Alphabetic Principle: Concepts and Research

The alphabetic principle is composed of two parts:

- ***Alphabetic Understanding***: Words are composed of letters that represent sounds.

- ***Phonological Recoding***: Using systematic relationships between letters and phonemes (letter-sound correspondence) to retrieve the pronunciation of an unknown printed string or to spell words.

> Phonological recoding consists of:
> - Regular Word Reading
> - Irregular Word Reading
> - Advanced Word Analysis

Regular Word Reading

A *regular word* is a word in which all the letters represent their most common sounds. *Regular words* are words that can be decoded (phonologically recoded).
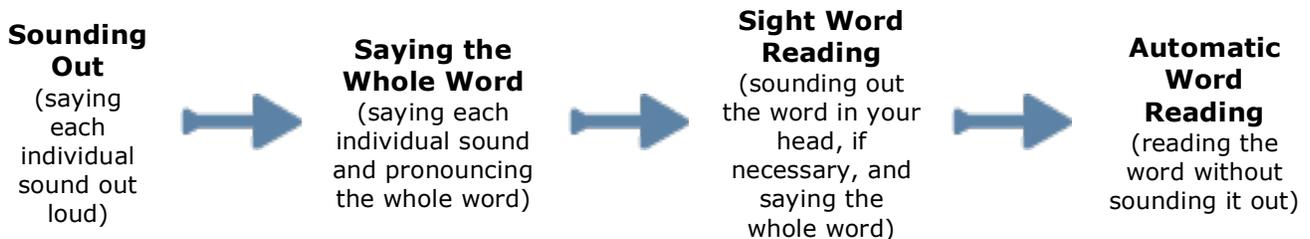
Because our language is alphabetic, decoding is an essential and primary means of recognizing words. There are simply too many words in the English language to rely on memorization as a primary word identification strategy (Bay Area Reading Task Force, 1997).

Beginning decoding ("phonological recoding") is the ability to:
- read from left to right, simple, unfamiliar regular words.
- generate the sounds for all letters.
- blend sounds into recognizable words.

Beginning spelling is the ability to:
- translate speech to print using phonemic awareness and knowledge of letter-sounds.

Progression of Regular Word Reading Skills

Sounding Out
(saying each individual sound out loud)

→

Saying the Whole Word
(saying each individual sound and pronouncing the whole word)

→

Sight Word Reading
(sounding out the word in your head, if necessary, and saying the whole word)

→

Automatic Word Reading
(reading the word without sounding it out)

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Simple Regular Words - Listed According to Difficulty

Word Type	Reason for Relative Ease/Difficulty	Examples
VC and CVC words that begin with continuous sounds	Words begin with a continuous sound	it, fan
VCC and CVCC words that begin with a continuous sound	Words are longer and end with a consonant blend	lamp, ask
CVC words that begin with a stop sound	Words begin with a stop sound	cup, tin
CVCC words that begin with a stop sound	Words begin with a stop sound and end with a consonant blend	dust, hand
CCVC	Words begin with a consonant blend	crib, blend, snap, flat
CCVCC, CCCVC, and CCCVCC	Words are longer	clamp, spent, scrap, scrimp

Irregular Word Reading

Although decoding is a highly reliable strategy for a majority of words, some irregular words in the English language do not conform to word-analysis instruction (e.g., the, was, night). Those words are referred to as **irregular words**.

Irregular Word: A word that cannot be decoded because either (a) the sounds of the letters are unique to that word or a few words, or (b) the student has not yet learned the letter-sound correspondences in the word (Carnine, Silbert & Kame'enui, 1997).

Irregular

Words whose sounds do not result in the correct pronunciation of the word (e.g., none, right).

Words containing letter sounds students do not yet know.
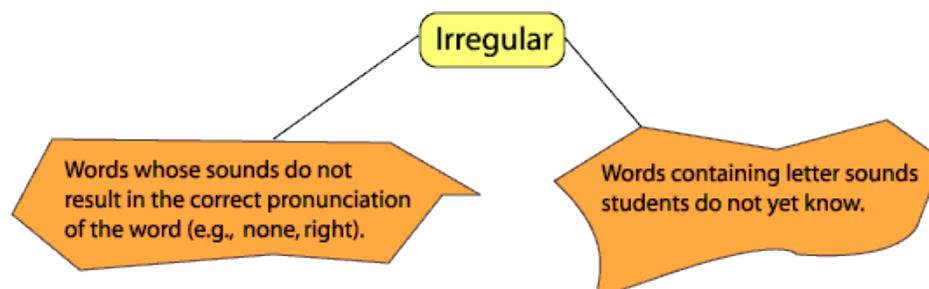
Texas Center for Reading and Language Arts, 1998

- In beginning reading there will be passages that contain words that are "decodable" yet the letter sound correspondences in those words may not yet be familiar to students. In this case, we also teach these words as irregular words.
- To strengthen students' reliance on the decoding strategy and communicate the utility of that strategy, we recommend *not introducing irregular words until students can reliably decode words at a rate of one letter-sound per second*. At this point, irregular words may be introduced, but on a limited scale.
- The key to irregular word recognition is not how to teach them. The teaching procedure is simple. The critical design considerations are *how many to introduce* and *how many to review.*

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Advanced Word Analysis

Advanced word analysis involves being skilled at phonological processing (recognizing and producing the speech sounds in words) and having an awareness of letter-sound correspondences in words.

