Reading and Adult English Language Learners

A Review of the Research

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SERIES ON PREPARING ADULT ENGLISH LANGUAGE LEARNERS FOR SUCCESS

Adult ESL Instruction in the 21st Century, by NCLE Staff

Preparing for Success: A Guide for Teaching Adult English Language Learners, by Brigitte Marshall

Reading and Adult English Language Learners: A Review of the Research, by Miriam Burt, Joy Kreeft Peyton, and Rebecca Adams

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English Language Learners in the United States

How do adult learners learn to read in English? What are the best ways to teach reading to this population? Over the past 20 years, a growing number of adult ESL educators have sought the answers to these questions as they grapple with the challenges posed by an increasingly large and diverse population of adults in the United States learning English as a second language (ESL).

According to the 2000 Census, more than 35 million adults are nonnative speakers of English, and 9 million adults do not speak English well or at all (U.S. Census Bureau, 2001). This population has become a significant part of adult education programs. According to the U.S. Department of Education, 42% of adults (or more than 1 million learners) enrolled in state-administered, federally funded adult education programs are enrolled in ESL classes (U.S. Department of Education, 2002).

This percentage does not include English language learners who are being served within other segments of the public educational system, such as adult basic education (ABE) and adult secondary education (ASE) classes. In addition, adult ESL services are provided through private language schools and academic institutions and in programs sponsored by community-based organizations and large national volunteer literacy organizations such as Laubach Literacy and Literacy Volunteers of America (combined in October 2002 into one organization, ProLiteracy). Laubach Literacy (2001) reported that in 1999-2000, approximately 77% of their member programs provided ESL instruction to adult English language learners.

The increase in English language learners has been accompanied by an increase in adults with limited literacy in English. The National Adult Literacy Survey (NALS), conducted between 1989 and 1992 to study adults' English literacy levels, found that 23% of the adult population studied measured at Level 1: "able to perform simple, routine tasks involving brief and uncomplicated texts and documents" (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993, p. xiv), while 27.3% measured at Level 2: "generally able to locate information in text, make low-level inferences using printed materials, and integrate easily identifiable pieces of information, and to perform quantitative tasks that involve a single operation" (pp. xiv-xv). These findings indicate that more than half of the population studied had low English literacy skills. Furthermore, more than half of those scoring at Levels 1 and 2 were immigrant adults, and 64% of those with a native language other than English scored at Level 1.[1] These results indicate that a much higher percentage of nonnative English speakers than native English speakers read English at the lowest levels of literacy.

The population of nonnative English speakers who also have limited literacy skills in many ways reflects the nature of immigration into the United States. Since the mid-1970s, many immigrants have come from countries where a large portion of the population does not have access to literacy or where the commonly spoken languages are not written (Huntley, 1992). These changes in immigration patterns have increased the need for English language and literacy instruction for adults in the United States.

Because adult learners in ESL literacy programs come from diverse backgrounds and have widely differing experiences with literacy in their first languages, they have different purposes for literacy learning. These diverse purposes should be considered in program and instructional planning.

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[1] Recent reviews of the 1993 National Adult Literacy Survey (e.g., Mathews, 2001) point out that the study did not find that 74 million American adults could not read at all, as was initially reported in the media. Many of that number have limited literacy skills—that is, they are able to read at a basic level. However, because their literacy level may not meet the levels required for effective performance or promotion in jobs in the United States, they are considered functionally nonliterate.
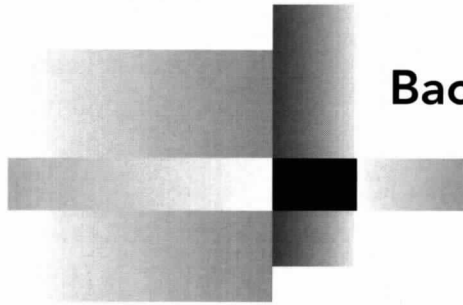
Background and Overview

The purpose of this paper is to give practitioners, graduate students, researchers, and policy makers information about what is known about how adult English language learners learn to read in English, what types of activities facilitate this process, and what research still needs to be done.

This paper was developed from a search of the research literature on reading development among adult English language learners in the United States in the last 20 years (1980-2000). An annotated bibliography of this research (Adams & Burt, 2002) includes research published in refereed (peer-reviewed) journals, dissertations, the ERIC database, the Modern Language Association database, the Linguistics and Language Behavior Abstracts database, and books. The research in the bibliography focuses on the reading (and, where applicable, general literacy) development of adults (aged 16 years and older) who are learning English and are being served in adult education and college-based intensive English programs (IEP) rather than in secondary school programs. Studies have been included if they report outcomes related to reading (and, where applicable, general literacy) development, descriptions of the adults participating, the interventions or study situations, and the procedures and outcome measures. The intention was to include studies that met the following criteria: use of experimental or quasi-experimental methodologies based on valid comparisons between groups (with statistical tests for significance); non-experimental methods that provide evidence when little or no experimental data exist; and qualitative methods (descriptive and practitioner research) based on a sound analytical framework or non-experimental group comparisons (e.g., comparing performances of a single group or individual, before and after a specific teaching intervention). The majority of studies fall in the last two categories.

The bibliography identifies the reading research on adult learners in non-postsecondary education settings—adult education programs, community-based programs, and workplace literacy programs. However, because only a limited amount of research has been conducted in these settings and with these learners, the bibliography (and this synthesis) also includes studies that were conducted in Intensive English Programs (IEPs). (See Adams & Burt, 2002, for a discussion of the types of learners in these two types of programs.)

The first part of this paper describes factors that need to be taken into account in literacy instruction for adults learning English—learners' levels of literacy in the first language, levels of oral proficiency in English, educational backgrounds, and goals for learning English. Subsequent sections give an overview of the reading process for second language learners; discuss the benefits of reading for promoting second language development; and summarize research findings, their implications for practice, and major areas in which research is needed.

Additional research should be forthcoming. On October 2, 2002, The U.S. Department of Education, Office of Vocational and Adult Education (OVAE); the National Institute of Child Health and Human Development (NICHD); and the National Institute for Literacy (NIFL) announced $18.5 million in grant awards to six projects that will study the most effective methods and approaches for teaching reading skills to low-literate adults (National Institute for Literacy, 2002) Each of the projects will use experimental or quasi-experimental research designs. These grants were awarded in response to the national push for educational reform, accountability, and evidence-based research to inform instructional practice for all learners. (For more information about this initiative a how it affects adult learners, see National Institute of Child Health and Human Development, 2002). Although none of the projects addresses English language learners specifically, it is assumed that there will be non-native English speakers in the studies. This research should help to move the field forward, and it is hoped that research studies focused specifically on adult English language learners will follow. In the meantime, we hope that this document, which discusses what is known now about adult English language learners, will be of use to the field.

Factors Influencing Adult Literacy Development in English

M any factors influence the literacy development of adults learning English and should be considered in planning instruction for them. These factors include learners':

- ages;

- motivations to read;

- instructional, living, and working environments;

- sociocultural backgrounds;

- socioeconomic status; and

- learning abilities or disabilities (National Center for ESL Literacy Education, 1998; Wrigley & Guth, 1992).

This paper focuses on the factors that have received the most attention in the literature on learning to read in English as a second language: learners' first language (L1) literacy and transfer from L1 to L2 (second language) literacy, educational background, second language proficiency, and goals for learning English.

FIGURE 1

Factors Influencing L2 Literacy Development

- ❖ L1 literacy
- ❖ Educational background
- ❖ L2 language and literacy
- ❖ Learner goals

First Language Literacy

In many adult ESL programs, decisions about learner placement and instructional approaches are based on learners' oral proficiency in English, the second (or additional) language. However, learners' first language may also influence the types of instruction that learners need and the rates of progress they are likely to make (Robson, 1982; Strucker, 2002).

