

Section 1: Teaching and Learning

The Issues You Face

As a program administrator, you know that...

- ◆ Learning gains in reading may be difficult to achieve, and you need instruction in your program to be the best possible at moving students forward.
- ◆ You need to report on other National Reporting System (NRS) goals, in addition to reading-level gain, including students going on to postsecondary or new or improved employment; these goals require students to have skills beyond reading comprehension.
- ◆ You are accountable not just to federal and state funders, but also to students, local funders, the community in which your program is located, and other local stakeholders. These constituents, especially students, care about changes and improvements in literacy practices—using literacy—that affect their lives, such as helping children with homework, using numbers on the job, paying bills, and so on.
- ◆ Since very few instructors were trained as reading teachers, many may not be aware of the basics of how to improve reading and writing through instruction in vocabulary, fluency, decoding, and comprehension, and they may not know how to design curriculum based on students' daily literacy needs.
- ◆ The population of ESOL students is growing and your instructors may need to develop new instructional approaches to help those students.
- ◆ Student drop-out is a continual problem, and you want students to continue participating in the program as long as possible.
- ◆ Students in the same classroom react differently to the same instruction and those who do not respond well may become frustrated and leave.

NCSALL's research provides information to help you address these issues; specifically...

- The **Adult Reading Components Study** gives you information about the range of reading skills found among adult students and the importance of assessing adult students' vocabulary, decoding, and fluency skills in addition to their comprehension skills, so that you can help your teachers provide the best reading instruction possible.
- The **Literacy Practices of Adult Learners Study** gives you information about how to help adult students reach goals besides making level gains on standardized tests, so that you can be accountable to students and local stakeholders.
- The **Sustained Silent Reading Study** provides information on an approach to reading instruction for beginning-level ESOL students.
- The **Pair Work Study** gives you information to help your teachers consider a specific ESOL instructional practice.
- The **Adult Multiple Intelligences Study** and the **Adult Development Study** give you information about the way adult students learn and develop, which may be relevant to student persistence.
- The **Classroom Dynamics Study** gives you information about how classrooms are structured in adult education, which may be relevant to helping students persist in the program.

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)

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.

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.

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/uwriac.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.

The Literacy Practices of Adult Learners (LPAL) Study

Findings from Research

Adult students in classes using real-life (authentic) literacy activities and texts read and wrote more often, and used a greater variety of texts, in their lives outside class than students from classes that relied on textbooks and workbooks. Students from the classes that used real-life texts for real-life purposes were more likely to report that they spent more time reading and writing outside of school.

The degree of teacher-student collaboration showed no influence on change in literacy practices. This study did not find a relationship between changes in at-home literacy and the degree of collaboration in the classes.

Specific Implications of LPAL Study

Implication: Make improvements in students' literacy practices a goal of your program and ensure that instruction helps students reach that goal.

What the research says: Participating in classes that used real-life activities and texts was related to increases in literacy practices in students' daily lives.

Therefore, you should ...

... ensure that increasing adult students' literacy practices is a part of your program's mission and that instruction is organized to maximize use of texts from students' lives.

About the Literacy Practices of Adult Learners (LPAL) Study

A team of researchers led by Victoria Purcell-Gates hypothesized that adult education classes would be more likely to affect adults' literacy practices outside of the classroom if the classes used literacy materials and activities that adults actually encounter in their daily lives, and if the classes involved the adult students in the planning of the class. The researchers defined **changes in literacy practices** as increases in the frequency of reading and writing in daily life and/or increases in the types of texts read and written.

Researchers collected data from 83 adult literacy classes in 22 states on two instructional dimensions:

- *authenticity* (how much the materials, activities, and texts used in the literacy classes actually came from adult students themselves, representing literacy activities and purposes used by people in their lives), and
- *collaboration* (how much teachers and students collaborated in planning the types of activities, texts, assessments, and governance used in the classroom).

They also collected data on change in 173 adult literacy students' literacy practices, using a detailed questionnaire administered to students individually in their homes every three months for up to a year, as long as they attended their literacy class. They asked students if they engaged in specific individual literacy practices, and if so, whether these practices were new or engaged in more frequently since beginning the class.

Researchers then analyzed student responses, and looked at the relationship between change in literacy practices and the degree of authenticity and collaboration in the classes the students attended.