Advanced word analysis skills include:

- Knowledge of common letter combinations and the sounds they make
- Identification of VCe pattern words and their derivatives
- Knolwedge of prefixes, suffixes, and roots, and how to use them to "chunk" word parts within a larger word to gain access to meaning.

"Knowledge of advanced word analysis skills is essential if students are to progress in their knowledge of the alphabetic writing system and gain the ability to read fluently and broadly."
                                        Texas Center for Reading and Language Arts, 1998

Definitions of key Alphabetic Principle Terminology:

- Alphabetic Awareness: Knowledge of letters of the alphabet coupled with the understanding that the alphabet represents the sounds of spoken language and the correspondence of spoken sounds to written language.
- Alphabetic Principle: The ability to associate sounds with letters and use these sounds to form words.
- Alphabetic Understanding: Understanding that the left-to-right spellings of printed words represent their phonemes from first to last.
- Continuous Sound: A sound that can be prolonged (stretched out) without distortion (e.g., r, s, a, m).
- Decodable Text: Text in which the majority of words can be identified using their most common sounds. Reading materials in which a high percentage of words are linked to phonics lessons using letter-sound correspondences children have been taught. Decodable text is an intermediate step between reading words in isolation and authentic literature. These texts are used to help students focus their attention on the sound-symbol relationships they are learning. Effective decodable texts contain some sight words that allow for the development of more interesting stories.
- Decoding: The process of using letter-sound correspondences to recognize words.
- Grapheme: The individual letter or sequence of written symbols (e.g., a, b, c) and the multiletter units (e.g., ch, sh, th) that are used to represent a single phoneme.
- Irregular Word: A word that cannot be decoded because either (a) the sounds of the letters are unique to that word or a few words, or (b) the student has not yet learned the letter-sound correspondences in the word.
- Letter Combination: A group of consecutive letters that represents a particular sound(s) in the majority of words in which it appears.
- Letter-Sound Correspondence: A phoneme (sound) associated with a letter.
- Most Common Sound: The sound a letter most frequently makes in a short, one syllable word, (e.g., red, blast). Click here to see a list of the most common sounds of single letters.
- Nonsense or Pseudoword: A word in which the letters make their most common sounds but the word has no commonly recognized meaning (e.g., tist, lof).

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- Orthography: A system of symbols for spelling.
- Phonological Recoding: Translation of letters to sounds to words to gain lexical access to the word.
- Regular Word: A word in which all the letters represent their most common sound.
- Sight Word Reading: The process of reading words at a regular rate without vocalizing the individual sounds in a word (i.e., reading words the fast way).
- Sounding Out: The process of saying each sound that represents a letter in a word without stopping between sounds.
- Stop Sound: A sound that cannot be prolonged (stretched out) without distortion. A short, plosive sound (e.g., p, t, k).
- VCe Pattern Word: Word pattern in which a single vowel is followed by a consonant, which, in turn, is followed by a final e (i.e., lake, stripe, and smile).

Alphabetic Principle Skills

To develop the alphabetic principle across grades K-3, students need to learn two essential skills:

- Letter-sound correspondences: comprised initially of individual letter sounds and progresses to more complex letter combinations.

- Word reading: comprised initially of reading simple CVC words and progresses to compound words, multisyllabic words, and sight words.

Kindergarten Skills

Letter-sound correspondence: identifies and produces the most common sound associated with individual letters
Decoding: blends the sounds of individual letters to read one-syllable words.
- When presented with the word fan the student will say "/fffaaannn/, fan."
Sight word reading: Recognizes and reads words by sight (e.g., I, was, the, of).

First Grade Skills

Letter-sound and letter-combination knowledge: produces the sounds of the most common letter sounds and combinations (e.g., th, sh, ch, ing).
Decoding: sounds out and reads words with increasing automaticity, including words with consonant blends (e.g., mask, slip, play), letter combinations (e.g., fish, chin, bath), monosyllabic words, and common word parts (e.g., ing, all, ike).
Sight words: Reads the most common sight words automatically (e.g., very, some, even, there).

2nd and 3rd Grade Skills

Letter-Sound Knowledge: produces the sounds that correspond to frequently used vowel diphthongs (e.g., ou, oy, ie) and digraphs (e.g., sh, th, ea).
Decoding and Word Recognition:
- applies advanced phonic elements (digraphs and diphthongs), special vowel spellings, and word endings to read words.

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- Reads compound words, contractions, possessives, and words with inflectional word endings.
- Uses word context and order to confirm or correct word reading efforts (e.g., does it make sense?).
- Reads multisyllabic words using syllabication and word structure (e.g. base/root word, prefixes, and suffixes) in word reading.

Sight word reading: increasing number of words read accurately and automatically.