Huntley (1992) argues that the following types of L1 literacy background should be considered in adult ESL education: *preliterate, nonliterate, semiliterate,* and *non-Roman alphabet literate.* Birch (2002) adds to these types nonalpahabet literate (See Birch, 2002, pp. 27-38, and Huntley, 1992, for an in-depth discussion of these categories.) Birch and others (Hilferty, 1996; Strucker, 2002) add *Roman alphabet literate.*

Preliterate learners come from cultures where literacy is uncommon in everyday life. This category includes learners whose native language is not written, has only recently been written, or is being developed. For example, most Bantu people of Somalia are preliterate in their native language, Af-Maay, because it has only recently been codified. The Dinka people (a refugee group from the Sudan) are also preliterate, as a written form for their language is in the process of being developed. Preliterate English language learners often have had little or no exposure to written text and may not be aware of the purposes of literacy in everyday life. They need to be taught how written language works. Traditionally, literacy instruction for preliterate learners builds on their oral language knowledge and is supported by oral language activities (Carroll, 1999; Huntley, 1992). Preliterate learners should receive special ESL literacy instruction, in addition to oral ESL. Because they generally progress slowly in literacy and other language instruction and require reteaching of skills and concepts (Robson, 1982; Strucker, 2002), they should be placed in separate classes from literate learners.

Nonliterate learners come from cultures where literacy is available, but they have not had sufficient access to literacy instruction, often because of their socioeconomic status. For example, many adult learners from Central America may not know how to read or write in their native Spanish because of disrupted schooling due to war and poverty. Although these learners have

not learned to read, they have probably had some exposure to written language and thus may have a greater awareness of the value and uses of literacy than preliterate learners (D. Red, personal communication, January 28, 2002). Teachers who work with these learners have found that they may be reluctant to disclose their limited literacy background in class, and instruction with them may proceed slowly. However, they are often highly motivated to learn. For preliterate and nonliterate learners, written materials used as teaching aids may have limited value. Learners' retention of classroom material may also be limited if they cannot use educational texts and take class notes for later review.

Semiliterate learners usually have had access to literacy in their native culture, but because of their socioeconomic status or educational situation, they have not achieved a high level of literacy in their native language. These learners may have left school at a young age for economic or political reasons, as was the case with many Southeast Asian refugees and Central American immigrants in the 1970s and 1980s (Holt, 1995; Ranard & Pfleger, 1995). Robson (1982), in a small study of Hmong learners of English at a refugee camp in Thailand, found that even adults with minimal literacy in Hmong acquired English reading skills more rapidly than those who had no Hmong literacy.

Learners' retention of classroom material may also be limited if they cannot use educational texts and take class notes for later review.

Similarly, a study of adult Haitians learning English in New York City (Burtoff, 1985) found that those who received native language literacy instruction while learning English developed greater literacy skills than did the English only group, even though the total number of instructional hours for the English only group and the native language literacy and English instruction group was equal. Unfortunately, there were only 24 students in Burtoff's study, accurate attendance records were not kept, there was no control on curriculum or teacher differences, the classes compared were of different sizes, and the 24-week study may have been too short to detect a lasting effect of instruction on learning. Although strong conclusions cannot be drawn from these studies, they do point to the need to examine the value of native language literacy instruction prior to or at the same time as the learning of English literacy.

Researchers are now identifying students who have been educated primarily in the United States but who have characteristics similar to those described above. Referred to as "Generation 1.5" learners, they have immigrated to the United States, where they have attended schools and developed oral fluency in English. However, they are not literate in their native language, and they struggle with reading and writing in English. They may remain in ESL classes throughout their public school education and enter ESL programs as adults or need special attention in college programs (Harklau, Losey, & Siegal, 1999).

As a result of previous failures, many semiliterate, including generation 1.5, learners may approach English literacy learning with trepidation. They need to be given opportunities to increase their self-confidence in educational situations and to develop positive images of themselves as readers (Goldberg, 1997; Strucker, 1997).

It should be pointed out that preliterate, nonliterate, and semiliterate learners may very well have high oral skills in English. In addition, these learners may have had positive experiences with learning through oral ESL instruction. For example, they may be accustomed to learning through folktales, fables, and other stories that contain morals and teaching points (J. Crandall, personal communication, June 6, 2002). For these reasons, placing adult English language learners in classes according to both their L1 literacy skills and their oral English skills can facilitate their learning.

Preliterate, nonliterate, and semiliterate learners may have high oral skills in English.

Finally, some pre-, non-, and semiliterate learners may have learning disabilities that have not been diagnosed or addressed (Davidson & Strucker, 2003; Schwarz & Terrill, 2000). Teachers and program staff need to put in place procedures to identify and meet the needs of these learners. (See Schwarz & Terrill, 2000, for discussions of ways to identify and work with learners with learning disabilities.)

Learners who are literate in some writing system have the advantage of experience with deciphering and assigning meaning to print and using print to enhance their learning. Those who are *nonalphabet literate* read a language

that is written logographically, such as Chinese and Japanese. Other learners may be literate in a language that uses a non-Roman alphabet, such as Cyrillic or Thai. Both groups of learners have valuable reading skills in the first language that they may be able to transfer to second language reading, but they need practice processing the sound-to-symbol correspondences of written English (Strucker, 2002).

Learners from logographic languages who have learned to rely on visual clues may try to read in English by memorizing whole words. For example, a study of 16 Russian and 11 Japanese learners of English in an intensive English program (IEP) in a Canadian university and of 16 Russian learners of English in a university in Israel (Wade-Woolley, 1999) found that the Japanese learners, who use both a syllabary (kana) and a logographic (kanji) writing system, relied more on English word recognition than did the Russian learners, who use a phonologically-based alphabet. Because Japanese writing uses both a phonologically based syllabary and a system of pictographs, it is more likely that Japanese readers do not access words solely from phonology, but from their knowledge of orthography as well. Therefore, these learners are not used to focusing on phoneme-to-sound mapping in reading and are more likely to depend on sight recognition of letter sequences (Wade-Woolley, 1999). However, learning to read by sight recognition is a slow process, and learners who depend on it to the exclusion of phonological strategies will not become proficient readers (Birch, 2002). To become good readers in English, they need to develop an "alphabetic strategy"—that is, be able to process an alphabetic script (p. 33).

Learners who are literate in a language with a non-Roman alphabetic script have the advantage of an alphabetic literacy background, but they may struggle to find words in the dictionary and may need time to process written materials presented in class because the L1 orthography is different from that of English. For example, Nepali students, whose Sanskrit-derived letters descend below the lines of text, may at first attempt to direct their visual attention below the lines of English text where only the "tails" of some English letters (g, j, p, and y) are written (Strucker, 2002). In addition to directionality issues (their alphabet reads right to left; the Roman alphabet, left to right), Arabic students learning to read in English are likely to have problems with vowels, which are usually not written out in everyday Arabic

writings (Ryan & Meara, 1991). Strategies that these learners may have developed to read Arabic (e.g., proficient Arabic and Hebrew readers rely on context to determine which vowel sounds to assign to words) may not work as well in English reading and spelling, where vowels must be attended to (Birch, 2002).