Strategies

- ◆ **State in your program's mission** that you aim to improve literacy practices and communicate that to teachers, students, and the community.
- ◆ **Help your staff to develop a literacy practices assessment tool.** Gauge baseline and progress in literacy practices, for example, by asking students to list everything they read the previous day. Provide funds or incentives for groups of teachers to design and pilot an assessment framework that is linked to capturing changes in students' literacy practices.
- ◆ **Assess literacy practices at intake, but also along the way.** Identify students for whom improving literacy practices is important and assess their literacy at the beginning and periodically throughout their enrollment in the program.
- ◆ **Open a dialogue with students.** Ask students about their daily literacy demands and interests. Acquire reading materials of the students' choice.
- ◆ **Encourage teachers to develop and share lessons using authentic materials from students' own experiences.** Authentic instruction requires finding out from adult students in each classroom what daily literacy activities they want and need to do. Support teachers to develop lessons using authentic materials and to share those lessons at staff meetings, on bulletin boards, or electronically using a program listserv. Contact your regional or state professional development and technical assistance center for resources and support.
- ◆ **Suggest teachers develop theme-based instruction** that integrates authentic materials with skills instruction. See *Creating Authentic Materials and Activities for the Adult Literacy Classroom*: <http://www.ncsall.net/fileadmin/resources/teach/jacobson.pdf>.
- ◆ **Use literacy practices assessment results to evaluate and improve program services.** Study the ongoing results of such assessments and make changes in program structures and services that better support students in strengthening literacy practices. Collaborate with students in assessing how the program can better support them in improving literacy practices at home, work, or in the community.

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

The Sustained Silent Reading Study (Beginning-level ESOL Students)

Findings from Research

Students' achievement on standardized tests was not statistically different between the classes that featured Sustained Silent Reading (SSR) or skills-based instruction.

There was no statistical difference between the two groups on attendance hours, retention, and progress through the program.

Teachers reported that even beginning-level students enjoyed the silent reading activities, and that they learned skills such as book selection and documenting what they had read.

Specific Implications of the Sustained Silent Reading Study

Implication: Sustained Silent Reading is no more or less effective than other types of reading instruction for beginning-level adult ESOL students.

What the research says: This research found no statistical differences in attendance hours, retention, progress through program, or achievement on standardized tests between students in beginning-level ESOL classes who participated in skills-based instruction or in modified Sustained Silent Reading.

Therefore, you should ...

... consider, with teachers, whether Sustained Silent Reading could be an option for your program.

About the Sustained Silent Reading Study

Researchers Sandra Banke, Dominique Brillanceau, and Stephen Reder conducted this random assignment study in beginning- and intermediate-level ESOL classes at the NCSALL/Portland State University ESOL Labschool. Over the course of one year, adult students in one class received skills-based reading instruction as part of a curriculum of integrated English-as-a-second-language (ESL) instruction. Students in the other class received modified Sustained Silent Reading Instruction, in which students picked their own books, read silently, and then discussed what they read with other students in pairs or small groups. Both reading approaches took place in the context of integrated instruction in ESL. The teachers switched classes midway through the year so that having one teacher or another would not be a factor. Researchers then looked at such outcome factors as achievement on CASAS and other standardized reading tests, attendance and persistence in the program, and progress through levels in the program.

Strategies

To support those teachers who choose to use Sustained Silent Reading as an option or alternative to skill-based reading instruction ...

- ◆ **Develop a library of appropriate reading materials** for each classroom that could be used for silent reading either as part of a Sustained Silent Reading approach or as a supplement to a skills-based approach. Texts for beginning-level classes might include simple texts on science, history, or geography; guides such as cookbooks or repair manuals; children's books; and simple biographies and novels written for adults. Involve students in building this collection.
- ◆ **Encourage teachers who decide to use the SSR approach to work together to design post-reading activities.** These activities should involve students in sharing information from the texts they have read. These might include saying whether they liked the text and why, retelling what they have read, and sharing a new vocabulary word from their reading. The activities should be brief and retain the focus on reading "for pleasure."
- ◆ **Plan, with teachers, how students involved in SSR will log their reading.** The process of keeping track of what they have read in a file or portfolio may contribute to skills such as alphabetizing, using forms, and documenting progress.

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

The Pair Work Study (Beginning-level ESOL Students)

Findings from Research

Adult ESOL students can work productively in pairs, even at beginning levels of instruction.

In order to complete a task assigned by the teacher, students in pairs often must “negotiate” in order to complete the task: they strive, with each other, to communicate meaning, find the correct word, and determine the best way to complete the task.

