



	Morning	Afternoon
Unemployed	59,567	15,749
Not Employed or Seeking Work	27,495	8,116

Alphabets: Research and Teaching Strategies

This research digest on alphabets is one of a series that reviews four components of reading: alphabets, fluency, vocabulary, and comprehension. This digest contains a discussion of current research on alphabets, provides references, and suggests strategies for teaching alphabets to adult learners.

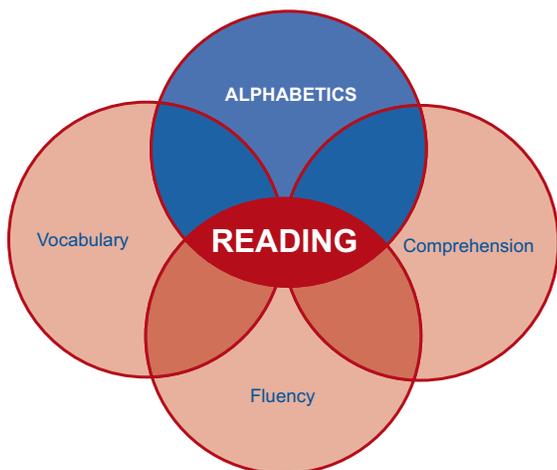
Alphabets Defined

Alphabets refers to the relationship of the letters of the alphabet to the spoken word. It includes two main parts—phonemic awareness and decoding (word analysis). **Phonemic awareness** is both the understanding that every spoken word is a sequence of separate sounds, and the ability to hear, identify, and manipulate the individual sounds (phonemes) that make up spoken words.

Readers use their phonemic awareness for **decoding**, which is the process of converting letters into sounds and blending the sounds into recognizable words (Ehri, 2004). Using decoding skills, learners are able to read unknown words.

The terms *phonemic awareness*, *phonemes* (the basic sounds), and *phonics* can be confusing. Phonics is a *method* for teaching word identification that stresses letter-sound relationships. For phonics instruction to be effective, learners must possess basic phonemic awareness.

The Four Components of Reading



The Need for Alphabets Instruction

Of the four components of reading, alphabets stands out as the focus of the most research and policy interest (Belzer & St. Clair, 2003; Weiner, 2005). There is a substantial body of research on alphabets to draw on from kindergarten through 12th grade (K-12), which was summarized in a report from the National Reading Panel in 2000. In 2002, the National Institute for Literacy published *Research-Based Principles for Adult Basic Education Reading Instruction* (Kruidenier, 2002), which provides a meta-analysis of the research on reading in adult basic education (ABE) and suggestions on how the National Reading Panel's findings can inform the work of adult educators.

A major trend in both resources is the emphasis on alphabets as supporting the other components of reading: fluency, vocabulary, and comprehension. Surveys of adult literacy learners suggest that struggling readers at the lowest levels need to increase phonemic awareness (Belzer & St. Clair, 2003). Kruidenier (2002), in his meta-analysis, notes two studies that revealed an increase in reading comprehension when alphabets was a significant part of instruction. Kruidenier states that those adults who are non-readers have "virtually no phonemic awareness ability and are unable to consistently perform, on their own, almost all phonemic awareness tasks." Citing the work of Pratt and Brady (1988), Kruidenier notes that advanced ABE readers were significantly better at phonemic awareness tasks than beginning ABE readers, and he suggests that learners' phonemic awareness may continue to develop at least until decoding ability is firmly established.

For English language learners, alphabets instruction can present challenges. Some learners may be literate in languages that do not use an alphabetic script. For example, the Mandarin and Cantonese dialects use ideographs to represent spoken language. Learners who are literate in these scripts have skills that do not automatically transfer to a new language and script. Learners who first become literate using ideographic characters have been found to rely more on word recognition skills when reading English than on breaking down individual parts of words (Wade-Wooley, 1999). Alphabetic scripts that do not mark vowels (such as Arabic and Hebrew) present similar problems, and readers' skills may not transfer from one alphabetic script to the next (Birch, 2002).