Many adult ESL students are literate in a *Roman alphabetic language* (e.g., Spanish or Serbo Croatian). Like those literate in a non-Roman alphabetic script or in a logographic script, these learners have already developed reading skills and formed reading behaviors in their L1, and they know that written language can represent speech. Their educational background and literacy skills may be an important part of their self-image. They can study texts in English, take notes in ESL classes to learn new vocabulary or structures, and read outside of class. Yet, although the English alphabet will be more familiar to them than to others whose native language does not use the Roman alphabet, they still need to learn English sound-symbol correspondences before they are able to read well (Hilferty, 1996; Strucker, 2002). English does not have the same level of correspondence between sound and written form that occurs in some other alphabets, and learners who are used to reading a language such as Spanish in which there is a one-to-one correspondence between sounds and symbols will find the irregular sound-symbol correspondences in English troublesome. At the syllabic level, they will need to learn, for example, that the combination *ough* can be pronounced as in *tough* and *rough* or as in *bought* and *sought*. They also need to learn the many pronunciations of vowels, including their sounds in stressed and unstressed syllables. In fact, all English language learners, regardless of the type of L1 literacy in their background, need direct teaching in the English symbol system and English sound-symbol correspondences (Strucker, 2002).

While it is true that learners who are literate in another language are likely to have had more previous education that those who are not, one should not assume that preliterate, nonliterate, and semiliterate learners are incapable of abstract thought or logical reasoning. Furthermore, mere instruction in reading does not guarantee the development of those skills. As Scribner and Cole (1978) concluded from their study of the Vai people of West Africa who acquired literacy skills without education, literacy instruction does not automatically foster analytic logical reasoning.

FIGURE 2

Types of L1 Literacy and Effects on L2 Literacy Learning

L1 Literacy	Explanation	Special Considerations
Preliterate	L1 has no written form (e.g., many American indigenous, African, Australian, and Pacific languages).	Learners need exposure to the purposes and uses of literacy.
Nonliterate	Learners had no access to literacy instruction.	Learners may feel stigmatized.
Semiliterate	Learners had limited access to literacy instruction.	Learners may have had negative experiences with literacy learning.
Non alphabet literate	Learners are fully literate in a language written in a nonalphabetic script such as Chinese.	Learners need instruction in reading an alphabetic script and in the sound-syllable correspondences of English.
Non-Roman alphabet literate	Learners are literate in a language written in a non-Roman alphabet (e.g., Arabic, Greek, Korean, Russian, Thai).	Learners need instruction in the Roman alphabet in order to transfer their L1 literacy skills to English. Some (e.g., readers of Arabic) will need to learn to read from left to right.
Roman alphabet literate	Learners are fully literate in a language written in a Roman alphabetic script (e.g., French, German, Croatian, Spanish). They know to read from left to right and recognize letter shapes and fonts.	Learners need instruction in the specific letter-to-sound and sound-syllable correspondences of English.

It is generally accepted that level of literacy in the L1 affects the literacy skills that learners can transfer from L1 to L2 reading (Grabe & Stoller, 2002). Teachers need to know learners' L1 literacy levels in order to make informed decisions about the reading skills that they can help learners transfer to English and the reading strategies that they may need to teach in English. Even in cases in which there is relatively high L1 literacy, including knowledge about sound-symbol correspondence, certain skills may transfer and others may not unless there is direct instruction (Grabe & Stoller, 2002; Hilferty, 1996; Strucker, 2002). Hilferty (1996), for example, looked at the relationship of L2 decoding skills to other reading and language subskills in the reading performance of 42 Latino adult English language learners. An analysis of the Spanish and English language and reading subskills of the Spanish speakers showed that the ability to decode texts in English accounted for 15% of the subjects' reading comprehension. Yet these learners, all proficient readers in their native Spanish, were not receiving direct instruction in sound-symbol correspondence in English. From the results of this study, Hilferty posited that the relationship between ESL decoding and reading comprehension may well be reciprocal—that strengthening one promotes the development of the other. For that reason, she recommended instruction in English decoding even for proficient L1 readers.

Some research indicates that learners also need to reach a threshold (or level) of knowledge in the second language ("language-specific knowledge," Grabe & Stoller, 2002, p. 147) for positive language transfer to occur (Carrell, 1991; Carson, Carrell, Silberstein, & Kuehn, 1990). Positive language transfer occurs when learners are able to use in the second language the metacognitive knowledge, or knowledge of how language works, that they learned in the first language (Grabe & Stoller, 2002).

A study by Carrell (1991) seems to support this theory. Carrell looked at the reading skills in English and Spanish of 75 native English speakers learning Spanish at a university in the United States and 45 native Spanish speakers learning English at an intensive English program. She found that for the students learning English, first (Spanish) language reading ability was a more important predictor of second language reading skill. For the Spanish learners, second language proficiency level was a more important predictor. Carrell

suggests that because the English skills of the ESL students were higher than the Spanish skills of the native English speakers, the ESL students were better able to use reading strategies from their native Spanish in reading English. The study, however, was inconclusive because of its small size, differences in difficulty levels of the readings in English and Spanish, and differences in L1 and L2 language proficiency levels of the two groups. Furthermore, as Carrell admitted, part of the difference between the two groups could be attributed to the nature of second language learning (in the case of the English-language learners) and foreign language learning (in the case of the Spanish-language learners). More research is needed in this area.

In summary, it seems that learners who are highly literate in their L1 and who also have high levels of L2 proficiency will be more likely to transfer their L1 reading strategies to L2 reading; learners with low levels of L2 proficiency will need more help. When learners have reached the point that their metacognitive knowledge (from their L1) can support their L2 reading, they should be taught how to apply that knowledge to reading tasks. They can be asked to consider their purposes for reading, the ways they deal with unfamiliar vocabulary, and what they do when they don't understand a text, and they can be taught to apply these strategies in their L2 reading. Teachers should not assume that transfer of literacy skills will occur automatically. Direct instruction in effective reading strategies is needed at all literacy levels.

FIGURE 3

Consider L1 Literacy When

❖ **assigning learners to classes:** Non-literate learners may have difficulty using writing to reinforce what they learn orally. They may learn less rapidly than other learners.

❖ **implementing lesson plans:** Lessons that involve a lot of writing (e.g., on the chalkboard) will be less comprehensible for non-literate learners.

❖ **teaching literacy skills:** Learners can transfer the skills they have from L1 reading to L2 reading. However, the transfer may not always be automatic or positive. Some additional reading skills will have to be taught.

Educational Background

Learners' first language literacy is often linked to their educational experiences. Grabe and Stoller (2002) identify educational background as one of the distinguishing factors between L1 and L2 literacy learners, noting that L2 learners bring their expectations about literacy instruction from the L1 experience to the task of learning to read in the L2.

Learners with limited or no literacy in their first language have likely had little or no experience with formal education. These learners may be unaccustomed to sitting in desks for long periods of time, listening to a teacher, and interacting with other adults as fellow learners. Most of their educational experiences may have involved watching and learning from others. They often have not learned study skills common to students with formal education. Their learning will probably not, therefore, mirror that of learners who have had more experience with formal education (Hardman, 1999; Huntley, 1992; Klassen & Burnaby, 1993).

For these learners especially, literacy instruction is more likely to be successful when it is perceived as relevant to their lives and when they feel comfortable in the instructional setting. Some descriptive studies seem to support this (Hardman, 1999; Klassen & Burnaby, 1993; Mikulecky 1992). Hardman, for example, found that his semiliterate Cambodian adult students felt more comfortable in the classroom and had more positive attitudes about reading when they were allowed to bring their English-speaking children to class to work with them on reading tasks.

Learners who are highly literate in their first language are more likely to have had formal education in that language. However, while they have vast resources to draw on in learning to read in English, their prior educational experiences may differ from those they have in the United States (Constantino, 1995; Tse, 1996a, 1996b). They may expect a great deal of direct teaching and traditional approaches to learning, such as memorizing vocabulary lists and doing mechanical exercises, and they may tend to focus more on reading accuracy than on reading fluency. They may benefit from

extensive or pleasure reading in English to improve their reading fluency and to increase their exposure to English vocabulary (Coady, 1997; Tse, 1996a, 1996b). As with all adult learning, adults learning to read in English need to know why they are engaged in specific activities and what they can expect to learn from them (Florez & Burt, 2001).