“Negotiating meaning” appears to be an important element of language learning, favorable to second-language acquisition and not a negative element, as many teachers might see such back-and-forth attempts to be understood. When students have the freedom to “negotiate” the meaning and form of what they are saying to each other, this leads students to “notice” the specific areas of their language that need development. In the interactions with their partner, students discover what will “fix” the problem (pronunciation, meaning, etc.).

Student pairs will negotiate different aspects of the same pair activity. Therefore, pair activities help students with their specific language needs. In other words, teachers can expect that students will learn the things

About the Pair Work Study

Researchers Kathy Harris, Stephen Reder, and John Helleman used numerous videotape clips from beginning-level ESOL classes, recorded at the NCSALL/Portland State University Labschool, to investigate how adult students work together in pairs. Through extensive viewing of different pairs of students working together in “dyads” to complete tasks assigned by the teacher, such as sentence completion, vocabulary practice, and dialogue activities, the researchers looked at how students interact with each other to complete the task.

that they each need from pair activities, rather than all having the same learning experience.

When teachers come into the vicinity of a pair of students working together, the nature of the students’ interaction changes. Students often stop negotiating and instead (a) ask the teacher to solve the problem they are having, (b) perform successfully for the teacher, or (c) start to have an independent interaction with the teacher.⁴

Specific Implications of the Pair Work Study

Implication: Teachers should use pair-work activities in their beginning-level and intermediate-level adult ESOL classes.

What the research says: Adult ESOL students can work productively in pairs, even at beginning levels of instruction. Student-to-student interaction is important to second-language acquisition.

Therefore, you should ...

... encourage teachers to use pair-work activities with adult ESOL students.

⁴ This finding comes from an ancillary study by Garland, J. N. (2002). *Co-construction of language and activity in low-level ESL pair interactions*. Unpublished MA Thesis, Portland State University, Portland, Oregon.

Strategy

◆ **Encourage use of and provide professional development as needed on a variety of activities using pair work.** These could include information-gap activities in which two people share information to complete a task; conversation grid activities in which students ask for information from many other students; sorting activities; and problem-solving activities, such as dialogues and role-plays in which students ask for information related to specific contexts (at work, in stores, etc.).

Implication: Help teachers learn how to support student negotiation in pair-work activities.

What the research says: “Negotiating meaning” appears to be an important element of language learning, and students in pairs can work on their particular areas of communicative difficulty. When teachers come into the vicinity of a pair of students working together, the nature of the students’ interaction changes and students stop negotiating.

Therefore, you should ...

... encourage teachers to allow time for student negotiation in pair-work activities.

Strategies

◆ **Encourage teachers to use pair-work activities that promote negotiation between students.** Teachers should try a variety of activities—more and less structured—and observe which lead to more negotiations among their students.

◆ **Encourage teachers to give students participating in pair-work activities “space” to negotiate.** When a teacher approaches a pair of students they may stop their negotiations and either ask the teacher about what they find confusing, or share what they have done with the teacher. It may be difficult for teachers to observe without helping or correcting students struggling to establish understanding—or using “incorrect” forms to achieve understanding. However, this research suggests that giving students both the time and the physical space leads to more negotiation of meaning, which contributes to the development of their ability to communicate in English.

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

The Adult Multiple Intelligences Study

Findings from Research

Teachers in the study understood and applied multiple intelligences (MI) theory in two ways: (1) MI-inspired instruction and (2) MI reflections. MI-inspired instruction included the teaching practices and materials that teachers used when they applied MI theory in their adult education classes. MI reflections were activities that helped students to consider their own learning strengths, weaknesses, interests, and preferences.

“It’s not how smart you are, but how you are smart.”

Introduced by Dr. Howard Gardner, MI theory proposes that:

- Rather than just one overall static I.Q., there are at least eight intelligences (linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, naturalist, interpersonal, and intrapersonal);
- Intelligences operate in combination; and
- Every person has a profile of intelligences that is manifested as different developing areas of strength.

MI-inspired instruction increased the authenticity of learning experiences. Because the MI theory’s definition of intelligence includes “real problems and products,” teachers used real-life problems to tap students’ intelligences, making instruction more authentic. Teachers found that student engagement in activities was highest when the content reflected student interests and realities. They also found that MI theory was a useful instructional framework that helped students make connections between new experiences, such as the content and skills that must be mastered for the GED, and experiences in their everyday lives.

MI-inspired instruction reduced teacher directedness and increased student control and initiative. Giving students choices in how they learn allowed students to

About the Adult Multiple Intelligences (AMI) Study

The Adult Multiple Intelligences Study, a collaboration between NCSALL, the New England Literacy Resource Center, and Harvard’s Project Zero, was the first systematic application of multiple intelligences (MI) theory to adult literacy education.

