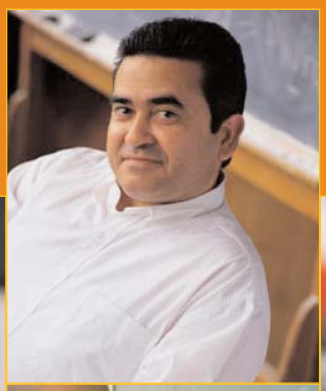
National Institute for Literacy
The Partnership for Reading

Applying Research In Reading Instruction For Adults

First Steps For Teachers





Developed by the National Center for Family Literacy

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First Steps for Teachers

Author: Susan McShane

National Institute for Literacy
The Partnership for Reading

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2005

The contents of this report were developed using funds transferred from the National Institute for Literacy to the U.S. Department of Health and Human Services and awarded as a grant to the National Center for Family Literacy. However, the contents do not necessarily represent the policy of the National Institute for Literacy, and you should not assume endorsement by the Federal Government.

Applying Research in Reading Instruction for Adults
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The National Institute for Literacy was established to ensure that literacy would have a place on the federal policy agenda and to invigorate a national effort to improve adult literacy. Its primary activities to strengthen literacy across the lifespan are authorized by the U.S. Congress under two laws, the Adult Education and Family Literacy Act (AEFLA) in the Workforce Investment Act and the No Child Left Behind Act (NCLB). The AEFLA directs the Institute to provide national leadership regarding literacy, coordinate literacy services and policy, and serve as a national resource for adult education and literacy programs. The NCLB law directs the Institute to disseminate information on scientifically based reading research pertaining to children, youth, and adults as well as information about development and implementation of classroom reading programs based on the research.

The Partnership for Reading, a project administered by the National Institute for Literacy, is a collaborative effort of the National Institute for Literacy, the National Institute for Child Health and Human Development, the U.S. Department of Education, and the U.S. Department of Health and Human Services to make scientifically based reading research available to educators, parents, policy makers, and others with an interest in helping all people learn to read well.

The National Institute for Literacy

Sandra Baxter, Director

Lynn Reddy, Deputy Director

Editorial and design support provided by C. Ralph Adler, Lisa T. Noonis, Elizabeth Goldman, and Bob Kozman at RMC Research Corporation, Portsmouth, New Hampshire

2005

This Partnership for Reading publication describes some strategies proven to work by the most rigorous scientific reading research available on the teaching of reading. The research that confirmed the effectiveness of these strategies used systematic, empirical methods drawn from observation or experiment; involved rigorous data analyses to test its hypotheses and justify its conclusions; produced valid data across multiple evaluators and observations; and was accepted by a peer-reviewed journal or approved by a panel of independent experts. This publication also was subject to two reviews; one by staff from the Institute of Education Sciences, the National Institute of Child Health and Human Development, the Department of Education, and the National Institute for Literacy; and one by external reviewers. In addition, experts in the field of adult reading research participated in its development. For detailed information on the review processes, contact The Partnership for Reading at the National Institute for Literacy, 1775 I St, NW, Suite 730, Washington, DC 20006.

Author's Acknowledgments

This publication is a product of the National Center for Family Literacy's Family Partnership in Reading Project, which was made possible by funding from the National Institute for Literacy. We especially thank June Crawford of the National Institute for Literacy for her support of this publication and the entire Family Partnership in Reading Project.

We also appreciate the contributions of the members of the National Institute for Literacy's Adult Reading Expert Group. From the earliest planning to reading final drafts, this group has provided vital input: defining the focus and scope of the book, clarifying research issues and helping to make the research-to-practice connection, offering ideas and resources for assessment and instruction, providing student data for the illustrations, reviewing drafts, participating in problem solving, and offering encouragement during the year-long development process.

Adult Reading Expert Group

- *Judith Alamprese,* Abt Associates
- *John Kruidenier,* Education Consultant
- *Daryl Mellard,* Center for Research on Learning, University of Kansas
- *Stephen Reder,* Portland (OR) State University
- *John Sabatini,* Learning and Teaching Research Center, Educational Testing Service Consultant
- *John Strucker,* Harvard Graduate School of Education, National Center for the Study of Adult Learning and Literacy (NCSALL)

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- *Elizabeth Albro,* U.S. Department of Education, Institute of Education Sciences
- *June Crawford,* National Institute for Literacy
- *Peggy McCardle,* National Institute of Child Health and Human Development
- *Lynn Spencer,* U.S. Department of Education, Office of Vocational and Adult Education

A group of adult education teachers also reviewed this publication during its development, offering the practitioner's point of view and helping us to make it a practical and useful tool for teachers.

Practitioner Review Group

- *Carol Benthien,* Sheboygan, Wisconsin Even Start Program
- *Chris Gallagher,* Carroll County, Maryland Public Schools, Even Start Program
- *Valerie Harrison,* Richmond, Virginia Public Schools, Toyota Families in Schools Project
- *Nancy Potenza,* Cochise College, Arizona Adult Education

The author especially thanks NCFL staff members Laura Westberg, Reading Initiative Project Manager, and Akeel Zaheer, former Vice President, Program Services, for guidance throughout the development process. Other NCFL staff also contributed: Kelly Bright found and retrieved numerous research articles; Tiffany Johnson created graphics, handled mailings, and prepared materials for the meetings; Gail Price provided invaluable editorial services; and Rebekah Witherington managed the details of travel to meetings.

Table of Contents

Preface

Reading is the most basic of skills. Reading provides access to other skills and knowledge, facilitates life-long learning, and opens doors to opportunity. The National Institute for Literacy is authorized by the U.S. Congress to collect and disseminate information on the components of reading and the findings from scientific research. The National Center for Family Literacy fully endorses the national emphasis on reading and the efforts to promote scientifically based reading instruction for children and adults. We offer this resource for adult education teachers who want to build and strengthen adults' reading skills. We hope that adult education instructors in family literacy, Adult Basic Education, and other basic skills programs will find it useful.

We know that large numbers of adult learners need to improve their reading skills. And yet, many instructors in adult education programs do not teach reading explicitly for several reasons:

- The assessments used in most programs don't reveal the complexities of adults' reading needs.
- Teachers often have only fragmentary knowledge about reading instruction. Many have not had specific preparation in this area.
- Most classes include adults with extremely varied skills, making specifically targeted, individualized instruction difficult, if not impossible.
- Teachers are challenged to find ways to incorporate reading instruction into their regular classroom schedules, routines, and lessons.

This book was written with these realities in mind. It aims first to build background knowledge about reading and scientifically based reading instruction. The language and format are "teacher friendly," using student and classroom illustrations and sample instructional activities to make research principles concrete for readers. The focus in applying the research is on modeling thinking, planning, and problem solving in the context of fictional adult education settings. The student and class profiles in these

illustrations are based on actual assessment data from adult literacy research studies—a reminder to readers of this book that it is a practical resource for use with real adult learners.

We titled this book "First Steps" because we know that no single resource can provide all the answers—everything that's required to change practice. But we believe this is a valuable resource for a teacher's professional development journey. By building a basic understanding of research-based reading instruction and offering suggestions for starting off in the right direction, we hope to whet teachers' appetites for further learning.

As teachers and programs become more capable of applying research-based principles for reading assessment and instruction, the real winners should be adult learners and their families. Improved literacy skills may allow these adults to take giant steps in the journey of lifelong learning. We are privileged to play a part in this important effort.