Second Language Proficiency

Adult English language learners have varying levels of proficiency in English, which may influence their reading speed and comprehension (Tan, Moore, Dixon, & Nicholson, 1994). Several studies suggest that first language reading ability is a less significant predictor of second language reading ability than is second language proficiency, especially among lower proficiency learners (Alderson, 1984; Carrell, 1991; Tan et al., 1994). As a result, the positive influence of first language literacy, as discussed above, may be limited by proficiency in the second language.

The following sections discuss two influential components of second language proficiency—vocabulary knowledge and syntactic proficiency—and their role in learning to read.

Vocabulary Knowledge

One of the components of language proficiency that has been shown to have a strong effect on reading comprehension is vocabulary knowledge in the language being read (Coady, 1997; Coady, Mgoto, Hubbard, Graney, & Mokhtari, 1993). Other research suggests that vocabulary knowledge is gained through extensive and frequent reading (Cho & Krashen, 1994; Constantino, 1995; Joe, 1998). This dual interaction is the basis of the "beginner's paradox" (Coady, 1997, p. 229): Learners need to read to gain vocabulary knowledge, but they need vocabulary knowledge in order to read. (Reading specialists, including Grabe and Stoller, 2002, and Laufer, 1997, posit that a minimum of 3,000 words is needed to be able to read independently in the second language.)

FIGURE 4

Components of Vocabulary Knowledge

❖ **Breadth**—The number of words a learner knows or the number of content areas in which a learner is familiar with the vocabulary

❖ **Depth**—The amount of knowledge a learner has about individual words including
  • Phonology—Pronunciation
  • Orthography—Spelling
  • Morphology:
      Parts of speech (e.g., nouns and verbs)
      Prefixes (e.g., un-, re-) and suffixes (e.g., -able, -ing)
      How prefixes and suffixes change a word's meaning and use
  • Syntax—How the word is used in sentences
  • Connotations—Associated meanings
  • Polysemy—Multiple meanings
  • Register—What contexts the word is used in

Vocabulary knowledge is more than knowledge of the basic meanings of words. Comprehension is affected by both the breadth—or size—of a learner's vocabulary and the depth—or knowledge about the pronunciation and spelling, morphological properties, syntactic properties, connotations, polysemy (a word's multiple meanings), and register (context and appropriateness) (Qian, 1999). Similarly, intraword sensitivity, the reader's ability to use both phonological and morphological information to process and comprehend words, affects decoding at the word level (Koda, 1999). When investigating the effects of vocabulary knowledge on reading development and helping students augment their vocabulary, this detailed information about vocabulary knowledge is useful.

There is no consensus among researchers and practitioners on the effectiveness of word guessing and the use of bilingual dictionaries. Some advocate that bilingual dictionaries not be used in ESL reading classes because learners need to be able to determine word meaning from context. Others argue that in order to learn new words from a text, readers need to understand at least 95%-98% of the other words, and that readers cannot use contextual cues to guess a word's meaning unless they know the meanings of the cues (Coady, 1997; Coady et al., 1993; Laufer, 1997). Furthermore, when readers are asked to read texts that are too difficult, the result will be frustration

rather than comprehension. Simply guessing word meanings will not lead students to comprehension in many cases (Haynes, 1993; Laufer, 1997).

Even if readers understand all of the words used in a text, they might not understand them in a particular context. They also need to understand the cultural context in which a word appears (Rance-Roney, 1997). For example, the term *tree house* may have no meaning for a reader who knows what trees and houses are but has no experience with children making playhouses in trees, or of people treating trees as houses in some way. (How would one live in a palm tree?) In this and other cases, a monolingual English dictionary or even a bilingual dictionary could be useful. Learners should be encouraged first to use English dictionaries with examples and contextual descriptions, and then, if that fails, to look the word up in a bilingual dictionary. In some instances, using both dictionaries may be helpful, with the learner getting a sense of what the word literally and commonly means from the bilingual dictionary and how it is used in the text from the English dictionary.

Whatever strategy is used to improve vocabulary knowledge, teacher guidance throughout the reading process is important. In a small descriptive study, Cho and Krashen (1994) found increased learner gains in vocabulary with extensive reading. It is not clear, however, whether the gains would have been so dramatic if the learners had not discussed the books in their native Korean with the researcher/teacher. In another small descriptive study (Constantino, 1995), learners kept journals on what they read and responded to questions about readings. Research is needed on the types of guidance, discussion, and other help that are needed for reading-related learning to occur.

The need for increased vocabulary in the L2 can be addressed on several levels. First, direct vocabulary instruction can be part of the ESL literacy curriculum. It can improve reading comprehension, especially when it is given before the text is read (Coady, 1997). Computer-assisted vocabulary activities may be particularly helpful, as they allow individualized vocabulary learning (Brown, 1993; Coady et al., 1993; Thuy, 1992). Texts that repeat vocabulary are more likely to be comprehensible, especially to learners with lower English language proficiency (Cho & Krashen, 1994). A study of 85 learners in an IEP setting (Brown, 1993) suggests that vocabulary items are more likely to be learned when they are key to the comprehension of a text.

Syntactic Proficiency

While the relationship between syntactic proficiency and second language reading comprehension is less well studied than that of vocabulary knowledge, there is a definite relationship between understanding the structures of a language and understanding a written text. Students with greater syntactic knowledge are better able to process text at the sentence level and to use this knowledge to make informed decisions about the meaning of a passage (Goldberg, 1997). Students should be taught shown how to connect form with meaning and to identify cues that signal that connection (for example, use of -ed to form an adjective, as in "the enraged animal").

Grammar learning should be integrated with reading instruction to reinforce grammar learning itself, to increase reading comprehension, and to provide a context for the examination of grammatical structures. Grammar in written text has the advantage of being frozen on the page so that it can be examined and analyzed, unlike grammar occurring in conversation that flies by quickly or is hard to hear in the flow of speech. For example, the past tense marker *–ed* is hard to hear when a /t/ sound follows it (e.g., *I walked to school*). To help learners focus on grammatical structures in texts, teachers can point out specific structures in a reading passage, choose passages that highlight the grammatical structures that students are learning, and have students find and mark specific grammatical structures.

Learner Goals

Adults learning English have varying needs for literacy. Some of the most common are to succeed at work, participate in their children's education, gain U.S. citizenship, participate in community activities in English, and pursue further education (Marshall, 2002). Learners' needs for literacy development are referred to as literacy goals or literacy purposes.

Some learners may focus on improving their functional literacy in order to advance in the workplace (Mikulecky, 1992). Many cannot advance in their jobs or receive the job training they need until they have achieved a functional level of English literacy. In many cases, a GED (General Educational Development) certificate may be required for job promotion (Mikulecky, 1992; Strucker, 1997).

FIGURE 5

Uses for Literacy

- ❖ Increased job success
- ❖ Involvement in children's education
- ❖ Participation in the community
- ❖ Continued education
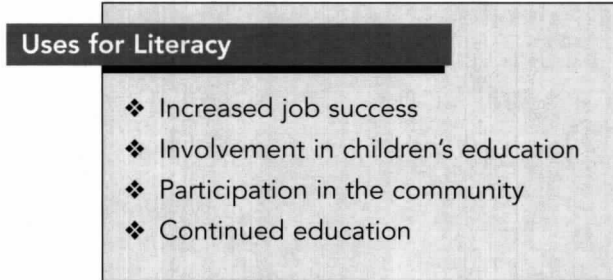
Other learners may want to improve their literacy skills to help their children in school (Shanahan, Mulhern, & Rodriguez-Brown, 1995). The belief that parents' literacy is a predictor of children's eventual literacy attainment is one of the reasons behind the support for family literacy in U.S. Department of Education legislation (National Center for ESL Literacy Education, 2002). Since much of school-related communication is conducted in written English, limited English literacy may limit parents' involvement in their children's education and their communication with teachers, administrators, and counselors. Furthermore, adults who are not literate in English will be unable to share English literacy with their children or help them learn English vocabulary.

