## Consolidated Alphabetic Phase

- Students attend to bigger word parts and patterns which allows for more efficient mapping and speed.
- Children have stored memories for word parts: *-alk, -ing, -tion*. This helps students to tackle multi-syllabic words.
- They can recognize words by analogy much more efficiently: *talk, walk, stalk*.
- This stage of mature word recognition involves a build-up of sight words from which are derived common orthographic patterns and word parts. This results from well-developed phoneme awareness and exposure to a wide range of words.



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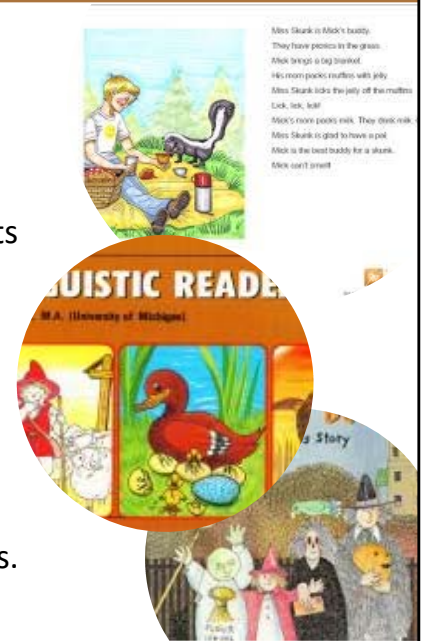
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# Appropriate Reading Materials

- The goal is to *minimize* reading difficulties and *maximize* reading success.
- Be aware of students' development of *letter-sound skills* and *phonological awareness*.
- Pick *developmentally appropriate* materials, especially for students at risk.
- Developmentally appropriate means “*materials that are appropriate to the level at which the students can phonologically and orthographically deal with words*”.
- For emergent readers, if we present materials containing words that are too difficult to phonically decode and remember, we may contribute to them developing inefficient compensatory strategies.



Based on phonological awareness development and phases of sight word development, it is important to match reading methods and materials with where children are in their development.

X Our goal is to minimize reading difficulties and maximize success. X Careful sequencing is primarily intended for students at risk for reading difficulties. 60-70% of students should become good readers, no matter what approach is used.

X We want to pick developmentally appropriate approaches and materials to minimize reading difficulties.

What does developmentally appropriate mean? X Developmentally appropriate means “materials that are appropriate to the level at which the students can phonologically and orthographically deal with words,

X For emergent readers, if we present materials containing words that are too difficult to phonically decode, we may contribute to them developing inefficient compensatory strategies.



# Kindergarten

Students need to:

- master letter names and sounds.
  - develop phonological awareness skills – syllable level and onset-rime.
  - be read to extensively.
- If schools are mandated to teach words in kindergarten, then word families are preferred. A few common *word families* can result in recognizing many words.
  - Limit their exposure to high frequency words that do not follow standard spelling sounds rules until the students develop better letter-sound skills, phonemic skills, and more experience with reading.



**In kindergarten, many students are in the pre-alphabetic phase**

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Develop phonological awareness skills – syllable level and onset-rime.

Be read to extensively.

If schools are mandated to teach words in kindergarten, then word families are preferred. A few common *word families* can result in recognizing many words.

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## First Grade



- When it comes to beginning reading instruction, many might assume that phonics is the developmentally easiest method for teaching reading.
- To be successful, phonics requires phoneme-level processing, which can be challenging for some beginning readers.
- Phonics is most appropriate for students at the *full alphabetic phase* of reading development, even though many students remain at the *partial alphabetic phase*.
- For students with limited phonological skills, phonics will most likely be a struggle. These students would benefit from continued phonemic awareness training and a linguistic approach to reading.

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## What's the alternative?

There are 2 approaches to initial reading that are *easier* than phonics

- **Rebus Reading** – This aligns to the *pre-alphabetic phase*. Appropriate first exposure to the concept of reading. Uses small pictures in place of words. This is not real reading, but it is developmentally easier than phonics.
- **Linguistic Approach** – This aligns with the *partial-alphabetic phase* of sight word recognition, and the onset-rime level of phonological awareness. This approach focuses on the rime unit and is often called the *word family approach*. It is less demanding in terms of phonological awareness skills. Linguistic materials allow students to begin reading text while still developing phoneme-level skills. Kilpatrick says it is like “*training wheels*” for learning to read.

<u>at</u>	
sa <u>t</u>	fla <u>t</u>
ca <u>t</u>	ma <u>t</u>

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## Linguistics First, Phonics Second Approach

If you use “*linguistics first, phonics second approach*” while systematically training phonological awareness, **you will significantly reduce the number of struggling readers.**



Because students are not yet able to map the individual phonemes within rime units to permanent memory a linguistic approach is appropriate.

In a linguistic approach, most words presented in reading are phonemically regular and fit a particular pattern.