1

Making the Most of This Book: A Reader's Guide

Understanding the Purpose of this Book

This book is an introduction to research-based principles of reading instruction for instructors in adult education and literacy classes. It is intended as a first resource for those with little knowledge of reading instruction and is written with the needs of teachers in mind—those who want to improve their ability to provide reading instruction for adults in family literacy and other basic education programs.

Many adults enrolled in basic skills and GED preparation classes need to improve their reading skills. They almost certainly need comprehension strategies, but also may need other skills, like basic decoding and fluency (defined on page 2). Because most adult education programs do not offer reading classes, instructors who want to meet these learners' needs must be able to incorporate reading instruction into their regular classroom schedules, routines, and lessons. If you are like most teachers, you want to learn what research has to say about effective reading instruction, but you understand the learners' goals and are aware of the demands and limitations of your program.

This volume begins by building background knowledge of important concepts and principles and then suggests practical ways to apply research recommendations to the adult learning setting. However, no single resource can provide detailed guidance for every teacher and learner in every context. You should see this book as the first step in your professional development journey. You may use it to learn some of the basics. Then you may apply this learning as best you can in your classroom, identify what else you need to learn, and plan ways to acquire additional skills and knowledge.

Surveying Content and Vocabulary

Beginning with an overview of the components of reading and reading instruction, the book next summarizes basic principles of educational research and suggests general approaches for applying research principles in working with adult learners. The components of reading instruction are described in detail, with reference to the appropriate research findings about instruction. Because research indicates that individual adult learners have varied strengths and needs in each of the reading component areas (Kruidenier, 2002), assessment for each

IMPORTANT TERMS AND ABBREVIATIONS

Before you begin reading you should be familiar with some key vocabulary. Although many terms are defined when they first appear and in the glossary on pages 152-161, you should begin with an understanding of how important terms are used in this book.

Related "Phon" Terms:

Phonological awareness. Phonological awareness is a broad category that includes phonemic awareness. Phonological awareness is the perception of speech sounds as distinct from their meanings. It includes the ability to detect rhymes, syllables within words, and (at its most refined level) individual sounds within syllables and words (phonemic awareness).

Phoneme. A phoneme is the smallest unit of sound in spoken language. The word **sat** is composed of three phonemes: **/s/ /a/ /t/.**

Phonemic awareness. Phonemic awareness is the ability to detect and manipulate individual phonemes in words. It is a specific type of phonological awareness. A reader with good phonemic awareness knows the word **book** has three sounds and can replace the **/b/** with a **/t/** (for example) to make the word **took**. Phonemic awareness is necessary for development of accurate decoding skills. Once decoding skills are established, readers may not consciously use phonemic awareness in reading.

Phonics instruction. Phonics instruction is a method for teaching word identification that stresses letter-sound relationships. The method involves teaching the sounds that letters and groups of letters represent and how to blend the sounds to identify words. In this book, the term *phonics* is used to refer to instruction—what teachers do—and *decoding* is used to refer to what readers do.

ABE. ABE stands for Adult Basic Education and refers to publicly funded programs offering basic skills instruction to adult learners. ABE classes usually serve adults with reading, writing, and/or math skills below high-school level. The term ABE may be used generally to refer to all such services, but ABE programs are sometimes distinguished from ASE (Adult Secondary Education) programs, which provide instruction in higher-level skills in preparation for the GED tests (see GED below) or an alternative high school diploma. (So-called GED programs are a type of ASE program.)

Alphabetics. This term refers to the skills related to using letters to represent the sounds of language (the sound-symbol relationship). Alphabetics skills involve both phonemic awareness and decoding.

CASAS. The Comprehensive Adult Student Assessment System (CASAS) is a basic/functional skills test battery that was developed for use in adult education programs.

Decoding. Decoding is what readers do when they use their knowledge of letter-sound relationships to identify words. When readers intentionally use the letter-sound and syllable-sound connection, they may call this process "sounding out" words. Decoding becomes automatic for good readers who identify most words rapidly, but even good readers use decoding skills when they encounter an unfamiliar word.

ESL. These letters stand for English as a Second Language. The term may refer to the program—which provides instruction for immigrants in speaking, understanding, reading, and writing English—or the learners (as in ESL adults). These students are also called English language learners (ELLs).

ESOL. ESOL is often used interchangeably with the term ESL. ESOL stands for English for Speakers of Other Languages. Some people in the field make the distinction that this term is more accurate because its use does not assume that English is only the second language a learner is acquiring. ESOL is more often used to refer to adults or programs for adults (rather than children). These adults also may be called English language learners (ELLs).

Fluency. Reading fluency refers to speed, ease, accuracy, and expression in reading. A fluent reader is skilled at identifying words and reads with appropriate phrasing and intonation. Dysfluent readers are slow and hesitant; they may make errors in word identification and pause frequently to sound out words or correct mistakes.

GE. These letters stand for grade equivalent. A learner's test score may be described as "6 GE," meaning 6th-grade equivalent.

GED. The tests of General Educational Development are known as the GED test(s). For many purposes, the GED certificate is considered to be the equivalent of a high-school diploma.

Names and sounds of letters. In this book, we have adopted the convention of using bold type to refer to the name of a letter and slash marks to designate the sound of a letter. So **s** refers to the name of the letter and **/s/** refers to the sound **s** represents.

NICHD. These initials stand for the National Institute of Child Health and Human Development. In this book, NICHD, 2000 is a frequent citation, referring to the *Report of the National Reading Panel: Teaching Children to Read* (see Print Materials on page 5 for the complete title and citation).

Sight words. Words recognized very quickly (automatically) without conscious decoding are called sight words. A reader may have originally identified these words by "sounding them out," but after many exposures, they are stored in memory and recognized immediately. The term *sight words* should not be understood to imply that words are recognized as wholes. Instead, research suggests readers do process all the letters in a word even when reading very rapidly.

Sight word instruction. Some high-frequency words (especially those with irregular spellings that may be hard to decode, such as **come**, **one**, **of**, **to**, **was**, etc.) are taught initially to be recognized on sight. Other important words that follow common spelling patterns may also be taught initially as sight words if they are beyond the learners' current level of decoding ability. Examples are words adults need to read to achieve learning goals: e.g., **toddler**, **patterns**, **predict**, **poetry**, **report**, **invoice**, **employer**. Although such words are taught initially as sight words, eventually, after repeated readings, all words are read automatically as sight words.

TABE. The Tests of Adult Basic Education (TABE) are a battery of basic skills tests developed for use with adult learners.

Word analysis. Some prefer to reserve this term for the analysis that takes place during decoding; however, it is also used more broadly to refer to all word identification skills, including decoding and sight word recognition. *Word analysis, word identification,* and *word recognition* are often used interchangeably.

Word identification and word recognition. These terms refer to the processes used to determine pronunciation/meaning of a word: both conscious decoding and automatic (sight word) recognition.

component also is discussed. This information should help you understand the types of assessments required to develop reader profiles, so you can begin planning to address these needs in your program. Finally, the book reviews research-based general instructional principles and offers examples of approaches to instructional planning based on the needs of individuals and groups.

Planning To Meet Your Learning Goals

Because this book is just one of several tools you may use to develop your understanding of reading, you may find it useful to think about short-term needs and longer-term planning to achieve your professional development goals. The suggestions below may guide your thinking.

1. Analyze your setting.

Because classrooms and programs vary, we can't tell you exactly how to implement the research-based principles and suggestions described in the coming chapters. Before you begin reading, think about the setting in which you work. Try to find a description of your program or classroom using the checklist on page 4.