Silja Kallenbach and Julie Viens, codirectors of the research, designed the study based upon the following question: *How can MI theory support instruction and assessment in adult basic education (ABE), adult secondary education (ASE), and English for speakers of other languages (ESOL) programs?* From this overarching question, 10 teachers each designed their own research question, conducted research in their classrooms, and applied MI principles. The study’s codirectors looked across those ten action research projects for any patterns that emerged.

Researchers gathered data for the second, cross-site analysis by examining:

- teachers’ research reports
- teachers’ journals
- classroom observations
- semi-structured interviews conducted two to three times with each teacher researcher
- informal, tape-recorded conversations with participating students
- two progress reports and a final report written by each teacher
- notes from conference calls with three subgroups of teacher researchers
- e-mail communications, including AMI listserv postings
- artifacts of student work, videotapes, and photographs

identify, use, and demonstrate their particular areas of strength. This gave students confidence to take more control over their own learning, and it encouraged teachers to be less directive.

MI reflections enhanced students' perceptions of their abilities and career aspirations. Student self-reflection was a valuable component in building self-confidence and learning-to-learn skills, prompting students to see how they are smart.

Some teachers calculated significantly higher attendance rates in classes where they applied practices using both MI-inspired instruction and MI reflections.

Specific Implications of the AMI Study

Implication: Integrate MI-inspired practices into current classroom instruction.

What the research says: Students whose instructors utilized the Multiple Intelligences theory took more control over their learning, were more engaged in classroom activities that used authentic materials, and, in some cases, attended class more regularly.

Therefore, you should ...

... encourage teachers to integrate MI-inspired practices into current classroom instruction.

Strategies

◆ **Work with teachers to develop a concrete action plan for gradually integrating MI-inspired practice into their instruction.** Such a plan would include helping teachers who are interested in the research to study MI concepts; discussing the relevancy of the study's findings; asking teachers who are interested in MI to pilot AMI classroom activities, and then to present their findings to the staff; and encouraging more teachers to try MI-based principles in their teaching.

◆ **Obtain materials** that teachers can use to provide MI-inspired instruction activities: art supplies, math blocks, musical adjuncts, tactile objects. Make the most of what you already have available, and seek in-kind contributions of supplies from local businesses for the types of materials teachers find they need most.

◆ **Give teachers freedom to alter the physical space as needed or to take learning outside the classroom when appropriate.** Teachers will need a learning environment conducive to different types of activities and groupings, physical movement, and room to display student work.

Implication: Integrate MI reflection into classroom practice.

What the research says: MI reflection enhanced students' perceptions of their abilities.

Therefore, you should ...

... encourage teachers to integrate MI reflection into their classrooms.

Strategies

◆ **Add activities to intake and ongoing assessment** that help students to identify their intelligences and whether/how much self-efficacy, confidence, reflection on learning, and engagement have improved.

◆ **Conduct activities in staff meetings and in professional development that help both you and your staff to understand your own intelligences.** Encourage teachers to understand which intelligences are their strengths, and to recognize that is their natural way to teach. Know which intelligences are your strengths and recognize that this is where you tend to focus. Recognize that while you have strong proclivities to one or more of the intelligences, you and the teachers can and should develop the others, which will help you to better address adult students' strengths. For example, if math is not one of your intelligences, try to visit a class once in a while and sit with students who do have this intelligence while they work on a literacy activity using math materials.

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

The Classroom Dynamics Study

Findings from Research

Most classroom instruction in adult basic education focuses on developing basic skills, not on developing higher-level abilities such as critical thinking. Sixteen of the twenty classes in this study focused on teaching discrete skills in reading, writing, math, and GED preparation using commercial materials. Only four classes focused on meaning making. Teachers rarely introduced discussion that asked students about their opinions or beliefs, actions which may support development of important critical literacy skills.

Although teachers rank student needs as their top priority, their teaching doesn't reflect this goal. Teachers talked about meeting student needs, but rarely systematically assessed student needs or evaluated how their instruction was meeting the needs of individual students.

Class composition, enrollment turbulence, and funding pressures shape classroom dynamics. Classes that were relatively homogenous in terms of age, gender, and ethnicity seemed to promote sharing and community. Classes that offered continuous enrollment with students moving in and out placed constraints on effective teaching and learning. Varying funding regulation and eligibility requirements also affected how classes functioned.