What Teachers Should Know:

- Components and definition of alphabetic principle.
- The relation of phonemic awareness & decoding.
- The critical stages in learning to decode words.
- Features that influence the difficulty of word recognition.
- Critical differences between regular and irregular words.
- Terminology (alphabetic principle, orthography, grapheme, phonological recoding)

(modified from Moats, 1999)

What Teachers Should Be Able to Do:

- Sequence letter-sound correspondences to enhance word recognition.
- Assess & diagnose decoding skills.
- Select examples according to complexity of word type and letter sounds.
- Explicitly teach letter sounds, blending, sight word, and connected text reading.
- Give corrective feedback.
- Evaluate design of materials.

(modified from Moats, 1999)

What Does the Lack of Phonemic Awareness Look Like?

Children lacking phonemic awareness skills cannot:

- Understand that words are composed of letters.
- Associate an alphabetic character (i.e., letter) with its corresponding phoneme or sound.
- Identify a word based on a sequence of letter-sound correspondences (e.g., that "mat" is made up of three letter-sound correspondences /m/ /a/ /t/).
- Blend letter-sound correspondences to identify decodable words.
- Use knowledge of letter-sound correspondences to identify words in which letters represent their most common sound.
- Identify and manipulate letter-sound correspondences within words.
- Read pseudowords (e.g., "tup", with reasonable speed).

Alphabetic Principle Research Says:

- Letter-sound knowledge is prerequisite to effective word identification. A primary difference between good and poor readers is the ability to use letter-sound correspondence to identify words (Juel, 1991).

- Students who acquire and apply the alphabetic principle early in their reading careers reap long-term benefits (Stanovich, 1986).

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- Teaching students to phonologically recode words is a difficult, demanding, yet achievable goal with long-lasting effects (Liberman & Liberman, 1990).

- The combination of instruction in phonological awareness and letter-sounds appears to be the most favorable for successful early reading (Haskell, Foorman, & Swank, 1992).

- Good readers must have a strategy to phonologically recode words (Ehri, 1991; NRP, 2000).

- During the alphabetic phase, reading must have lots of practice phonologically recoding the same words to become familiar with spelling patterns (Ehri, 1991).

- Awareness of the relation between sounds and the alphabet can be taught (Liberman & Liberman, 1990).

- Because our language is alphabetic, decoding is an essential and primary means of recognizing words. There are simply too many words in the English language to rely on memorization as a primary word identification strategy (Bay Area Reading Task Force, 1996).

- The table below illustrates the important correlation between the ability to decode words and reading comprehension (Foorman, et. al., 1997).

TABLE 1
Correlations Between Decoding and Comprehension
in the Connecticut Longitudinal Study

Compre-hension	GR. 1	GR. 2	GR. 3	GR. 4	GR. 5	GR. 6	GR. 7	GR. 8	GR. 9
Grade 1	.89								
Grade 2	.75	.83							
Grade 3	.70	.74	.77						
Grade 4	.64	.71	.74	.73					
Grade 5	.58	.63	.68	.67	.70				
Grade 6	.59	.65	.67	.68	.66	.69			
Grade 7	.53	.61	.65	.65	.67	.68	.69		
Grade 8	.49	.58	.62	.62	.64	.65	.65	.63	
Grade 9	.52	.58	.60	.62	.60	.63	.63	.61	.63

Note. All correlations are significant at p<.001 and sample sizes range from 390 to 403.

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References:

Bay Area Reading Task Force (1997). *A reading-writing-language source book for the primary grades*. San Francisco, CA: University School Support for Educational Reform.

Carnine, D. W., Silbert, J., & Kameenui, E. J. (1997). *Direct instruction reading (3rd ed.)*. Upper Saddle River, NJ: Merrill/Prentice-Hall.

Ehri, L. (1991). Development of the ability to read words. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.), *Handbook of Reading Research* (pp. 383-417). New York: Longman.

Foorman, B. R., Francis, D. J., Shaywitz, S. E., Shaywitz, B. A., & Fletcher, J. M. (1997). *The case for early reading intervention*. Hillsdale, NJ: Erlbaum.

Haskell, D. W., Foorman, B. R., & Swank, P. R. (1992). Effects of three orthographic/phonological units on first-grade reading. *Remedial and Special Education, 13*, 40-49.

Juel, C. (1991). Beginning reading. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (pp. 759-788). New York: Longman.

Liberman, I. Y., & Liberman, A. M. (1990). Whole language vs. code emphasis: Underlying assumptions and their implications for reading instruction. *Annals of Dyslexia, 40*, 51-76.

Moats, L. C. (1999). *Teaching reading is rocket science: What expert teachers of reading should know and be able to do.* Washington, D. C.: American Federation of Teachers.

National Reading Panel (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction [on-line]. Available: http://www.nichd.nih.gov/publications/nrp/smallbook.htm.

Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*, 360-406.

Texas Center for Reading and Language Arts (1998). *Professional Development Guide*. Austin, TX: Texas Center for Reading and Language Arts, University of Texas at Austin.