2. Identify what you want to know about teaching reading.

Do you have a specific goal in mind? What do you already know? Consider this definition: [Reading is]...a complex system of deriving meaning from print that requires all of the following:

- *the skills and knowledge to understand how phonemes, or speech sounds, are connected to print;*
- *the ability to decode unfamiliar words;*
- *the ability to read fluently;*
- *sufficient background information and vocabulary to foster reading comprehension;*
- *the development of appropriate active strategies to construct meaning from print;*
- *the development and maintenance of a motivation to read.*

[Partnership for Reading www.nifl.gov/partnershipforreading/explore/ reading_defined.html]

Which elements of this definition raise questions in your mind? What topics would you like to learn more about? Which of the reading-related skills are most appropriate as the focus of instruction for the learners in your class? Do you know which components to work on? Do you know how to assess learners' reading needs? Do you know how to deal with varied needs in a multi-level setting?

3. Read to find answers to your questions.

Consider your learners and your setting as you read, and think about ways to implement the research-based principles. This book will help you find answers to some of your questions, but it probably also will raise additional questions about how you can begin to incorporate reading instruction in your classroom or improve your current practice.

CHECKLIST

Class Composition:

Check

Which of these describes your class?

1. All levels of basic-skills learners and English-language learners in one class ☐
2. ESOL learners and native English speakers (basic-skills learners) in separate classes; all skill levels together in each class ☐
3. Separate classes for different goals and ability levels: ☐
   - Basic literacy (0-3 GE)
   - ABE (4-8 GE)
   - ASE or GED (9-12 GE)
   - Beginning ESOL
   - Intermediate ESOL
   - Advanced ESOL

Which of these describes your class?

1. Combination of programs and funding streams represented in one class: ☐
   - Family literacy-enrolled parents
   - Basic skills or GED-focused learners
   - Work-focused/welfare clients
   - Employer-sponsored learners
2. Separate classes for different programs and learner goals ☐

Instructional Format:

Which of these describes your class?

- Individualized instruction: learners study alone using workbooks or computer programs to complete assignments based on their assessed needs and goals, with teacher assistance as needed (sometimes described as a learning-lab approach) ☐
- Whole-class group instruction ☐
- Small-group instruction (3-6 learners) ☐
- Whole-class and small-group instruction ☐
- Individual tutoring by professionals or volunteers ☐
- Combination of two or more of the above formats ☐

With your classroom in mind, consider as you read whether or how a change in structure or format might allow you to better meet the reading needs of the learners in your program. When you know what it takes to make a difference, you may find some changes are within your control.

4. Make a plan to continue learning.

Find out how you can build on this beginning to learn more about reading instruction and better meet the needs of the learners in your program. Depending on your interests and needs, one or more of the following resources may be helpful.

- ***Education and training***
  - College or university course work in reading
  - Training offered by state or local staff development programs
  - Specialized training in one of the instruction programs designed for beginning readers
- ***Print materials***
  - Kruidenier, J. (2002). *Research-based principles for adult basic education reading instruction.* Washington, DC: National Institute for Literacy.
  - National Institute of Child Health and Human Development (NICHD). (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups.* (NIH Publication No. 00-4754). Washington, DC: U.S. Government Printing Office. Available on-line: *www.nichd.nih.gov/publications/ nrp.report.htm*
- ***Web-based resources***
  - Assessment Strategies and Reading Profiles: Adult Reading Components Study (match a profile or take the Mini-Course) *www.nifl.gov/readingprofiles/*
  - Bridges to Practice: Helping Adults with Learning Disabilities *www.nifl.gov/nifl/ld/bridges/bridges.html*
  - Partnership for Reading: Explore the Research *www.nifl.gov/cgi-bin/pfr/search.cgi*
  - What Works Clearinghouse: Programs for Increasing Adult Literacy *http://w-w-c.org/topic4.html*
- ***Current research studies***

  In 2002, the National Institute for Literacy, in partnership with the National Institute of Child Health and Human Development (NICHD), and the U.S. Department of Education (Office of Vocational and Adult Education) funded six multi-year research studies aimed at identifying or designing effective program structures and models for adult literacy instruction. Watch for information on the findings of the Adult Literacy Research Network. For more information check the U.S. Department of Education website *www.ed.gov/about/offices/list/ovae/pi/ AdultEd/ readingabs.html?exp=0*

The U.S. Office of Vocational and Adult Education (OVAE): Division of Adult Education and Literacy (DAEL) is working with states to develop new teacher training on evidence-based reading instruction practices. Information about the STAR (STudent Achievement in Reading) program is available at: www.ed.gov/about/ offices/list/ ovae/pi/AdultEd/index.html

2

Understanding Reading Instruction for Adult Learners

What Is Reading?

The definition of reading on page 3 is used by the Partnership for Reading, the National Reading Panel, and the federal Reading First law. According to this definition, reading is "a complex system of deriving meaning from print" that requires:

- an understanding of how speech sounds are related to print,
- decoding (word identification) skills,
- fluency,
- vocabulary and background knowledge,
- active comprehension strategies, and
- a motivation to read.

These key elements define the content of reading instruction, and research provides guidelines for building many of the important skills. This is good news because the need is great.

What Do We Know About Adults' Reading Needs?

Reading opens many doors—to employment, training, higher education, and lifelong learning. Adults who don't read well face serious barriers as they attempt to earn a living wage, to support their children's learning, and to fully participate in civic and community life. They are unable to gain access to a wealth of print information that readers take for granted, and they miss out on the joy of reading for pleasure.

Although we can't say exactly how literate adults need to be, we can say with certainty that most of the parents in family literacy and other basic education programs are seeking higher levels of literacy or English language proficiency to reach their personal, family, and work-related goals. That's why they enroll in adult education programs.

Most adult learners are employed and working hard to support themselves and to care for their families. Many have developed interpersonal and other skills that have enabled them to function as competent, contributing adults in spite of their lack of basic skills. However, they have hopes for the future, and they believe that education will give them options to improve their lives.

These adults know they need help to achieve their educational goals, but are often unaware of what it will take to do so. In particular, they may not realize the extent to which their reading ability is a barrier to their continued educational progress. Many enroll with the goal of earning a GED certificate, and expect to reach that goal in a matter of weeks or months. For some, a skills brush-up is sufficient, but most will need to do considerably more work than they anticipate. Some learners need to focus only on math or writing, but for others, the problem is more basic. Reading skill deficits affect performance on nearly every part of the GED test battery, because they are written tests. Learners with reading problems must address them before they can hope to meet their goals.

The number of adults with reading problems can be estimated based on national surveys. For instance, in 1992, 46% of adults in the U.S had Level 1 or Level 2 literacy skills, the lowest of five levels defined by the National Adult Literacy Survey (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993). (As this book is going to press, new data on adult literacy are being released by the National Center for Educational Statistics.)

How many of these adults are enrolled in ABE or other basic skills programs? The learner groups that programs serve vary, but the Third National Even Start Evaluation (U.S. Department of Education, 2003) gives us an idea of the literacy skills of adult participants in family literacy. This report shows that 11% of adults in Even Start in 2000-2001 participated in adult basic education services at the 0-4 grade level. According to data from the U.S. Department of Education's National Reporting System, in ABE/GED programs, the number of low-level learners is higher. About 21% of adults in 2001-02 entered with reading skills at 3.9 GE or below (*Participants by Entering Functioning Level, 2001-2002 Aggregate*).

Clearly these adults need reading instruction. But what about the others? Is reading instruction important only for beginners?

Research tells us that mid-level readers (often the largest percentage of adult learners) have extremely varied reading needs, and although they have learned some word identification skills, they often don't make good use of these skills when reading. When they come to a word they don't recognize, they may use the first few letters and/or context clues to guess rather than decode the word (Davidson & Strucker, 2002). Other learners need to increase fluency, build vocabulary, or improve comprehension.