Other common literacy goals for adult ESL students center around community participation. These goals include achieving the skills to move successfully through the process of becoming a U.S. citizen, to handle financial transactions, and to keep informed about developments in the community (Klassen & Burnaby, 1993; Strucker, 1997). Adult ESL students who wish to gain citizenship in the United States need to pass a written test on U.S. government and history. Likewise, at every step in the residency and citizenship process, learners need to have the literacy skills to fill out forms. Opportunities for involvement in community activities are usually announced through written communication, most often in English. Adults learning English need to be able to read in English to integrate into and take an active role in shaping their communities.

In addition to integrating into the English-speaking community, adults who are literate in English can serve as valuable advocates for their first language community to the larger English-speaking community (Auerbach, 1992). Most advocacy activities in the United States that reach decision makers are conducted in English.

Finally, many learners want to improve their literacy skills to increase their opportunities to continue their education (Rance-Roney, 1995). Some need

to obtain a high school equivalency degree; others are seeking certification in English of degrees and skills they have in their native language. Still others need English reading skills to pass standardized tests such as the Test of English as a Foreign Language (TOEFL) and enroll in institutions of higher learning.

It seems likely that using materials related to the specific goals of learners will improve both the acquisition of literacy skills related to those goals and language acquisition in general. Indeed, it has long been an assumption in adult education in general and adult ESL education in particular that learners learn better when the material they study is relevant to their real-life needs and goals (Auerbach, 1992; Knowles, 1984). Unfortunately, there is little research on this issue. In his study of English language learners in a workplace literacy program, Mikulecky (1992) found that providing job-related literacy instruction at the workplace improved both acquisition of literacy skills related to specific jobs and transfer of the reading skills acquired to other situations. Generalizing from this study, materials used in instruction should match the goals of the learner: School-related instruction and materials should be used with parents in family literacy programs, workplace instruction and materials should be used with workers, and civics-focused instruction and materials should be used in citizenship classes. The challenge, of course, is addressing learners' interests when a variety of goals for developing literacy are represented in one class or program. Further research is needed in this area.

Whatever the reading goals of learners, teachers should help them enjoy and take responsibility for their own learning. This can be done by encouraging learners to seek opportunities for literacy activities inside and outside of class, and to take note of their uses for literacy in their daily lives, including pleasure reading. Having learners identify their specific literacy goals maintains their interest and motivation (Comings & Cuban, 2000; Comings, Parella, & Soricone, 2000).

The Process of Learning to Read in a Second Language

The question of what is involved in the process of learning to read has intrigued cognitive scientists and psychologists over the years. Except for functional Magnetic Resonance Imaging (fMRI) studies[2] (e.g., Lyon & Krasnegor, 1996; Lyon & Rumsey, 1996), which are in their infancy, we do not actually see evidence of the reading process as it occurs. Researchers have used evidence from analyses of oral reading, from eye-movement studies, and from learners' responses on post-reading activities to infer the process that occurs in the mind as the reader takes in written information.

Teachers need to understand the reading process in order to help adult English learners develop reading skills and strategies, to evaluate the effectiveness of pedagogical techniques designed to build reading proficiency, to implement those techniques in their instruction, and to understand and help learners who have reading difficulties.

This section summarizes models (or frameworks) that have attempted to describe the reading process. It is followed by a discussion of the internal models that learners with prior literacy experiences may bring to the process. It then describes the specific skills involved in reading. Theories and research involving adult English learners in these areas are described first, followed by implications for practice.

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[2] Functional magnetic resonance imaging (fMRI) uses magnetic resonance technology to visualize the way that the brain functions. It shows changes in the chemical composition of areas of the brain to find out what the brain is doing when individuals perform specific tasks such as reading a text. (See, for example, Gregg, n.d., for discussion.)

Theories and Research

Models of Reading

Researchers have attempted to describe the reading process by using models. This section discusses some of the more influential ones. These models describe the reading process in general and are not specific to the process of how adults learn to read in a second language. However, understanding the fundamental nature of the reading process is necessary to understanding how reading in English is learned.

Bottom-up models. Bottom-up models focus on how readers extract information from texts—from the page to the mind (See, for example, Segalowitz, Poulsen, & Komoda, 1991.) These models describe reading as a process of gathering visual information from the text and synthesizing that information through different systems in the brain that identify the letters, map them onto words (word recognition), and analyze words in clauses and sentences (syntactic parsing). Thus, the reader builds meaning by first focusing on the smallest units of language, letters and sounds, and then moving to larger units of language (syllables, words, phrases, and sentences). In short, as Stanovich & Stanovich (1999) argue, the ability to decode text by knowing how sound is represented in print is critical for success in learning to read.

Top-down models. Some researchers have argued that bottom-up models do not account for observed reading phenomena. (See, for example, Coady, 1997; Eskey, 1997; Goodman, 1988; Haynes, 1993.) For example, researchers conducting miscue analysis studies (analysis of the mistakes readers make in oral reading) concluded that readers do not passively take in the information from the text, but rather are actively involved in predicting meaning based on both cues from the text (inferencing) and their background knowledge.

Interactive models. Bottom-up models describe the reader as arriving at meaning by moving from letters to words to phrases and sentences and arriving at meaning. Top-down models describe the reader as deriving meaning primarily from predictions about the text and background knowledge. Interactive models posit that both processes work together: Word recogni-

tion—the bottom-up ability to turn letters into sounds—is informed by the top-down skills of applying background knowledge, inferencing, and predicting (See Grabe & Stoller, 2002, pp. 31-34, for discussion.) Grabe and Stoller argue that "modified interactive models" are necessary to understand reading comprehension. These models will highlight the number of processes that take place as the reader decodes and comprehends text. Many of the processes that fluent readers use are bottom up and automatic: Word recognition involves getting information from the letters, from phonology, and from letter shapes. Even using grammatical knowledge can be almost automatic. However when automatic bottom up processes are not enough to comprehend what it being read, top down processes such as getting meaning from context and using syntax cues can be activated. For L2 readers, who are seldom fluent and frequently do need to activate top-down processes, the modified interactive model seems to be quite viable.

Learners' internal models. Adult English language learners who are literate or who have been exposed to literacy may approach literacy learning with their own, often subconscious, models of the reading process, which may affect their reading behaviors. Learners who have internalized bottom-up, decoding-based processes may focus on perfecting their decoding skills, even when this makes a focus on meaning difficult (Devine, 1988; Wilson, 1983). Other readers, with a meaning-based model of the reading process, may focus on constructing meaning from texts. Devine (1988) suggests that some readers may rely so heavily on their background knowledge and their predictions about a text that they ignore text cues and misinterpret the message of the text.

Reading Skills

Research has demonstrated the importance of the following skills in reading development: *phonological processing, vocabulary recognition, syntactic processing,* and *schema activating* (See, for example, Coady et al., 1993; Jones, 1996; Koda, 1999; McLeod & McLaughlin, 1986; Strucker, 1997, 2002; Tan et al., 1994.)

Phonological processing. Phonological processing is the act of interpreting graphemes (letters) as sounds and combining letter strings correctly into pronounceable syllables and words. It includes phonemic awareness (aware-

ness of individual speech sounds or phonemes and the ways they are represented in print), and phonological awareness (awareness of the way that language is represented in print that includes phonemes, words, syllables, and word breaks) (Adams, 1990; Snow, Burns, & Griffin, 1998). There is some indication that learners with previous literacy in an alphabetic language transfer phonological decoding skills from that language to English reading (Koda, 1999). Koda's study of 20 native Korean speakers, 20 native Chinese speakers, and 6 native English speakers seems to support this claim. The Korean students, whose native language is written in an alphabetic script, seemed to be using within-word processing skills to read in English more frequently than the Chinese students, whose language script is non-alphabetic. Koda suggests that the Chinese students probably relied on L1 whole-word processing strategies to read in English, while the Koreans were looking at syllabic segments as they do when they read Korean.

