The Adult Reading Components Study (ARCS)

Findings from Research

Many adult basic education students below the General Educational Development (GED) level have reading skills similar to those of children at risk for reading difficulty. Phonemic awareness problems that existed in study participants' childhoods persisted into adulthood. Their reading comprehension and reading rate (fluency) seem to have stalled at middle school levels. Because of this, their background knowledge and vocabulary also topped off at that level.

Adults who test with the same grade-equivalency levels (silent reading comprehension levels) can have very different reading skill profiles in regard to vocabulary, fluency, and decoding. A reader's profile is a picture of a reader's abilities in each of the component skills. The component skills include **vocabulary, fluency, decoding,** and **comprehension**. A profile illustrates a student's pattern of scores on skills that compose reading ability.

ARCS researchers identified eleven clusters of students with similar reading profiles, grouped as (1) GED/Pre-GED, (2) Intermediate, and (3) Low-level/beginning. Different profiles illustrate different instructional needs. For example, two readers may test at the same comprehension level, say, grade-level-equivalent 6. However, one reader may score low on vocabulary knowledge but high on decoding ability, while the other may score high on vocabulary knowledge but

> **About the Adult Reading Components Study (ARCS)**
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> Researchers, led by John Strucker of Harvard Graduate School of Education, designed the ARCS to describe the various types of readers enrolled in U.S. adult basic education (ABE) programs.
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> Researchers randomly selected, interviewed, and assessed 955 students (676 ABE and 279 ESOL) from adult education programs in Connecticut, Massachusetts, New Hampshire, New York, Rhode Island, Tennessee, and Texas.
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> Students took a battery of reading and language assessments to determine their instructional needs, including assessments of their phonological awareness, rapid naming of letters, word recognition, oral reading, spelling, vocabulary, and background knowledge. The list of scores became each individual's "reading profile" of strengths and instructional needs. Researchers also interviewed students about their educational history and reading habits.

low on fluency. A reader's profile tells a teacher much more about that reader's skills and needs than just a comprehension score, since a reader may need direct instruction in one of the component skills in order to eventually improve his or her comprehension skills.

Specific Implications of the ARCS Study

Implication: Organize intake procedures to identify students' reading profiles and arrange classroom structures to teach accordingly.

What the research says: Adult students do not all share the same reading "profile." Adult students whose reading comprehension skills place them at the same grade-equivalency-level score often have entirely different "reading profiles"; their instructional needs vary according to different level skills in vocabulary, fluency, and decoding. Identifying those component needs and skills at intake will determine the type of reading instruction

that may help them make faster reading gains. The GED group needs help in passing the test and building skills (in preparation for postsecondary education). Beginning students, because their phonemic awareness and word recognition skills are poor, need direct, systematic, sequential instruction in these skills. The intermediate group, which comprises the largest percentage of adult students, need to increase fluency and strengthen background knowledge and vocabulary, and may also need to strengthen word recognition skills.

Therefore, you should …

> … assess at intake every student's strengths and needs in the four component skills, not just in comprehension, and help teachers organize their classrooms to facilitate reading instruction based on similar reading profiles rather than on grade-level-equivalency scores, which are usually derived from comprehension skills only.

Strategies

♦ **Assess beyond the Tests of Adult Basic Education or other standardized test.** Use subtests that will give you information about each student's vocabulary, fluency, decoding, and spelling skills. (Many examples of such tests can be found at: http://www.nifl.gov/readingprofiles/. Use the free online reading assessment or use the chart to select an assessment that better fits your program's needs. Some tests assess more than one reading component.)

♦ **Provide information about each student's reading profile to the teachers before students enter the class.** Teachers can then use that information to create subgroups within their classes to offer specific instruction to students who are at the same level in vocabulary, fluency, decoding, or comprehension skills.

♦ **Help teachers organize classes** to allow for grouping by beginning, intermediate, and GED profiles, and divide the intermediate group into those whose greatest needs are vocabulary, fluency, or decoding. Such a structure will help teachers or tutors more readily assist groups of students in strengthening specific reading component skills.

♦ **Help students gain a better understanding of reading skills.** At intake, help students understand what skills comprise reading ability, where their strengths are, and how the program will help them with the skills they would like to develop. Encourage teachers to help adult students understand the reading process and components. (The NCSALL teaching material *Understanding What Reading Is All About* provides activities that support this and can be downloaded from http://www.ncsall.net/fileadmin/resources/teach/uwriaa.pdf.)

♦ **Develop ways to help students see the connection** between the skills they acquire and the tasks they are trying to accomplish in daily living; for example, learning new vocabulary may make it easier for them to help their children with homework. Suggest that teachers create a bulletin board or other display that illustrates these connections. Provide teachers paid time to have one-on-one conferences with students to help each one explore these connections.

Additional implications are found in *Teaching and Learning Research: Overall Implications for Program Change* beginning on page 28.