In other words, although they may not always understand the exact nature of their problems, many adults in basic education programs need to improve their reading. So why don't teachers spend more time on reading?

Challenges in meeting adults' reading needs

In current practice, teachers in many adult education and family literacy classrooms focus on GED preparation and other goal-related instruction.

Of course, many of these adults are not able to read GED-level textbooks or other goal-related materials, but in a multi-level classroom, teachers often feel they can't provide the

kind of individualized reading instruction that these adults need. Teachers do the best they can to manage small- and large-group learning activities aimed at what seem to be common needs and rely on workbooks for individualized skills instruction. In the learning lab type of class, adults spend a large portion of their class time working independently on the skills they need, using textbooks or computer-assisted instruction programs, while the teacher circulates to provide help. In some classrooms the teacher is able to provide a volunteer tutor to work one-to-one with a learner who needs extra assistance.

This approach evolved in response to the realities of the setting and the learners. The multi-level classroom is common in adult basic skills education. The adults who enroll are busy with other life responsibilities, usually have limited time to give to education, and may be erratic in attendance. For these reasons, teachers often have found that some combination of the activities described above is the only workable way to manage their classes. Beder and Medina (2001) found in most of the adult literacy classrooms they observed "little evidence of teachers systematically assessing learners' needs or evaluating whether instruction met individual or group needs." They also concluded that continuous enrollment and mixed skill levels are very serious problems for adult educators.

Some states are beginning to move away from the multi-level class format and are recommending that programs provide classes designated for specific ability levels. In some urban areas with many classes at various sites, this kind of programming already exists.

However, even if the setting allows for individualized instruction, teachers usually have limited information about learners' needs. Armed with a couple of TABE test scores, they are expected to know just what each adult needs and how to go about providing it. It's not surprising that little explicit reading instruction is going on.

But now we have access to research (discussed later in this chapter) that tells us that adult learners have widely varying needs, and that we can administer specific assessments to create meaningful learner profiles. We also know now that if we work on those aspects or components of reading that are identified as needs, we might really make a difference for adult learners.

Of course, the realities of your situation are still with you! You will be challenged to find ways to use what we know to meet the reading needs of adults with varying skills and abilities. To some extent, meeting learners' needs is a matter of classroom management: planning simultaneous small-group activities, for example. But you may also need training to build your skills and awareness of options in instructional strategies. In particular, if you are working with beginning readers, you may want to find out more about one of the structured programs that have proven successful with children and adults who have reading disabilities.

Or you may be "running hard" to keep up with the needs of a growing number of immigrants, many of whom need to learn to speak as well as read and write English. If your class includes these students along with native speakers of English, you are

challenged indeed! As a first step, you may need special training to build awareness of cultural differences, so you can work effectively with these learners.

You may need other kinds of resources as well: more class offerings, more flexible space, teaching assistants, tutors, computers, etc. Even if you don't see a way to make these changes soon, knowing what needs to be done is the first step. The information on research-based instruction and assessment options and the instructional planning examples in Chapters 8 and 9 may help you to think creatively about what you can do with existing resources. In some cases, you may (at least) identify a target to aim for, so you can advocate for the kind of program services that adult learners need.

In summary, you can begin with some concrete steps to help adult learners improve their reading skills:

- Use assessments to identify the range of reading needs in your class.
- Use research-based instructional strategies to address those needs.
- Plan ways to get additional training and support.

What Can We Learn From the Reading Research?

Research can tell us something about reading instruction that has worked for adult learners, and knowing what works best is important because adult learners have no time to waste. We have a responsibility to help them become better readers and reach their educational goals as efficiently as possible.

Teachers who try to keep up to date by reading professional journals may be confused and put off by the quantity of "new" programs and priorities. Research offers standards for evaluating this flood of information—new ideas, competing claims, and commercial products—that educators are exposed to every day.

What are those standards? In their book, *Using Research and Reason in Education* (2003), Stanovich and Stanovich list the following criteria for evaluating claims:

- *"the publication of findings in refereed journals (scientific publications that employ a process of peer review),*
- *the duplication of the results by other investigators,*
- *a consensus within a particular research community on whether there is a critical mass of studies that point toward a particular conclusion (p. 6)."*

Published findings

The authors explain that the requirement that a study be published in a refereed journal is a minimal standard. At the very least, a research study should have undergone the scrutiny of journal reviewers, who are themselves researchers in the same (or an allied) field of study.

Experimental research[1] related to educational practice can determine that: if a teacher does A, the learning result is B. In order for that conclusion to be valid, the study must employ the logic of the experimental method, which enables the researcher to rule out other possible causes for the result.

[1] Experimental research is just one kind of research, but it is what we look for to establish that educational practices are effective.

For example, in a study that examines student learning after a teacher implements a new reading program, the researcher must control for other factors that might contribute to learning. Journal reviewers evaluating the claim demand evidence that the reading program should get the credit for improving reading comprehension.

They want to know that the student group receiving the new reading program and the other group that didn't use the new program are similar—that the experimental group didn't have characteristics that gave them an advantage. For example, reviewers want to be sure the experimental group didn't have better reading skills at the beginning of the study. They need to know that the researcher tried to ensure that the two groups were similar with regard to skills and other characteristics that might affect the learning outcome (age, prior learning, life experience, English language proficiency, etc.). They also want to be sure the students in both groups spent the same amount of time studying and the teacher in the experimental class didn't provide supplemental instruction.

By controlling for such factors that could influence the outcome, the researcher is able to state with some confidence that the new reading program caused the learning gain. (See Appendix A for details on research methods.)

Journal reviewers should look critically at such claims to be sure they are logically justified. If a study has not been exposed to—or has not survived—this sort of scrutiny, we should be wary of accepting any claims based upon it. But even that isn't enough. No single study carries enough weight to support a claim about an instructional practice.

Replicated research

The findings of a scientific experiment or educational study must be presented to the scientific community so other researchers can try it for themselves. If they repeat the experiment or educational intervention and have the same outcome, the finding has been replicated. Other researchers may try the intervention with different learner groups or in different program settings to see whether, or to what extent, the findings may be generalized. This kind of information is vital for practitioners who need to know how and when to apply research-based principles and practices.

Converging evidence

We can have great confidence in the validity of a claim if many studies point to the same conclusion. A review or synthesis of a body of research presents this converging evidence and makes research knowledge accessible to educators who cannot be expected to read and digest all of the original studies.

Evidence from a large number of related studies may be combined using a statistical technique called meta-analysis. Meta-analysis is one way to resolve disputes about studies with conflicting results and so may be a good resource for educators looking for answers. According to Stanovich and Stanovich (2003),

> *The method is useful for ending disputes that seem to be nothing more than a 'he-said, she-said' debate. An emphasis on meta-analysis has often revealed that we actually have more stable and useful findings than is*

apparent from a perusal of the conflicts in our journals (p. 18)

This is exactly what has happened recently in the field of reading, where debate about instructional approaches has a long history. A synthesis of the reading research for young children was done by the National Research Council and reported in 1998 in a book titled *Preventing Reading Difficulties in Young Children* (Snow, Burns, & Griffin, Eds.). The National Reading Panel did a meta-analysis of the reading research for preschool through grade twelve, which is discussed in the volume *Report of the National Reading Panel: Teaching Children to Read* (NICHD, 2000). And more recently, the National Institute for Literacy published a review of the adult reading research titled *Research-Based Principles for Adult Basic Education Reading Instruction* (Kruidenier, 2002). This review, done by the Reading Research Working Group convened by the National Institute for Literacy and the National Center for the Study of Adult Learning and Literacy, also draws inferences from the first two reports in areas where there are gaps in the adult reading research. The next section is an overview of what these research reviews have to say about teaching reading.