Proponents of top-down reading models have generally dismissed phonological processing (mapping letters to sounds) as primary in reading instruction, assuming that it develops naturally as students are exposed to large amounts of written text. However, there is evidence indicating that even advanced English learners whose native language is written with the Roman alphabet can have difficulty with phonological processing in English and need to be taught to decode – to match letters and sounds (Hilferty, 1996; Jones, 1996; Strucker, 2002).

Vocabulary recognition. The importance of vocabulary in second language reading development has been studied extensively (See, for example, Coady et al., 1993; Haynes, 1993; Joe, 1998; Qian, 1999; Tan et al., 1994; Thuy, 1992). When readers are able to comprehend vocabulary words quickly, they are better able to understand the meaning of a sentence or passage. When readers struggle with the meanings of individual vocabulary words, they will have difficulties connecting the meanings of words in a sentence or passage (McLeod & McLaughlin, 1986). Learners in this situation may decode reasonably well, but they may do so with limited comprehension.

Some studies indicate that training second language readers on accurate and rapid vocabulary recognition can increase their reading comprehension

(Coady et al., 1993; Tan et al., 1994). Results of these studies show (not surprisingly) that vocabulary learning must be addressed in second language literacy instruction.

Adams (1990) states that the skill of word reading includes processing written words, their meanings, and their pronunciations. "Perhaps the most important tenet ... is that these three types of information are not processed independently of one another. Skillful reading is the product of the coordinated and highly interactive processing of all three" (p. 107).

Syntactic processing. In order to comprehend a written text, learners must recognize the grammatical relationships between words. Syntactic processing involves using word order (e.g., subject followed by verb) and morphological cues (e.g., past tense and passive voice marking) to understand the meaning of a phrase or sentence as a whole. As with vocabulary recognition, increased ease with syntactic processing may increase comprehension of a passage, because it frees up mental space for the processing of larger units in the passage (McLeod & McLaughlin, 1986). Faulty syntactic processing can derail comprehension. For example, when reading the sentence *The man was bit by the dog,* an English language learner who does not notice the passive voice may misinterpret the sentence to mean that the man bit the dog. This mistake could interfere with comprehension of the passage.

Schema activating. Part of reading comprehension involves filling in what is not stated explicitly in the text. This sort of reading between the lines often involves using schema, background knowledge that the reader has of the world (Adams & Collins, 1985). Textual features activate schema. For example, if the reader encounters the words *runners, numbers, water station,* and *finish line* in a text, the schema of race may be activated, even if the word race is never used in the passage. Several small studies (e.g., Chervenick, 1992; Coady, 1997; Goldberg, 1997; Hudson, 1982) suggest that activating the correct schema can aid in reading comprehension.

Schema are related to cultural knowledge. English learners' understanding of a text may be affected by their own culturally based schema. For example, a text might describe children climbing a tree without further description of the

nature of the tree. While American readers are likely to interpret this as a tree they are familiar with, such as a maple or an elm, Polynesian readers might interpret it as a palm tree. They would then have difficulty processing descriptions of children swinging from the branches, as this does not match their "tree" schema.

Implications for Practice

Models of Reading

The goal of reading instruction is to help learners use text decoding skills and background knowledge to comprehend written language. With adults learning English, phonological processing and orthographic decoding skills should be taught directly. Learners with limited literacy in their native language or with non-Roman alphabetic literacy may need more practice with letter recognition and phonological processing than those with well-developed Roman alphabetic literacy. However, learners with Roman alphabetic literacy also need direct instruction in and practice with English phonology and orthography (Hilferty, 1996; Strucker, 2002), which might include phonics-based activities (Jones, 1996).

At the same time, adult English language learners are helped in learning to read when they have opportunities to apply their knowledge of the language they are reading and of the world to understand different types of written texts. Beginning-level learners should begin by reading texts that are relevant to their experiences or similar to each other in topic (Goldberg, 1997). They should preview texts by discussing vocabulary in the texts before reading, reading the headings first, and looking at pictures and graphics related to the texts (Goldberg, 1997; Pakenham, 1983).

English language learners' first language literacy should be considered when they are assigned to classes, when ESL lesson plans are designed and implemented, and when learners participate in literacy development activities. In beginning-level classes, some programs separate literacy learners from those who are literate in their first language because these two groups of learners are likely to progress at very different rates.

Learners' Internal Reading Models

Adult English learners should become aware of strategies they can use to decode English words, syntax, and text structures. Teachers who are aware of the best strategies for individual learners can help learners apply them. Readers who focus on accurate reading to the detriment of comprehension can be given comprehension questions as part of pre-reading activities to help them focus on understanding the important meanings in the texts they read. Learners who do not pay sufficient attention to accuracy in reading can engage in activities that encourage accurate letter and word discrimination, such as pre-reading exercises in which they orally read lists of words taken from the text and segment them into syllables and sounds. Mixing activities that draw attention to accurate reading with those that focus on meaning in texts (e.g., reading Dear Abby letters and asking learners to give their own advice to the letter writers) can help learners strengthen their reading skills.

Phonological Processing

Phonological processing skills are among the primary reading skill components that differentiate native and nonnative English speakers learning to read (Koda, 1999). Especially when teaching non-literate and non-Roman alphabet literate learners, phonological decoding skills are a necessary part of instruction. Jones (1996), Koda (1999), and Strucker (2002) maintain that teaching adult ESL literacy students the letter-sound correspondences in the English writing system through phonics instruction should improve their reading.

FIGURE 6

Phonology Teaching Suggestions

- ❖ Matching letters to sounds
- ❖ Matching morphemes, meanings, and pronunciations
- ❖ Oral reading
- ❖ Choral reading

In this instruction, both the phonemic relationships and morphophonemic relationships in the English writing system should be taught, as knowledge about them increases understanding of the regularities in written English. (Phonemic relationships are the connections between sounds and the letters that represent them, while morphophonemic relationships are connections between morphemes—units that signal meaning, such as past tense

marking—and letters.) For example, teachers can point out that while the regular past tense has different pronunciations depending on the phonological structure of the verb, past tense morphology for regular English verbs has only one written form, -*ed* (e.g., *jump**ed**, jamm**ed**, land**ed***).

Vocabulary Recognition

Vocabulary recognition can be aided by previewing text-specific vocabulary before a text is read and learning high-frequency vocabulary (Coady et al., 1993). While traditional vocabulary lists can be intimidating and boring, more interactive vocabulary instruction, including the use of technology to provide practice through CD-ROM software, can be helpful for vocabulary development. The use of computer technology in this way can also serve to motivate learners, as they may view the practice as a chance to gain both language and computer skills (Thuy, 1992).

Second language learners may want to use bilingual dictionaries. Rather than being adamant against their use, teachers can point out the advantages and disadvantages of using them: On the one hand, they are quick and easy to use; on the other hand, they do not always show the nuances of a word, and the translation may not be as correct or as complete as learners need.

FIGURE 7

Vocabulary Teaching Suggestions

- ❖ Preview key vocabulary in a reading passage.
- ❖ Teach high-frequency vocabulary.
- ❖ Help learners use English-to-English dictionaries effectively.
- ❖ Use glosses for vocabulary that is beyond learners' level.

English—English dictionaries are another option. Those developed specifically for learner use may be the most useful. For example, *Longman Basic Dictionary of American English* (1999) includes color drawings of animals, articles of clothing, and verbs of movement—items and concepts that are most clearly defined through direct translation or a picture. Other useful features of learner dictionaries include the presentation of vocabulary items in sentences; lists and conjugations of common irregular verbs in English; and notes on usage of English articles and prepositions.