About the Classroom Dynamics Study

Researchers Hal Beder and Patsy Medina observed 20 adult literacy classes in eight states and interviewed the teachers of these classes. They sought to investigate and describe classroom behavior in adult literacy education by considering critical questions such as:

- How is instruction delivered?
- What is its content?
- What processes underlie teaching and learning?
- What external forces shape classroom behavior?

Following a grounded-theory approach, they collected data from a limited sample of classroom cases and analyzed it for commonalities, themes, and categories to describe adult literacy classrooms. Although the sample size is limited and findings are not meant to be generalized to an entire population, the study generates new understanding and propositions for future research.

Specific Implications of the Classroom Dynamics Study

Implication: Use managed enrollment to support effective teaching and learning.

What the research says: Continuous, open enrollment made it difficult for classroom teachers to teach as effectively as possible because students were constantly moving in and out of class.

Therefore, you should ...

... consider limiting students' enrollment in classes to particular points in time.

Strategies

If you are concerned about enrollment turbulence in your program, consider whether to ...

- ◆ **Implement managed enrollment.** Offer classes for a predetermined length of time (10 weeks, one semester, etc.). Only let students enter at the beginning of the cycle.
- ◆ **Create waiting lists for classes,** a system for alerting students when a slot has opened for them, and alternatives for students who are waiting; for example, a computer lab. Let legislators know that your program has waiting lists because there is not enough funding to serve all those who want services.

Implication: Provide support for teachers' efforts to be student-centered.

What the research says: Although teachers rank student needs as their top priority, their teaching often doesn't reflect this goal.

Therefore, you should ...

... provide support and encouragement to teachers in their efforts to be student-centered.

Strategy

If you are concerned about being more student-centered in your program ...

- ◆ **Encourage teachers to integrate basic skills with student-identified themes and materials.** (See "The Literacy Practices of Adult Learners Study" on page 14 for strategies.)

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

The Adult Development Study

Findings from Research

Developmental level (“ways of knowing”) shaped adult students’ choices, preferences, and experiences of program learning. Students who were **instrumental** learners oriented toward having direct instruction whereby teachers and peers “made” them learn. **Socializing** learners, while valuing direct instruction, particularly valued a sense of belonging in the classroom, stating that it supported their learning. These students wanted their teachers to be good role models. **Self-authoring** learners viewed their teachers as sources of knowledge, but also saw themselves and other students as knowledge generators and were willing to offer feedback to their teachers; they also had the developmental capacity to take responsibility for their own learning.

Differences in developmental level were not highly associated with levels of formal education. Adult educators should not assume that students with limited formal education have ways of knowing that are less complex than other adults. The range of developmental level of students in this study was very similar to those in other studies of adults from a wide range of socioeconomic status.

Adult students’ ways of knowing could change significantly, even over a short period of time. Some students changed not only what they knew but how they knew, developing more complex ways of knowing in the span of a year.

Cohorts were important to both supporting and challenging adult students. Tight-knit, reliable, common-purpose groups formed by students in these programs provided emotional support and challenged them to broaden their perspectives.

About the Adult Development Study

A research team, led by Robert Kegan of Harvard Graduate School of Education, followed the experiences of 41 adult students enrolled in three distinct programs—at a community college, a family literacy site, and a workplace—intended to enhance their English language fluency, content knowledge, and effectiveness in their roles as students, parents, or workers. Some students were enrolled in pre-GED classes, ESOL classes, pre-collegiate classes, and others were in an adult diploma program.

Researchers selected adult students from programs that were of longer-term and that intentionally incorporated a variety of supports and challenges to facilitate adult learning, including tutoring, advising, and technological support. They chose these criteria in order to gain a better understanding of how adults in the study perceived program learning; how, if at all, program learning helped them enact a particular social role; and how, if at all, these adults changed while participating in the program (transformational learning).

Researchers followed a “constructive-developmental” research approach because it considers the way a person constructs his or her reality—or experience—and how the way a person makes meaning of experience can change or develop over time.

The research team employed a variety of data collection methods, including qualitative interviews with students and teacher, focus-group interviews with students, and classroom observations. They also established quantitative surveys designed to assess life satisfaction, self-efficacy, and locus of control. At least three rounds of data were collected over the course of 7 to 13 months at each program site.

Specific Implications of the Adult Development Study

Implication: Support the development of student cohorts within the program.

What the research says: Cohorts were important in both supporting and challenging developmentally diverse groups of adult students, and the benefits of cohort learning were not limited by level of formal education. Cohorts in the study provided adult students emotional and psychological support while challenging them to broaden their perspectives.