Classroom applications and professional wisdom

Scientific research hasn't yet been conducted on many instructional questions that arise in adult education classrooms. The available research doesn't identify the best textbooks or computer-assisted instructional programs. It doesn't establish proven strategies for working with multi-level adult learner groups or tell you how to manage your limited instructional time. This book can't offer tried-and-true recipes for addressing every hurdle that adult learners face or for providing structured, sequential instruction for a working parent who can't make it to class more than a few times a month.

Yet when a topic lacks a research base or hasn't been evaluated according to principles of scientific evaluation, it is still important to look at the findings and principles from the established research base to look for clues on how to best approach an instructional challenge. The lack of scientific evidence for the efficacy or effectiveness of a particular approach doesn't mean it's impossible to decide what to do. By consulting the research base, you may or may not find that the approach in question has a link to existing research. If it does, you may reasonably decide to use it. If not, you should consider an alternative.

Making good decisions about applying research findings also means understanding individual learners, groups, and classroom settings so your instruction acknowledges their particular characteristics. The judgment that you've acquired through experience also enters the decision-making process. Together, these forms of knowledge may be called professional wisdom, which allows educators to adapt to local circumstances and operate intelligently in the many areas in which research evidence is absent or incomplete.

What Are the Components of Reading?

Research has identified five components of reading:

- Phonemic awareness
- Decoding
- Fluency
- Vocabulary
- Comprehension

Each of the first four components plays an important role in facilitating comprehension, which is, of course, what reading is all about.

What Are the Components of Reading Instruction?

Paralleling the reading components are the instructional components:

- Phonemic awareness training
- Phonics instruction
- Fluency development
- Vocabulary development
- Comprehension-strategies instruction

How Do the Components Work Together?

Comprehension is the goal of reading instruction. All of the reading components contribute to the development of comprehension.

Alphabetics: phonemic awareness training and phonics instruction

The foundation for reading is the ability to identify words in print. Word identification skills are often called alphabetics. The term *alphabetics* refers to phonemic awareness, decoding, and sight-word recognition.

- ***Phonemic awareness.*** Phonemic awareness is the ability to detect individual speech sounds within words. Phonemic awareness is required for developing accurate decoding skills. Some struggling readers have not acquired this ability, so phonemic awareness may need to be directly taught. (See Chapter 4 for details.)
- ***Decoding***. Decoding is a word identification skill that involves using letter-sound correspondences to recognize words in print. Decoding at higher skill levels also includes using larger word parts—like syllables, prefixes, and suffixes. Adults with weak decoding skills need explicit and systematic phonics instruction. (See Chapter 4.)

Sight words are those a reader recognizes automatically and reads rapidly. Some frequently encountered words, especially those that have phonetically irregular spellings, are initially taught to be recognized on sight, to enhance reading speed and fluency. But even if a reader initially identifies a word by decoding, after many exposures the word is stored in memory and can be quickly recognized. In this way all words eventually become "sight words."

▶ **The alphabetics skills of phonemic awareness and decoding are necessary but not sufficient for reading comprehension.**

Fluency development

Fluency is vital to comprehension. A fluent reader identifies words rapidly and accurately with little effort, and is therefore able to focus on meaning. A fluent reader also "interprets" while reading to determine appropriate phrasing and expression. This aspect of fluency indicates comprehension of the writer's message. Guided repeated oral reading is a recommended strategy for building fluency in beginning and developing readers. (See Chapter 5 for details.)

▶ **Alphabetics skills are required to develop fluency. Fluency is necessary but not sufficient to ensure reading comprehension.**

Vocabulary development

Vocabulary is important to reading comprehension in two ways. The beginning reader uses decoding skills to "translate" print into words that are already in his oral vocabulary. At higher reading levels, vocabulary knowledge is critical for understanding increasingly difficult materials. Learners not only need to learn new words; they need to deepen their knowledge of words they already know. Vocabulary instruction should involve direct teaching and context-based approaches. (See Chapter 6 for details.)

▶ **Vocabulary is vital to reading comprehension at all levels.**

Comprehension-strategies instruction

Comprehension strategies enable learners to monitor their own understanding as they read and to solve comprehension problems. Teachers provide direct instruction in monitoring and repair strategies. (See Chapter 7 for details.)

▶ **Even accurate, fluent reading does not guarantee comprehension. Specific comprehension strategies may need to be taught.**

Teaching the component skills

These components should not be seen as sequential. Students *don't* learn the alphabetics skills and then become fluent and then develop vocabulary and then focus on comprehension. Although the foundational alphabetics skills are a primary focus of beginning instruction, in fact, all the components reinforce each other, and as a result, often develop simultaneously. Teachers should address all the necessary components (at appropriate levels of difficulty) in reading lessons (Kruidenier, 2002).

In addition, the skills should be taught and practiced not only with drills and workbook exercises, but also with meaningful, authentic (real-life) materials, including texts in content areas like science, social studies, literature, and materials related to work and home life. The National Institute for Literacy's website, Assessment Strategies and Reading Profiles (*www.nifl.gov/readingprofiles/*), clearly makes this point: "Reading is a combination of many sub-skills combined to achieve the common goal of comprehension. Teaching reading sub-skills in an authentic setting ensures that there is never a moment when comprehension is not a factor."

Print-based and Meaning-based Skills

Another way to understand the components is to group them into two categories:

- Print skills—phonemic awareness, decoding, and fluency
- Meaning skills—vocabulary and comprehension

Print skills have to do with reading words accurately and rapidly. When use of these skills is comfortable and automatic, the reader can attend to the meaning of the text, which is the focus of vocabulary and comprehension-strategy instruction. This distinction is not only a helpful simplifier; it also reflects common patterns observed in groups of adult learners.

Indications and suspicions cannot substitute for a formal diagnosis, so you must not assume that an adult has a learning disability.

For instance, reading researchers suggest that adults whose meaning skills are significantly stronger than their print skills present a profile associated with reading disability (Chall,1994, as cited in Kruidenier, 2002). We now know that most reading disabilities are related to word reading. You may suspect a disability when an adult struggles with print skills—isolated word identification, phonemic awareness, and decoding—but has an adequate oral vocabulary and is capable of understanding text when it is read to her.

English language learners present the opposite profile. They often exhibit stronger word identification abilities and fluency, with relative weakness in the meaning-based components. What holds them back is more likely a limited English vocabulary, not a reading disability. These two types of learners may have fairly similar scores on a silent reading comprehension test and even on a test of word recognition, yet have very different strengths and needs (Davidson & Strucker, 2002).

One lesson to be taken from these patterns is that you need to be able to assess adult learners' abilities in the component skills. A silent reading test alone often will not suffice. You have an opportunity to uncover problems that may never before have been identified and addressed. Unless you find out exactly what each learner needs, you will not be able to offer a real second chance at learning.

As you can see, research offers important insights about adult readers. It also provides guidance (or at least suggestions) for practice. As we get to specifics about assessment and instruction in the next chapters, you will see frequent references to adult education research principles. The next section introduces this research and includes a complete list of the principles.

What Does the Adult Education Research Say?