Another way to facilitate vocabulary recognition is through the use of glosses. Vocabulary items are highlighted in the text, and synonyms for those words are given elsewhere on the page or through a hyperlink in electronic texts.

Syntactic Processing

As with vocabulary recognition, instruction that draws a learner's attention to syntactic forms that appear in a reading text may help to improve comprehension. Cloze exercises, in which specific words are left out of the text, can help learners pay attention to the parts of speech in context. These exercises can be done initially with the whole class to reduce learner frustration, then in small groups, and then individually. When discussing unfamiliar words in a text or words that play specific roles (e.g., transitional words such as however and nevertheless that occur more often in writing than in speech), the teacher can ask learners to identify the parts of speech of the words and their grammatical roles. Learners might also write their own sentences using the words in question.

FIGURE 8

Syntax Teaching Suggestions

- ❖ Use cloze exercises.
- ❖ Identify parts of speech and their roles.
- ❖ Generate sentences using specific words and grammatical forms.

Schema Activating

Second language reading will be more successful when schema are familiar to the readers. Background information on the topic, provided before reading begins, will help learners build schema and increase the knowledge, cultural and otherwise, needed to understand the text. Knowledge about different text structures and about what to expect from different structures should also facilitate comprehension (Carrell, 1992). With less proficient readers especially, readings about culturally familiar topics should be selected (Eskey, 1997). It is also helpful to preview the topics of the reading before reading begins (Goldberg, 1997).

FIGURE 9

Teaching Suggestions to Build Schema

❖ Build on ideas and concepts from learners' cultures where possible.

❖ For unfamiliar themes, use visual aids and realia (physical objects) to help learners build new schema.

❖ Preview unfamiliar ideas, actions, and settings.

❖ Preview titles, pictures, graphics, text structure, and discourse markers.

Conclusion

The purpose for reading influences which skills a reader uses. Good readers use both information in the text and their own knowledge to interpret texts, and they adjust their approach to the text according to their reasons for reading it (Aebersold & Field, 1997; Anderson, 1999). Certain situations call for careful, accurate reading (e.g., a textbook, directions for assembling a product, a bus schedule, and a doctor's prescription), while others may call for faster, meaning-centered reading (e.g., menus and magazines read for pleasure). While skill practice helps students build specific reading skills, learners must have opportunities to use the skills they have learned in reading actual texts for different purposes.

Reading to Learn

Second language development facilitates reading in the second language, but reading in the second language can also facilitate second language development. In other words, learners can both learn to read and read to learn. Because of their family, workplace, and community responsibilities, adults may need to read to acquire second language skills.

Reading is essentially the process of getting information from written language. While the concept of reading to learn in content areas is familiar (e.g., if we want to learn about gardening, we may read books, articles, and Web sites about gardening), we are less familiar with the concept of reading to gain knowledge about language. However, the act of reading itself exposes us to language that we process as we seek to gain information that is important and meaningful (Goodman, 1988). Some second language acquisition theoreticians have asserted that it is under these conditions that language learning can occur (Krashen & Terrell, 1983). Therefore, at the same time that ESL students learn about gardening, dinosaurs, or U.S. holidays from reading in English, they are also learning English.

Theory and Research

The notion of reading to learn first received attention in the ESL field in the late 1970s and early 1980s with the writings of Stephen Krashen. (See, for example, Krashen, 1976, 1977; Krashen & Terrell, 1983.) Researchers focusing on this issue with adult English language learners include, among others, Brown (1993); Chervenick (1992); Joe (1998); Lantigne & Schwartzer

(1997); Mikulecky (1992); Perfetti, Britt, & Georgi (1995); Petrimoulx (1988); and Tse (1996a, 1996b). Their hypothesis is that second language learners need extensive access to language that they can understand but is more difficult for them to produce. In other words, they need *comprehensible input* (Krashen & Terrell, 1983). Reading texts can provide one source of comprehensible input. Therefore, researchers have hypothesized that reading texts that are comprehensible can have a positive impact on second language acquisition. The available research is summarized below. (See also Grabe & Stoller, 2002, pp. 115-117, for a discussion.) Work in this area is limited and preliminary, however. Research needs to be conducted, especially with adult learners reading English as a second language.

Some of the benefits for second language acquisition of reading in the second language have been noted in studies that contrast the learning experiences of literate and nonliterate second language learners. Learners who have literacy skills are able to use both oral and written input to reinforce learning, which increases their exposure to words and structures. Literate learners are able to take notes in class and review them later, which aids in the retention of what they have studied (Carroll, 1999), and they are able to use dictionaries for learning new words that they encounter in written form (Hardman, 1999). In addition, they often have prior school experiences that help them to handle the culture of schooling. All of these factors can lead to more rapid language learning by literate learners.

Learners who have literacy skills are able to use both oral and written input to reinforce learning, which increases their exposure to words and structures.

Small descriptive studies (Cho & Krashen, 1994; Constantino, 1995) conducted among adult ESL students have investigated the effect of extensive or sustained reading on vocabulary acquisition. Generally, these studies suggest that when students are engaged in reading that is comprehensible and interesting to them, they learn passive vocabulary (vocabulary that they can understand but cannot necessarily produce). These studies highlight the importance of pleasure reading, because learners who read for pleasure are more likely to read extensively. They also suggest that narrow (or intensive) reading (in which learners read extensively on a specific topic or text type, for example, in connection with their academic or employment training) promotes

FIGURE 10

Benefits of Extensive Reading

- ❖ Vocabulary learning
- ❖ Better predicting skills
- ❖ Better use of context for vocabulary understanding
- ❖ Increased focus on reading for meaning
- ❖ Increased enjoyment of reading
- ❖ Improved understanding of L2 oral language
- ❖ Improved writing

vocabulary learning. Narrow reading increases the likelihood that new words will be repeated, which may also increase the likelihood that those words will be learned.

Learners who engage in extensive reading experience changes in their reading behaviors. They become better able to determine which words are and are not central to comprehension of a text and, therefore, to judge which words to skip and which ones to look up (Tse, 1996a). They also become able to focus on understanding the meaning of the text and not get caught up in new words that cause them to miss the main ideas (Tse, 1996a). A few small practitioner research studies found that learners engaged in extensive reading were more likely to report enjoying reading and feeling comfortable with reading new texts (Constantino, 1995; Tse, 1996a, 1996b). However, virtually all studies of extensive reading have been conducted with learners reading fictional or narrative style writings. It is not clear how extensive reading of these types of texts affects technical or academic reading, and how extensive reading of technical texts affects vocabulary acquisition. Studies that look at these issues need to be carried out before we can claim transfer from one genre and one activity to another.

Studies also indicate that second language reading can affect oral language production. Readers engaged in extensive reading of texts that include dialogues approximating informal speech have reported improved second language oral proficiency; they feel that they are more familiar with common idioms and collocations and better able to manage turn taking and other pragmatic aspects of conversation (Cho & Krashen, 1994). Some researchers hypothesize that exposure to written texts that are similar to spoken English (e.g., plays and comics) helps learners to strengthen the connections between spoken and written language and thus supports both literacy and oral language development (Carroll, 1999).

Similarly, practice in second language reading seems to help develop second language writing. Some research points to a strong relationship between second language reading ability and writing ability (Carson, Carrell, Silberstein, & Kuehn, 1990). Extensive second language reading may help learners develop better command of grammatical and textual features of written language, which they can then, at least to some extent, employ in their own writing.

Implications for Practice

Reading can build second language vocabulary, conversational proficiency, and writing ability as well as reading proficiency. Teachers need to carefully select texts for learners or assist them in choosing their own texts at appropriate levels of reading difficulty, focusing on the level of decoding, vocabulary knowledge, and cultural or background knowledge needed to handle the text. They also need to develop classroom activities that help learners understand and work with the texts.