Therefore, you should ...

... encourage students to form tight-knit, common-purpose groups within the program.

Strategies

- ◆ **Encourage teachers to use small-group, collaborative instruction** as a regular part of their instructional practice.
- ◆ **Offer new students a comprehensive orientation to the program, preferably in groups.** Involve student leaders in providing group orientation to new students and fostering a sense of community.
- ◆ **Match new students with experienced students** who can offer support and teach them about how the program operates. Challenge your staff and student leaders to develop additional strategies that foster cohort development.
- ◆ **Implement managed enrollment.** Consider offering classes organized for a predetermined length of time (ten weeks, one semester, etc.). Only let students enter at the beginning of the cycle.

Implication: Provide appropriate learning experiences for students at all developmental levels.

What the research says: Developmental level (“ways of knowing”) shapes adult students’ choices, preferences, and experiences of program learning.

Therefore, you should ...

... encourage teachers to consider how to provide appropriate learning experiences for all types of students and ways of knowing.

Strategy

◆ **Encourage teachers to recognize their own way of knowing** and how their teaching approaches might reflect this. Support their efforts to include learning experiences appropriate for all students (students who are looking for the right answer from the teacher, students who value learning from teachers' modeling, and students who value having input into how and with whom they learn).

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

Teaching and Learning Research: Overall Implications for Program Change

In reviewing the research on Teaching and Learning, we identified certain implications that are consistent across all the studies; they are presented below. Some implications involved strategies for changes beyond the program level, and these are discussed in the section on advocacy (Section 5, starting on page 67).

Implication: Provide professional development for your teachers about teaching reading, using theories of adult development and multiple intelligences, and contextualized and meaning-making instruction.

What the research says: Students have different reading profiles, ways of knowing, literacy practices in their daily lives, intelligences, and needs and goals beyond just acquiring basic skills. For teachers to implement the most effective teaching strategies based on research, they need to learn about the research-based implications and strategies for instruction, including how to design curriculum based on students' daily literacy needs and how to design instruction that takes into account students' varied approaches to learning. Teachers need these skills to help all students make measurable progress.

Therefore, you should ...

... provide formal and informal training to help teachers in your program include research-based instructional practices.

Strategies

◆ **Assess teachers' existing knowledge and skills in these areas**, and assess their motivation to learn more about them. Make clear your expectation that all staff within the program, including you, have a professional responsibility to keep learning about these (and other) research areas for the benefit of the program and the students.

◆ **Help teachers participate in professional development activities related to teaching reading, adult multiple intelligences, adult development, use of authentic materials, and contextualized and meaning-making instruction.** Call your regional or state professional development resource and technical assistance center to find out what options are available to you and your teachers. Give input to local professional developers about needs of the teachers in your program.

◆ **Ensure you have at least one teacher who has been well trained in each area.** Designate one person to take responsibility for pursuing professional development in reading instruction, theories of multiple intelligence, theories of adult development, contextualized instruction, and meaning-making instruction. Pay them for a certain number of hours a week to support or advise other teachers in these areas.

◆ **Provide program-based professional development.** Bring teachers together regularly to participate in discussion groups, study circles, or practitioner research on reading, multiple intelligences, contextualized instruction, and adult development.⁵ Discuss the research findings and implications as they relate to your program's needs, and ask teachers to strategize about how to make changes in their classrooms based on the research findings.

◆ **Encourage teachers to work in pairs or small groups to share their experiences and ideas when they try new practices.** The NCSALL Professional Development Study found that teachers from the same program who participate in professional development together implemented more changes in practice.

◆ **Create mechanisms for teachers to share new instructional activities and materials.**
Ask teachers to document lesson plans of new instruction. Set up resource boxes or file cabinet space for teachers to store teacher- and student-developed resources/materials that support new instructional approaches in reading, adult multiple intelligences, and meaning-making instruction so that other teachers can see and use these activities.

◆ **Set up opportunities for teachers to observe each other's classrooms, particularly when they are trying out new activities or strategies suggested by the research.** Volunteer to teach one teacher's class (on a rotating basis) at least once a month so that the teacher is freed up to observe another teacher in his or her program. Suggest and allow teachers to merge two classes together to try out a new technique by team teaching it together.

◆ **Develop a way for teachers across programs to share information** about what they are learning and doing in their classes. Seek help from the local or state professional development organization to set up pages on its Web site for teachers to share activities across programs.