The resource of first resort for adult educators is *Research-Based Principles for Adult Basic Education Reading Instruction* (Kruidenier, 2002), a report of the research review done by the Reading Research Working Group (RRWG). Conclusions and suggestions presented in the report are from a fairly small body of experimental and non-experimental research in adult education, about 70 qualifying studies. A series of "emerging principles" described in the report are based on results from at least two experimental studies and any number of non-experimental studies. Findings based on fewer studies are labeled "trends."

Because very little experimental research on adult reading instruction has been done, the findings are carefully phrased. Note the frequent use of the word *may*, which indicates that further research is required to establish the validity of these results.

Relevant findings from the K-12 research are also included in the report as "ideas." The experimental research on children offers a much larger body of evidence, so where the adult research proved to be limited, the RRWG looked to the data on children. Of course, we can't be sure that these principles apply to adults, but until we have more adult education research, it seems reasonable to make use of this evidence in situations where adult learners and the children in the research have similar characteristics.

You should also be aware that most of the adult research was done with native speakers of English. Unless ESOL adults are specifically mentioned, the principles listed on previous page *may not* apply to them. For additional information on research specific to English language learners, you might consult The Center for Adult English Language Acquisition *www.cal.org/caela*.

RESEARCH PRINCIPLES

The principles below are taken from *Research-Based Principles for Adult Basic Education Reading Instruction* (Kruidenier, 2002, pp. 20-27). They are grouped by topic and reading component area.

The term *ABE*, as used below, includes both Adult Basic Education and Adult Secondary Education (ASE) services.

Reading Assessment Profiles

- ***Principle 1.*** When measures of achievement are obtained for each crucial aspect of reading instruction (alphabetics, fluency, vocabulary, and comprehension), instructionally relevant patterns of scores, or profiles of adults' strengths and needs in reading, may be observed. These profiles suggest that ABE readers, including those in ESOL programs and those with a reading disability, are very diverse and that any one measure of reading achievement may not be sufficient to identify strengths and needs for instruction.

Alphabetics (Phonemic Awareness and Phonics)

- ***Principle 2.*** Adult non-readers have virtually no phonemic awareness ability and are unable to consistently perform, on their own, almost all phonemic awareness tasks.
- ***Principle 3.*** Adult beginning readers, like all beginning readers including children, perform poorly on phonemic awareness tasks that require phoneme manipulation. The ability to perform more complex operations with phonemes generally increases (in adults without a reading disability) along with reading ability, until word analysis is established.
- ***Principle 4.*** Adult beginning readers, like other beginning readers, have difficulty applying letter-sound knowledge in order to figure out new or unfamiliar words while reading, although they are generally better at recognizing familiar sight words than children who are learning to read.
- ***Principle 5.*** Participation in ABE programs may lead to increases in adult beginning readers' word analysis abilities.
- ***Principle 6.*** Phonemic awareness and/or word analysis instruction may lead to increased achievement in other aspects of reading for adult beginning readers.
- ***Principle 7.*** Word analysis may be taught using approaches that include direct instruction in word analysis along with instruction in other aspects of reading.

Fluency

- ***Principle 8.*** Fluency is an issue for adult beginning readers, intermediate readers, and perhaps for those reading at more advanced ABE levels. There are very large differences between adults with good and poor reading fluency, and adult beginning readers' fluency is similar to the fluency of children who are beginning readers.
- ***Principle 9.*** Fluency may be taught to ABE students and fluency practice may lead to increases in reading achievement.
- ***Principle 10.*** Fluency may be taught using approaches that include the repeated reading of passages of text, words from texts, and other text units.

Comprehension

- ***Principle 11.*** Adults who qualify for ABE have poor functional literacy comprehension achievement. Although they may be able to perform simple comprehension tasks such as recalling ideas from simple stories and locating a single piece of information in a simple text, they are often unable to combine (integrate and synthesize) information from longer or more complex texts.
- ***Principle 12.*** ESL adults, on average, tend to have lower functional literacy comprehension achievement in English; the percentage of ESL adults among the ABE target population is greater than the percentage among the general adult population.
- ***Principle 13.*** Adults with a learning disability tend, on average, to have lower functional literacy comprehension achievement and are over-represented within the ABE target population.
- ***Principle 14.*** Participation in an adult literacy program may lead to an increase in reading comprehension achievement.
- ***Principle 15.*** Providing explicit instruction in reading comprehension strategies may lead to increased reading comprehension achievement.
- ***Principle 16.*** Combining comprehension instruction with instruction in various other components of reading may lead to increased reading comprehension achievement.

Computer technology

- ***Principle 17.*** In general, computer-assisted instruction (CAI) is at least as effective as non-CAI in increasing reading comprehension achievement.
- ***Principle 18.*** The use of CAI may lead to increased reading comprehension achievement.

As you can see, we now have research support for making changes in the way we approach reading instruction. We know that many adults need explicit reading instruction and that addressing deficiencies in aspects or components of reading—like decoding and fluency—will likely pay off. Although the adult education research base is small compared to the research on K-12 reading instruction, we can make some use of what is known about teaching children. In addition, we can look forward to more information on adult learning in the near future. A number of studies are underway to fill in some of our knowledge gaps (see Chapter 1, page 5).

In the meantime, you can use what we have, adapt with care what the children's research has to say, and apply these established principles to make decisions about instruction. This approach is reasonable because the Reading Research Working Group found that the adult education research results were usually compatible with the research on children, not in conflict.

As knowledgeable professionals, you have tools to use in making critical judgments about your practice. Of course, what *you* do is only half of the equation. Despite your best efforts, without the learners' active participation and commitment, they may not achieve their learning goals

How Do We Apply What We Know in Working with Adult Learners?

Once you have accepted the challenge that comes with knowing what should be done, how can you help learners understand what they need and make a commitment to do what it takes to improve their skills? The suggestions below are based on the experience of adult education practitioners. They may help you to make the most of what the research says about adults' reading needs. Think about how or whether these ideas apply to the learners in your class.

Building learner awareness of reading needs

- Learn as much as you can about each individual's reading strengths and needs. You will need to do more than one assessment. (See Chapters 3 and 8 for specifics on assessment.)
- Share the assessment results with the learner in plain language. Be specific, give examples, and include strengths as well as needs. You may want to avoid talking about grade-equivalent (GE) scores because a low GE may be discouraging.
- Explain that the results will be kept confidential (not released to others except for reporting purposes) and only used to set goals and plan instruction.
- Working in collaboration with the learner, establish a learning plan based on assessment results and individual goals and including details for the first steps: specific skills to be addressed, learning activities, and assessments.

Working with adults as partners gives them a measure of control and may help them to maintain the motivation to continue their studies. Another strategy for maintaining momentum is to keep learning activities connected to individual learner goals.

Making instruction relevant and useful

Adult learners, including those working on basic reading skills, have practical goals in mind. What they do in class should directly relate to those goals because if they do not see the instruction as relevant they may stop coming to class. To achieve their goals, adults must be able to transfer their reading skills to out-of-class contexts and tasks (on the job or at home), and making this transfer requires practice doing exactly that. Transfer doesn't always happen as a matter of course. You need to teach the transfer.

On the other hand, you must provide the instruction learners need, and if, for instance, they need basic reading skill development, you will have to use a structured, sequential approach. Even if you do not adopt one textbook or program, you may decide to use commercial materials to introduce concepts and skills and provide early practice opportunities or reading matter with a controlled vocabulary. You will be challenged to integrate the skills instruction they need with real-world learning based on goals.

For many learners it may be fairly easy to use authentic work- or family-related materials—or pre-GED textbooks—to practice reading and writing. For those with more serious reading deficiencies, though, finding adult materials at appropriate levels is often difficult. You may have to ask the learners to have patience as you use classroom texts or other structured material to introduce skills. Whenever possible, they should eventually practice those skills with authentic (real-life) materials.