Thus the pupil spends the initial learning period on a few consonants and a few vowels. He learns first how to combine consonants and vowels into almost infinite numbers of three and four letter words.

In order for children to perceive the phoneme-grapheme relationship, the linguistic approach emphasizes the teaching of the letters of the alphabet as a beginning procedure. , the linguistic tool of presenting minimal pairs (words which differ only in one consonant or vowel) is used.

Thus, a word such as fat can be easily contrasted with words such as cat and sat. Irregular words are presented as sight words.

X

**X Efficient, permanent storage of rime units occurs in the *full alphabetic phase* when students have the phoneme awareness needed to map words and word parts.**

**X In the *consolidated alphabetic phase*, students use mapped rimes to quickly learn new words. This helps with expanding sight word vocabulary.**








**X This approach allows at-risk readers to start reading without the struggle or compensating.**

**X If you use "*linguistics first, phonics second approach*" while systematically training phonological awareness, you will significantly reduce the number of struggling readers**



## On to Phonics

If a student cannot do basic phoneme-level processing, (Levels H, I, J) they will likely struggle with phonics and as we have said before, could benefit from continued use of linguistic materials and phonemic awareness training.

ai ay	 a-e	ee ea		ie igh	y i-e
oa ow	 o-e	ue ew	 u-e	er ir	ur
or au	 aw	oi oy		ou ow	

**X Once children have started to develop phoneme-level skills, they can move on to phonics materials.**

**X These materials use words with regular spelling patterns.**

**X Children learn words with regular spelling patterns more quickly than irregular words.**

**X It may take until the end of second grade, beginning of third grade to master English phonic decoding because of many irregular words, consonant digraphs, vowel digraphs, blends, and diphthongs in English.**

**X If a student cannot do basic phoneme-level processing, (Levels H, I, J) they will likely struggle with phonics and could benefit from continued use of linguistic materials and phonemic awareness training.**



# Ready for Anything!

**Once children have,**

1. phoneme-level skills,
2. basic mapping skills, and
3. sufficient experience reading phonic materials with consistent sound letter patterns...

**they are ready for any kind of reading approach!**



**Good orthographic mappers can handle irregular words. Continued refinement of letter-sound skills, orthographic patterns and morphological knowledge *should continue through elementary school.***

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The Sequence of Typical Development of Phonological Awareness and Orthographic Mapping/Sight Word Development in Relation to Traditional Reading Approaches

Appropriate Grade Level ★	Phonological Awareness Development ★	Development of Mapping (Ehri's Phases of Sight Word Development) ★	Developmentally Appropriate Reading Level Approach for this Level ★
Pre-K Early Kindergarten	Syllable Level	Pre-Alphabetic	No reading approach is appropriate. Read to students and have them learn letters.
Late Kindergarten Early First Grade	Onset-Rime Level	Partial Alphabetic	Linguistic Approach
Mid First Grade to Late First Grade	Basic Phoneme Level	Full Alphabetic	Phonics Approach
Late First Grade to Early Third Grade	Advanced Phoneme Level	Consolidated Alphabetic	Any reading approach will work at this point

Table 5.2 – pg. 48 in manual

Table 5.2 is on p. 48 in your manual. It organizes the developmental progression of reading related skills taking into consideration X grade level, X the phonological awareness of the child, X what phase of Sight Word Development the student is in, and matches that,X with a developmentally appropriate reading approach.



## Teaching Strategies to Avoid or Postpone

### Avoid or postpone strategies that do not promote orthographic mapping

- If children are **good orthographic mappers**, then it is appropriate to teach them to supplement their phonics skills with contextual guessing.
- However, teaching guessing strategies to children **who are not good orthographic mappers** hinders word reading development.
- If a student guesses a word, he does not have to pay attention to the *internal structure* of a word. Yet attending to the *internal structure* of a word **is the very process needed to store words in permanent memory!**
- We must not teach weak mappers to compensate via guessing. ***“Guessing will not help a weak reader become a strong reader!”***

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## Important to Remember

- Since we now understand what is needed for the process of orthographic mapping, “we cannot continue to use approaches to reading that have consistently yielded a 30% failure rate”.
- What we’ve learned from scientists’ studies are:
  - ❖ teach the skills needed to map words to permanent memory.
  - ❖ teach reading in a developmentally appropriate manner.
  - ❖ avoid teaching reading techniques that circumvent the mapping process needed to remember words. (*e.g., guessing strategies*).
  - ❖ use specific teaching techniques that promote orthographic mapping, a large sight vocabulary, and reading fluency.

“Reading fluency is an important part of reading proficiency and reading a text fluently is critical for comprehending it.”