◆ **Ask your teachers to think about how to educate students about the research findings in this Sourcebook.** Strategize what program and classroom activities can help students learn more about what the components of reading are, what intelligences are, how they learn to learn, and how they can increase their literacy practices in daily life. Support student leadership groups that build higher-order skills and abilities as students work together to apply, synthesize, and evaluate what they have learned.

◆ **Seek out and attend professional development yourself.** Contact your regional or state professional development resource and technical assistance center to see what is available. Look on the Web for online courses or resources that you can read on your own.

◆ **Encourage teachers to pursue self-study.** Make a list of resources on the Web that teachers can access to learn more about these teaching issues. Order books, research reports, and practitioner

continued on next page

⁵ NCSALL has study circle guides and discussion guides in these areas, as well as research articles and other publications, ready for your use within your program. These are available at www.ncsall.net, under *Connecting Practice, Policy, and Research*.

Strategies *(continued)*

journals (like *Focus on Basics*) that teachers can read on their own. Encourage teachers working in similar areas (reading instruction, contextualized instruction, etc.) to form small “book clubs” where they can share ideas about what they have read individually.

◆ **Recognize and reward teachers’ efforts to learn more about what they have learned.**

Set aside time in staff meetings to allow teachers to share with others what they learned through professional development. Document the professional development activities your teachers engage in, and note these as a positive in the annual performance reviews or evaluations that you conduct.

Implication: Provide paid preparation time to all teachers.

What the research says: Teachers need time to develop strategies for adult-multiple-intelligence-inspired and contextualized instruction and prepare direct instruction activities for reading. Teachers who had paid preparation time made more changes in their knowledge and in their practices than did teachers who were not paid for prep time.⁶

Therefore, you should ...

... provide all teachers, no matter how part-time, with paid time to prepare for teaching their classes.

Strategies

◆ **Set up a formula for a minimum number of paid preparation hours,** and seek additional funding to cover these costs (see Section 5 for strategies related to advocating for increased funding).

◆ **Support joint planning time** so that teachers can talk about which instructional activities work in their classrooms. If your teachers generally work in isolation, pay teachers for online sharing time so that they can plan at a distance; or encourage teachers to meet outside of scheduled work hours to discuss classroom experiences (have them document their time and pay them as you would pay them for planning time).

Implication: Give teachers the freedom to make changes in the current curriculum.

What the research says: MI-based practices led to increased attendance, high student engagement in learning, and increased self-efficacy. Authentic/contextualized instruction led to increased literacy practices. Students with different reading profiles need different types of instruction related to vocabulary, decoding, fluency, and comprehension. Students have different ways of knowing and respond to different ways of teaching. Most adult literacy classrooms focus on teaching discrete skills, not higher-level abilities like critical thinking and problem

⁶ See Section 3 on Professional Development for more information about this research finding.

solving. Teachers who had the freedom to make changes to the curriculum changed more, after participating in professional development, than teachers who were required to use a set curriculum.⁷

Therefore, you should ...

... allow teachers to make changes in the curriculum in order to integrate new instructional approaches indicated by research.

Strategies

- ◆ **Discuss with teachers the connections between instructional changes based on research and increased learning.** Not every instructional change will lead to increased learning gains, but as program administrator you can encourage teachers to try instructional changes based on research.
- ◆ **Work with teachers to use program data to assess effects of instructional change.** Looking at assessment or retention data may help you and your teachers make decisions about effectiveness of specific instructional or curriculum approaches.
- ◆ **Recognize innovative, research-based practice.** When teachers make instructional or curriculum changes, recognize their efforts in staff meetings, newsletters, and so on.

⁷ See Section 3 on the NCSALL Professional Development Study for more information about this research finding.

Additional Resources

To learn more about NCSALL's Teaching, Learning, and Instructional Strategies studies, go to: www.ncsall.net

NCSALL Adult Reading Components Study:

- ◆ To see John Strucker's article titled "**What Silent Reading Tests Alone Can't Tell You: Two Case Studies in Adult Reading Differences**" (*Focus on Basics* Volume 1, Issue B, May 1997), go to: <http://www.ncsall.net/index.php?id=456>
- ◆ To see a description of **How the ARCS Study Was Done**, go to: http://www.ncsall.net/fileadmin/resources/research/op_arcs.pdf
- ◆ To visit an interactive Web site that provides a mini-course on reading and an opportunity for teachers to match their students' profiles with that of learner profiles developed using ARCS data, go to: <http://www.nifl.gov/readingprofiles/>
- ◆ To obtain a professional development activity for teachers, **NCSALL Study Circle Guide: Research-based Adult Reading Instruction**, go to: http://www.ncsall.net/fileadmin/resources/teach/adult_reading_scg.pdf
- ◆ To see a set of lesson plans for helping students understand the reading process, **Understanding What Reading Is All About**, go to: <http://www.ncsall.net/fileadmin/resources/teach/uwriaa.pdf>
- ◆ For a complete listing of all NCSALL materials on reading, go to: <http://www.ncsall.net/?id=792>