Example

"Remember that we're working on these word patterns so you can figure out some of the words you don't know in labels and directions at work. Today we'll continue with the patterns and practice with them in your workbook, but tomorrow, if you'll bring in something you have to read at work, we'll look for pattern words and you can see how it works with the real thing."

You may also tape portions of authentic materials (manuals from work, for instance) and have adults read along with the tape. This works best if the material is not too far above their reading level. Another option for weaker readers is to read the material aloud and ask them to retell it. If you take down their words you create meaningful reading material they can discuss and use for skills practice.

And of course, direct skills instruction should not be the only focus of the reading lesson. Adults should have other literacy-rich experiences as well: reading and discussing stories, poetry, and articles, or researching topics of interest.

Planning for out-of-classroom learning

Even those who attend regularly probably spend only a few hours in class each week, and adults with limited reading skills will likely need to attend class for many months or years to achieve their reading goals. To the extent possible (without discouraging the learners), you should show your respect for adults by being truthful and preparing them for a large investment of time and effort. They may be able to increase their "time on task" by studying outside of class on their own time. You can encourage them by making specific assignments—but be sure to assign only tasks they can complete without

assistance. (And remember, of course, that some people don't have time for home study.)

We also know that many adult learners attend for a while, "stop out" for a while, and then come back or re-enroll at another location. This is a common pattern. Some adults make a real effort to continue learning during the periods when they are not attending class. They review their textbooks and use TV or computer-based instructional programs (Reder, 2003).

With that knowledge in mind, and understanding that life complications make it likely that many of the adults in your class today will not attend long enough to reach their goals before they leave you, you may want to think about ways to facilitate self-study.

- Provide books or articles on tape (if possible) for fluency practice. (Be sure to use unabridged tapes so the text and audio match.)
- Encourage learners to make word banks or personal dictionaries and take them home so they can review vocabulary.
- Provide copies of stories and articles you have read and discussed to encourage re-reading.
- Encourage learners to use the text/closed-caption feature (available on most television programming), which allows the viewer to follow the text while hearing the language simultaneously.

To the extent possible, be sure that learners have tools and materials to continue learning outside of class. And be sure they are familiar with the library and (if their skills permit) know how to use the computers most libraries now make available to patrons.

Summary: Tips for Goal-Directed Reading Instruction

- *Encourage adults to identify personal reading-related goals.*
- *Choose appropriate assessments of reading components to identify individual reading strengths and needs.*
- *Work with learners to assess skills, and make sure they understand assessment results.*
- *Create individual learning plans based on assessed needs and goals and ensure that adults understand and are committed to the plans.*
- *Provide explicit instruction as needed to achieve reading goals.*
- *Make frequent connections between skills work and goal-related applications, including practice with authentic materials at an appropriate level of challenge.*
- *Teach adults how to transfer classroom learning to other life contexts and provide tools for continuing to learn outside of class.*

3

Understanding Reading Assessment

What Is Learner Assessment?

Learner assessment is an ongoing process in which teachers and learners gather and analyze data and use it to make educational decisions. Tests, interviews, questionnaires, and work samples provide information about learners' educational histories, background experiences and knowledge, as well as specifics about reading skills, goals, and interests.

Why Do We Assess Reading Skills of Adult Learners?

In general, we have at least three purposes for assessment:

- To identify individual goals, strengths, and needs—for initial planning
- To check on learning and spot problems—for ongoing progress monitoring
- To assess learning over time—for outcomes measurement

Assessment is especially important in working with adult readers because the learners in any classroom vary greatly in their reading skills. There is no effective, one-size-fits-all program for teaching reading. In order to help each adult to begin at the appropriate level and make progress, teachers must know exactly what needs to be taught and learned.

Learner profiles

Teachers have long observed that classes of adult learners often include a wide range of skill levels and that adults tend also to be more heterogeneous in ages, interests, and experiences compared to groups of children. What we have only recently learned is that this variety has yet another aspect: even adults who earn similar scores on tests of silent reading comprehension may have very different needs and abilities. Research suggests that if you assess learners' skills in the components of reading, you can use these individual profiles to target instruction appropriately (Kruidenier, 2002; Sabatini, 2002; Snow & Strucker, 2000).

The *Adult Reading Components Study* (Strucker & Davidson, 2003) assessed 955 adult learners in eight states in order to describe the types of readers enrolled in Adult

Basic Education programs. Each of the learners was tested in phonological awareness, rapid naming, word recognition, oral reading, spelling, vocabulary, and background knowledge. The researchers also interviewed the adults to learn about their past educational experience and reading habits. They identified ten clusters, or similar reading profiles, among the ABE group and two more clusters of ESOL learners. The study confirms that readers may achieve similar scores on a silent reading comprehension test but still vary greatly in fluency, decoding skills, and vocabulary.[2]

This information is important because most teachers in adult classrooms administer only a silent reading comprehension test, most often the reading subtest of the Test of Adult Basic Education (TABE) or the Comprehensive Adult Student Assessment System (CASAS). Of course, in your classroom, you cannot administer all the tests that researchers use, but you can be aware of the need to pay attention to the component skills as you identify tests and other measures for initial, ongoing, and outcomes assessment. (A suggested process for initial assessment is outlined in this chapter and detailed in Chapter 8.)

How Do We Assess Adults' Reading Skills?

Your plan for reading assessment should include measures that address all three purposes and provide useful information for instruction. For example, for some learners you will need initial phonics assessments to identify which letter-sound relationships they know and can use and what they need to learn. Perhaps a learner knows the common short-vowel patterns and remembers that an **e** at the end of a word usually means the preceding vowel has its "long" sound. But, this adult might need to learn the vowel sounds represented by **oo**, **oy**, and **au**—to name a few—and strategies for decoding multi-syllabic words. Oral word analysis assessments are useful in identifying these needs.

You will also want an early measure of fluency, to see if word identification is slow or if work on phrasing and expression might improve comprehension. An oral, individually administered assessment may involve single-word reading tasks and/or passage reading.

Throughout the teaching-learning process you'll need ways to monitor skill development and identify problem areas on a daily basis, so you can suggest more practice, re-teach, or adjust your instruction. And finally, you'll want to document growth in those skill areas that have been the focus of instruction. Outcomes measurement is reinforcing for you and the learners and is vital for reporting to administrators and funders.

Types of measures

One way to understand the options in choosing achievement measures is to think about three general categories:

- Standardized tests
- Classroom- or curriculum-based tests
- Supplemental/alternative assessments

[2] For details, see the Assessment Strategies and Reading Profiles website—part of the National Institute for Literacy's website—at *www.nifl.gov/readingprofiles/*. You can also take a mini-course on reading and match a learner you know with one of the profiles on the site.

Standardized tests. Standardized tests are suitable for some of your assessment purposes. In adult education, when standardized tests are mentioned we often think of the TABE or CASAS, but of course there are many others that assess different kinds of skills in various ways. Here's what they all have in common, according to Holt and Van Duzer (2000):

> *Standardized tests are created according to explicit specifications with test items selected for difficulty and discrimination power[3]. They are administered and scored following standard procedures, so that variations in scores may be assumed to represent real differences in learners' abilities, not different administrators or testing conditions.*
>
> - *A norm-referenced assessment compares an individual's current achievement to the average performance (norms) of selected participants (the norming group).*
> - *A criterion-referenced assessment compares an individual's achievement to an absolute standard or criterion of performance (Holt & Van Duzer, 2000).*

Classroom- or curriculum-based tests. This type of test is closely related to instruction. Teacher-made tests and tests in workbooks and computer-assisted instructional programs fall into this category.