(Hudson, Torgesen, Lane & Turner, 2010)

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## What's Ahead in Module 8

### Chapter 6 - Word-Study Activities That Promote Orthographic Mapping

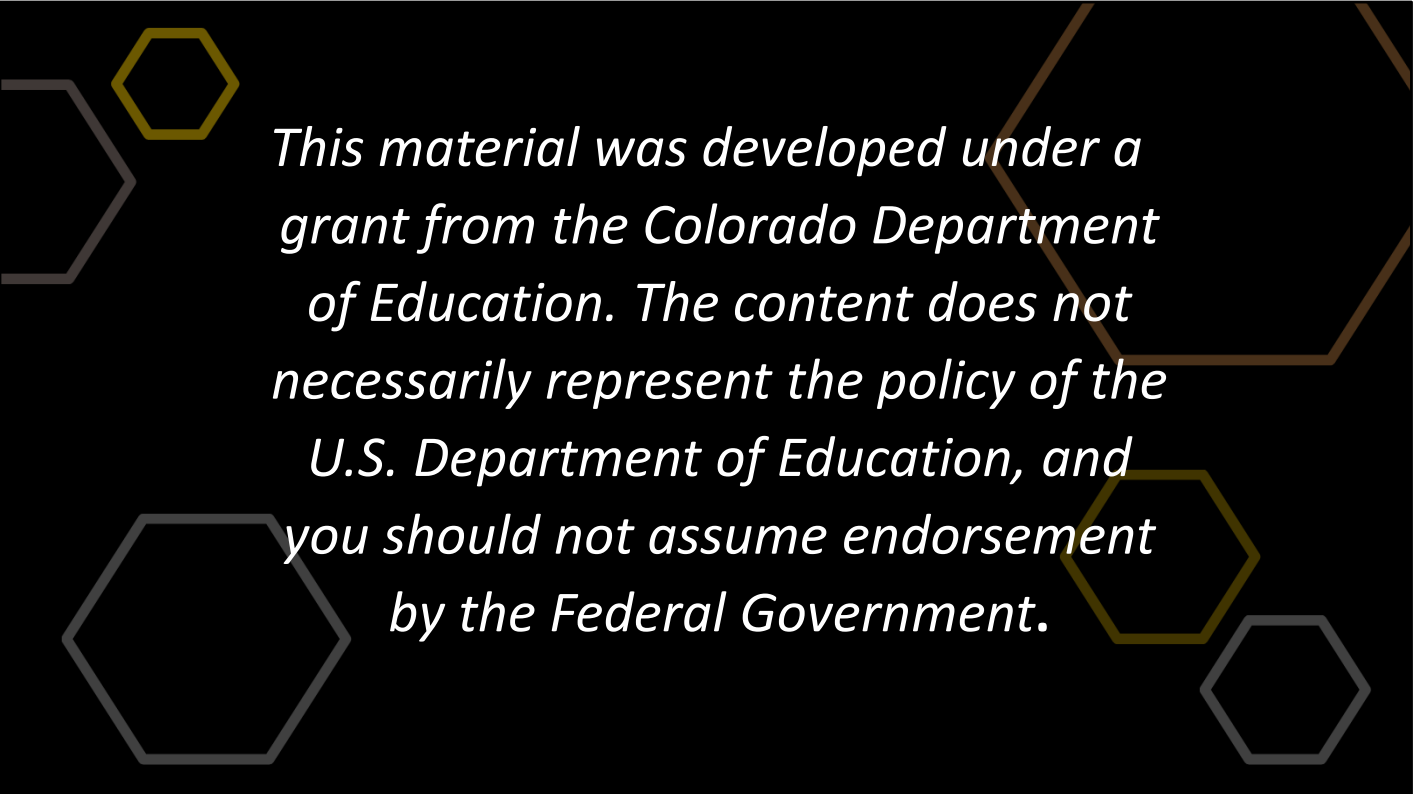
- *Activities That Promote Mapping*
- *Strategies for Beginning Reading Instruction and Remedial Reading Interventions:*
  1. *Teach Students the Vocabulary of Mapping*
  2. *Phoneme to Grapheme Mapping Technique*
  3. *Teach Students to Map Rime Units*
  4. *Introduce Words Orally First*
  5. *Use Look – Alike Words*
  6. *Mapping So-Called “Irregular” Words*



Coming up in Module 8 are Word Study Activities That promote orthographic mapping. In addition to activities that promote mapping, it also includes strategies for beginning reading instruction and remedial reading interventions. We will be focusing on the beginning of Chapter 6:

It covers:

- X Teaching Students the vocabulary of mapping.
- X Phoneme to Grapheme Mapping Technique
- X Teach Students to Map Rime Units
- X Introduce Words Orally First
- X Use Look Alike Words
- X Mapping So-Called Irregular Words



*This material was developed under a grant from the Colorado Department of Education. The content does not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government.*



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<https://www.cde.state.co.us/cdesped/SD-SLD>