NCSALL Literacy Practices of Adult Learners Study:

- ◆ To download the full report #17, **Affecting Change in Literacy Practices of Adult Learners: Impact of Two Dimensions of Instruction**, go to: <http://www.ncsall.net/fileadmin/resources/research/report17.pdf>
- ◆ To download free the NCSALL Handbook for teachers titled **Creating Authentic Materials and Activities for the Adult Literacy Classroom**, go to: <http://www.ncsall.net/fileadmin/resources/teach/jacobson.pdf>
- ◆ To obtain a professional development activity for teachers, **NCSALL Study Circle Guide: Teaching and Learning in Authentic Contexts**, go to: <http://www.ncsall.net/fileadmin/resources/teach/tl.pdf>
- ◆ For a complete listing of all NCSALL materials on contextualized instruction and authentic materials, go to: <http://www.ncsall.net/?id=529>

NCSALL Adult Multiple Intelligences Study:

- ◆ To see the full report #21, ***Open to Interpretation: Multiple Intelligences Theory in Adult Literacy Education***, go to: <http://www.ncsall.net/fileadmin/resources/research/report21.pdf>
- ◆ To download a free copy of ***Multiple Intelligences in Practice: Teacher Research Reports from the Adult Multiple Intelligences Study***, go to:
http://www.ncsall.net/fileadmin/resources/research/op_kallen0.pdf. (This link takes you to the introduction and the abstracts; the teacher reports are found on the same site.)
- ◆ To download a free copy of ***“Multiple Intelligences Resources for the Adult Basic Education Practitioner: An Annotated Bibliography,”*** go to:
http://www.ncsall.net/fileadmin/resources/research/op_mi1.pdf
- ◆ To see a *Focus on Basics* issue devoted to adult multiple intelligences (Volume 3, Issue A, March 1999), go to: <http://www.ncsall.net/?id=161>
- ◆ To see a study circle guide on the adult multiple intelligences study, go to:
<http://www.ncsall.net/fileadmin/resources/teach/ami.pdf>
- ◆ To see a mentor teacher group guide on adult multiple intelligences go to:
<http://www.ncsall.net/fileadmin/resources/teach/mentor.pdf>
- ◆ ***Multiple Intelligences and Adult Literacy: A Sourcebook for Practitioners*** is available from Teachers College Press at: <http://store.tcpress.com/0807743461.shtml>
- ◆ For a complete listing of all NCSALL materials on adult multiple intelligences, go to:
<http://www.ncsall.net/?id=753>

NCSALL Adult Development Study:

- ◆ To download the full report #19, ***Toward a New Pluralism in Adult ABE/ESOL Classrooms: Teaching to Multiple “Cultures of Mind,”*** go to:
http://www.ncsall.net/fileadmin/resources/research/19_c1.pdf
- ◆ To download the “Executive Summary” of the adult development research report, go to:
<http://www.ncsall.net/fileadmin/resources/research/report19a.pdf>
- ◆ To download the issue of *Focus on Basics* on this research go to: <http://www.ncsall.net/?id=148>
- ◆ To see a study circle guide on adult development, go to:
http://www.ncsall.net/fileadmin/resources/teach/adult_development_scg.pdf

NCSALL Classroom Dynamics Study:

- ◆ To download the full report #18, ***Classroom Dynamics in Adult Literacy Education***, go to:
<http://www.ncsall.net/fileadmin/resources/research/report18.pdf>
- ◆ To download the issue of *Focus on Basics* on modes of delivery of adult education go to:
<http://www.ncsall.net/?id=720>

Other Resources:

The Reading Package is a comprehensive listing of resources related to research-based reading instruction that includes professional development, training activities, technical assistance, free downloads, and other customized resources. *The Reading Package* is offered through NCSALL/World Education, the Equipped for the Future Center, The Center for Literacy Studies, SRI International, and the Center for Applied Linguistics. For a brochure, send an e-mail to ncsall@worlded.org.