Teachers should help students identify the topics they are interested in learning and reading about and the resources on that topic that they are likely to understand. Students from different cultures and socioeconomic groups and of different ages are likely to find different topics interesting. For example, younger students might be more interested in reading about fashion, movies, or music. Students interested in higher education in English-speaking countries might be more interested in particular curricular areas such as chemistry or computers. Students in workplace literacy programs might be interested in reading articles associated with their jobs.

When students in a class have different interests, teachers can try to find texts that are of general interest or try to include at least one text in each student's interest areas. With the latter choice, students can take the role of expert in discussions of readings about topics that interest them. For extensive (and pleasure) reading done outside of class, students should have more liberty to explore different topics and text types that interest them.

Summary of Findings and Implications for Practice and Research

Teaching literacy to adults learning English is a complex and multifaceted process. Teachers need to be aware of several factors that influence adults' reading development in English as a second language and take these factors into consideration when designing and implementing programs, curricula, and instruction. These include personal, reading process, and language development factors. In addition, more research needs to be carried out on the reading development patterns of this population. This section reviews these critical factors, describes implications for practice, and outlines areas in which research needs to be carried out.

Personal Factors

Personal factors that influence second language reading development include learners' linguistic and educational backgrounds; reasons and motivations for learning to read; ages; instructional, living, and working environments; and learning abilities or disabilities. The most important factors—educational background, first language literacy, second language and literacy, and goals for learning English—are summarized here.

Educational Background and First Language Literacy

Adult learners' previous experiences with education and literacy affect the ways that they approach the task of acquiring literacy in English and the ways that they process English texts. Both native language and English language lit-

eracy must be considered in placing adult learners and planning instruction for them. As previously described, learning patterns differ according to whether a learner is preliterate, nonliterate, semiliterate, or literate in a non-alphabetic script or in a Roman or non-Roman alphabetic script. They also differ according to whether or not the learner has been exposed to formal education.

Second Language Proficiency and Literacy

Oral language proficiency in English also plays an important role in learning to read in English. Helping English language learners to develop their English vocabulary, knowledge of English structures, and understanding of English phonology and discourse structure can all have a positive impact on their reading ability. For some learners, oral English proficiency may be a more important predictor of reading comprehension and retention than first language literacy.

While learning to read in English involves multiple skills and is difficult to teach and often discouraging to learn (primarily for those who have little or no L1 literacy), research suggests that there are advantages for learners who engage in extensive reading guided by activities that focus their attention on the meaning of what they are reading as well as on vocabulary and syntactic forms. These advantages can include increased vocabulary, structural awareness, and comfort with reading in English.

Purposes for Literacy Learning

Teachers need to be aware of the reasons that learners want to develop their English literacy. These may include the desire to get, maintain, or advance in a job; pursue further education; communicate with family and community members; participate in or lead community activities; communicate with professionals at their children's schools; and pass a test (such as the citizenship test, the Test of English as a Foreign Language [TOEFL], or the GED).

The Reading Process

In addition to learner factors, teachers need to have an understanding of the reading process and the development of reading skills. The reading process is a complex cognitive activity, in which the information from the printed page is critical and supplemented by the reader's own information and beliefs. Instruction in decoding only is insufficient, as is instruction based solely on comprehending meaning. Teachers should help learners understand the reading process and develop the skills that they need.

Implications for Practice

While there is little research on the patterns of literacy development of adults learning English, there is even less on best practices for teaching literacy to this population. Many published articles report on techniques used to develop reading in adult ESL settings, yet very few are based on careful studies carried out in a controlled fashion. The studies that have been done indicate that L2 oral proficiency and L1 literacy have an impact on L2 literacy development and that literacy skills transfer from L1 to L2.

The research suggests that the following instructional strategies will promote literacy development:

- More instructional time spent on reading.

- Oral reading in addition to silent reading, especially at the beginning levels. With oral reading, adults can get feedback on their decoding and pronunciation and can practice English syntactic patterns, inflection, and prosody.

- Word decoding instruction and practice for all learners, even those whose languages use a Roman alphabetic writing system. Such practice may improve pronunciation as well.

- Explicit vocabulary teaching, especially for intermediate and advanced level learners. Instruction should seek to develop both the depth and breadth of vocabulary.

- Preteaching of vocabulary, especially for beginning and intermediate learners. For advanced learners, vocabulary instruction may not always have to precede reading. Some vocabulary instruction should be included in the class, however.

- Explicit instruction in morphological (word endings), grammatical, and text structures.

- Explicit instruction in the use of strategies that will enhance comprehension. For beginning English learners, pictures and graphics that accompany texts and texts with repeated and predictable vocabulary and grammatical structures are useful. For all learners, preview of titles, headings, pictures, and graphics to enhance comprehension of vocabulary and content are useful.

- Use of reading materials at or slightly above the level of the readers' second language proficiency. Learners should not be asked to read texts that are far beyond their vocabulary level.

- Use of reading materials related to the goals of learners. This will improve their skills related to those goals and may also transfer to general reading ability.

Areas for Further Research

This paper illuminates the paucity of research on adult nonnative English speakers learning to read. Most literacy research—involving reading in both the first and the second language—has been conducted with children. Findings from studies of literacy development among children are very helpful for understanding many aspects of the reading process, but they should not be applied to adults without careful thought and consideration of the background knowledge, skills, and goals for reading that adults bring to the experience. More research needs to be conducted with adult English language learners, especially those studying in adult education programs.

Areas in which further research is needed include the following:

- What occurs in the brain when adults are reading in a second language? For example, in what parts of the brain do different L2 reading activities take place?

- What is the role of native language oral proficiency and literacy for adults learning to read in English? For what learners? At what stages in their development?

- What are the threshold levels of native language literacy for reading skills to transfer from the primary language (L1) to the second language (L2)? For what learners? At what stages in their development?

- How does extensive reading in English facilitate development of English reading ability and oral language proficiency? What types of texts are most useful? For what learners? At what points in their development? When reading for what purposes? What types of teacher guidance and intervention are most effective?

- How do length, types, and intensity of instruction affect learners' reading development over time?

- What length of time is needed for learners to reach different levels of English reading ability? What levels do learners need to reach to be successful in functional L2 literacy, GED classes and tests, and postsecondary education?

- To what extent and in what ways can reading programs and strategies developed for children (e.g., explicit, systematic phonics instruction) be used effectively with adults?

- To what extent and in what ways can reading programs developed for native English speakers (e.g., phonetically based programs) be used effectively with adults learning English?

- In what ways can technology applications assist in promoting reading development?

Research on effective literacy teaching practices is a particularly fertile area for practitioners to become involved in, because existing classes can provide settings for careful investigations. If staff from several programs or several teachers from within a program work together and in collaboration with researchers, comparative studies of program designs, instructional strategies, and specific interventions can be carried out. New understandings of many of the topics discussed here could be reached through careful qualitative and quantitative research and analysis.

Those interested in conducting research or in reviewing research that has been done are encouraged to consult the annotated bibliography of research upon which this paper is based (Adams & Burt, 2002) for specific studies that could be replicated or extended and for areas in which further study is needed. See also Grabe & Stoller (2002) for descriptions of action research projects that teachers might carry out.

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Reading and Adult English Language Learners

A Review of the Research

Learning to read in English is difficult for adult English language learners. Teachers know that their learners come from diverse backgrounds, have different experiences with literacy in their first languages, and have various reasons for learning English. They also know that there is no simple recipe to help their students become proficient readers.

What does the research say? How does it inform instructional practice?

This book summarizes the research on adult English language learners reading English, offers ESL teachers and administrators suggestions for instruction, and points to areas where further research is needed.