Assessment of Alphabetics

To master alphabetics and move on to higher levels of reading, learners first need to be individually assessed on their alphabetic skills, placed at the appropriate class level, and provided the correct level of materials. Without proper initial assessment, learners may easily become discouraged and leave their reading programs.

Researchers increasingly focus on obtaining a full picture of learners' knowledge of alphabetics by conducting oral rather than written assessments. Learners can be assessed using oral phoneme manipulation exercises such as these adapted from the National Reading Panel report (2000b).

Note that letters that appear between slashes in the following paragraphs should be read as sounds, not letters. For example, /j/ is read as the first sound in **judge**, not as **jay**.

Phoneme isolation

(Recognizing individual sounds in a word)

Teacher: What is the first sound in...?

card	part
tank	seal
garden	miss

Teacher: What is the last sound in each?

Phoneme identity

(Recognizing the same sounds in different words)

Teacher: What sound is the same in **map**, **mill**, **mess**, **mob**?

Learners: The first sound /m/ is the same.

Phoneme categorization

(Recognizing the word that has the odd sound in a set of three or four words)

Teacher: Which word doesn't belong in **nap**, **not**, **most**, **near**?

Learners: The word **most** doesn't belong because it doesn't begin with /n/.

Phoneme deletion

(Recognizing the word that remains when a phoneme is removed from a word)

Teacher: What word remains when you delete a sound (phoneme) in each of the following?

punk without the /k/
feel without the /f/
tall without the /t/
bunch without the /b /
clamp without the /p/

Another oral assessment used to identify learners' alphabetics skills is the *Names Test* (Mather, Sammons, & Schwartz, 2006), in which learners read a list of people's names aloud. The names selected contain the most common sound-letter combinations. The assessment's authors attempted to isolate learners' knowledge of sound-letter relationships from context clues. A similar test relies on the use of nonsense words (e.g., splurk, flarf) that follow English spelling patterns but have no meaning. When decoding nonsense words, learners cannot call on their vocabulary or sight word knowledge, but must rely on their decoding skills. Researchers suggest that this kind of assessment should only be used with native English speakers, because nonsense words may be confusing to second language learners (Burt, Peyton, & Duzer, 2005).

Oral assessments are in general preferable to written assessments for capturing elements of alphabetics because learners' other reading skills (e.g., reading comprehension strategies) may mask problems with decoding on written tests (Strucker, 1997). The Adult Reading Components Study (ARCS) (Strucker & Davidson, 2003), found that many learners have trouble decoding consonant sounds and others struggle with words containing multiple vowel patterns. By identifying the specific nature of adult learners' needs, teachers can use alphabetics instruction to support learners' reading development. Online training based on the results of ARCS is available at <http://www.nifl.gov/readingprofiles/>.

Learners can participate in assessing their reading skills by reflecting on their personal abilities, and they may offer insights into the challenges they face. In one survey (Sawyer & Joyce, 2006), 65 percent of participants thought spelling was a problem for them. Another study (Viise & Austin, 2005) found that learners overestimated their ability to decode. Teachers can promote learner self-assessment by helping learners identify their own skills, such as decoding or use of context clues.

Learning and Teaching Alphabetics

Based on the National Reading Panel (2000a) report and a review of the ABE research literature, Kruidenier (2002) suggests that phonemic awareness and decoding (word analysis) can be taught through direct instruction. The need for systematic phonics instruction, as opposed to incidental instruction, emerges as an important finding from the National Reading Panel report, and Kruidenier extends this idea to ABE by suggesting that teachers teach decoding using systematic programs that focus on individual phonemes or that focus on larger parts of words. He also reports that the phonemic awareness skills that will benefit learners most are **blending** and **segmenting** (see Teaching Strategies below). Kruidenier recommends against teaching a combination of three or more skills at the same time.

Many ABE teachers find literacy-level commercial texts helpful for teaching phonemic awareness, and phonics-based texts helpful for establishing systematic instruction in decoding skills. Learners can benefit from the logically sequenced content and direct instruction approach inherent in using a classroom text. English language learners may need direct instruction if their native language is not alphabetic. Direct instruction also is helpful for learners with learning disabilities (Sawyer & Joyce, 2006). Explicit phonemic awareness exercises, such as those described in the Teaching Strategies section of this digest, can help build phonemic awareness.

Teaching Strategies

Phoneme blending

Learners listen to a sequence of individually spoken phonemes and then combine them to form a word. Next, they write and read the word.

Teacher: What word is /m/ /e/ /t/ ?

Learners: /m/ /e/ /t/ is **met**.

Phoneme segmentation

Learners break a word into its separate sounds, saying each word as they tap out or count it. Then they write and read the sounds.

Teacher: How many sounds are in **mark**?

Learners: /m/ /a/ /r/ /k/. Four sounds.

Syllable-based instruction

Learners benefit from explicit instruction of syllable patterns. Researchers vary in their recommendations about the best sequence to use in teaching syllables. Below is the sequence for teaching syllables from the reading toolkit created for the U. S. Department of Education by the Office of Vocational and Adult Education (Curtis & Bercovitz, 2004).

- Closed syllable (ends with a consonant), *mom, cat*
- Open (long), *become, November*
- Double vowel, *need, boot, mean*
- Consonant-le (at the ends of words), *buckle, edible*
- R-controlled vowel, *bird, surf*
- Vowel-consonant-e (long vowel), *compete, propose*
- Idiosyncratic, *village, votive*

Word families

A word family is a group of letters that has the same sound when found in different words, such as

- The **ite** word family—**bite, kite, white**, etc.
- The **ole** word family—**hole, mole, role**, etc.

The teacher begins by providing an example of a word family on the

board and a list of representative words from word families. The teacher asks learners to generate as many words as possible in one word family. Learners can divide into groups and compete to come up with the most words.

Language experience approach

Language experience activities are an effective way to create text using learners' words that learners can then use to practice alphabetic skills. The activity typically begins in response to a question posed by the teacher, such as *Why do you live in California?* Teachers record learners' sentences on paper, writing the sentences precisely as the learners say them, with no changes to syntax or grammar. The learners' words then become the text that the teacher and learners use for decoding and phonemic awareness practice. Working with their own stories as text helps learners see the connection between their words and the written representation of them. Learners may read their texts aloud to others or independently to themselves.

Skywriting

Skywriting is not a decoding strategy, but teachers often use it in conjunction with decoding lessons. The teacher begins by writing a phonetically irregular word (e.g., *they, sight*) on the board and encouraging learners to use their whole arm to trace the letters of the word in the air. Learners should say the name of each letter as they trace it, erase the word and trace it in the air again while saying the letters, and then trace the word on their desks with a finger while saying the letters. Finally, the teacher should ask the learners to repeat this process using pen and paper.

Professional Development

Workshops

CALPRO offers two 4-hour *Research-Based Adult Reading Instruction* workshops in which adult educators examine the definitions and research basis of the four components of reading and practice instructional and assessment strategies for each component. In *Session 1*, participants explore alphabets and fluency, and in *Session 2*, vocabulary and comprehension. For workshop information, visit the CALPRO Web site, www.calpro-online.org, and click on the "calendar," or contact your local CALPRO Professional Development Center.

Study Circles

CALPRO promotes site-based professional development on adult reading instruction by training teachers to facilitate study circles at their agencies. Study circles offer teachers an opportunity to develop their knowledge base in reading instruction as they read about, discuss, and explore the latest research on reading. For information on study circle facilitator training, visit the CALPRO Web site or call 800-427-1422, toll-free in California.

Additional Resources on Alphabetics

The Adult Reading Components Study (ARCS)
www.nifl.gov/readingprofiles/arcs.htm

Applying Research in Reading Instruction for Adults: First Steps for Teachers
www.nifl.gov/partnershipforreading/publications/adult.html

National Center for the Study of Adult Learning and Literacy
www.ncsall.net

National Institute for Literacy
www.nifl.gov

Reading and Adult English Language Learners:
 A Review of the Research
www.cal.org/caela/research/raell.pdf

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