Supplemental/alternative measures. Alternative measures include any methods used to find out what a learner knows or can do, that are intended to show growth and inform instruction, and are *not* standardized or traditional tests. Valdez-Pierce & O'Malley (1992) suggest the following definitions:

Performance-based assessment

- is designed specifically to assess performance on one or more instructional tasks,
- requires students to accomplish specific skills and competencies, and
- is rated on a pre-determined scale of achievement or proficiency.

Portfolio assessment

- is a systematic collection of student work that is analyzed to show progress over time, and
- may represent progress and achievement in more than one area.

Self-Assessment

- Students monitor their own performance and evaluate their progress and accomplishments.
- Students select learning tasks and plan use of time to accomplish tasks.

[3] During standardized test development and validation, test items are evaluated on their ability to discriminate between students of high and low ability. For example, an acceptable item is answered correctly by most students who earn high scores on the test (or some other measure of proficiency) and incorrectly by most low-scoring students. If everyone gets the right answer to an item, it is a poor "discriminator."

Following are examples of tools for and documentation of supplemental or alternative assessment:

- Products of group or individual study, like stories, class newsletters, or project reports
- Records of growth in reading rate
- Portfolios and other collections of work samples
- Journals
- Teachers' anecdotal notes of observations
- Learner self-report measures, like checklists, interviews, and surveys

Other informal strategies are also useful for day-to-day monitoring and decision making. You should continue using your judgment to assess learners' progress and identify problems. For instance, in addition to checking learners' work, you may use questioning and observations to get a sense of who is doing well with what and who needs more—or a different kind of—instruction. Speed of task completion, enthusiasm and engagement (or lack of same), and frequency of participation in discussions are obvious indicators of confidence or confusion. Although these measures don't produce reportable data, they do provide good information for teachers.

Measures to address different purposes

Many types of instruments and activities may be useful for the first two assessment purposes: identifying strengths and needs and monitoring progress. Interviews, tests, and samples of oral reading are useful for initial assessment and planning. Standardized tests are typically more reliable than less formal measures and may therefore provide more accurate results for developing reader profiles. For classroom- and curriculum-specific learning, you may develop your own tests and performance-based measures that will be sensitive to the content you have taught. These measures provide good information for teachers and learners.

Outcomes measurement, however, is of interest to others as well. Program funders and other external stakeholders are interested in the outcomes of instruction over a period of time, so the data collected for this purpose must "speak to" those who aren't familiar with the learners and don't know many particulars about the instruction. For this reason, outcomes measurement usually includes objective, often standardized instruments.

What Do We Need To Know About Valid Measurement?

Reliability and validity in assessment

You want to be confident that the assessments you use truly reflect your adult learners' abilities. If you don't have a true measure, the decisions you base on the data may not lead to good results. Two important features of assessment practice relate to this need: reliability and validity. You should consider reliability and validity at every point

in the process: choosing or developing assessments, administering, scoring, and interpreting results.

Reliability concerns consistency or stability of scores. If scoring is reliable, different administrators evaluating the same test or performance should arrive at similar scores or ratings. An instrument should have clear guidelines for administration and scoring, and teachers should be trained to ensure that they are using consistent procedures. This "inter-rater reliability" is especially important when subjective scoring judgments are required, as in performance-based assessment. If different teachers rate performance differently, how can you know what a given score means?

A reliable instrument is also consistent over time. If a learner takes a test at two different times with no intervening instruction, his scores should be the same or very similar, because one assumes that abilities don't change much without specific intervention. If the scores are different, they may reflect some feature of the instrument, not the individual's skills and knowledge. If the scores on a test vary without instruction, how can you be sure that post-test scores reflect learning that has occurred?

Of course, no measure is 100% reliable. Test developers and measurement experts use statistical methods to assess the types of reliability discussed above and assign ratings—reliability coefficients ranging from 0 (low) to 1.0 (high). These ratings are based on qualities and features of an instrument. But these are not the only factors that contribute to reliability.

Administrators' and teachers' assessment practices make assessment more or less reliable. If teachers all follow the directions and adhere to standard procedures, objective tests should be reliably scored. Alternative assessments that require teacher judgment are another matter. If you use such assessments, be sure you read and follow all the guidelines and take advantage of any training that is available.

Validity refers to the interpretation and use of test scores (American Educational Research Association, 1999). Validity is extremely important because we make decisions on the basis of these scores, and we need to be confident that they accurately represent the abilities—both strengths and weaknesses—that we intend to measure and that our use of the scores for various purposes is appropriate.

- Would a teacher examining the score(s) on a particular test make appropriate inferences about students' abilities?
- To what extent do the test scores mean what the developer says they mean?
- How accurate is the test as a measure of a student's abilities in a particular domain or content area?
- What evidence exists to support the use of a score for different purposes (such as placement in a course or program, eligibility or referral for specific services, and identification of instructional needs)?

Questions like these are addressed during the validation process. Formal instruments have usually been subjected to this kind of evaluation and assigned a "validity

coefficient." Programs should choose those with validity at acceptable levels. (Reliability is necessary, but not sufficient, to ensure validity.)

You should also be aware of any factors that might affect a score's validity. For instance, an English language learner who takes a math test in this country may be at a disadvantage if he doesn't read English well. If he doesn't know key vocabulary in the problem-solving section, he will not be able to demonstrate his true math abilities. This test is not a valid measure of his math skill because it requires reading as well as math.

Of course, the issue of language proficiency is important in a broader context as well. English language learners may require assessments designed specifically for them if they are not sufficiently proficient in the English language to understand directions and read the test items. If you give the TABE to someone who doesn't understand the language you can't get a valid score.

A similar situation arises when we attempt to measure vocabulary with a written test. Decoding ability is required to read and respond to written test items, so unless we are sure a learner can read the test items accurately, we cannot be sure whether we are actually measuring knowledge of word meanings or merely decoding ability. When a learner's decoding skills are limited, we need to administer an *oral* vocabulary test to get a valid measure of vocabulary.

A learner's experience with tests and test-taking skills also may affect the validity of a score. If any of the descriptions in the following list apply, the test score may not accurately reflect the learner's skills and abilities.

The adult:

- has been out of school for many years,
- is anxious about taking a test,
- is not familiar with machine-scored answer sheets or some other part of the testing process, and/or
- doesn't know a strategy for approaching difficult multiple-choice questions (for instance, eliminate the obvious wrong answers and make a good guess).

The score in such a situation in part reflects features of the test and/or aspects of the learner's knowledge and experience not related to the content being assessed. You may be familiar with the idea that some people are better at taking tests than others. If we want the score to be a fair measure of reading-related skills, we need to take steps to minimize the effect of test-taking skills.

To improve the validity of scores, you should *avoid giving tests at enrollment*. Instead, take time to prepare the learners:

- Explain what the test measures and how it will help you to help them.
- Explain that scores will be kept confidential and not released to others (except for reporting purposes).
- Reassure them that you know the test will not show everything they know and can

do, and that they will have plenty of other opportunities in class to demonstrate their abilities.

- Administer the publisher's practice test (if such a thing exists). If not, at least create a few practice items and give the learners a chance to get comfortable with the answer sheet. As they work on this practice, be sure they are recording their answers correctly (so that the answer to item # 5 is marked on the line for item # 5, for instance!).

As suggested above, your understanding of factors affecting validity ensure that you will make reasoned and fair judgments about a learner's performance. In other words, validity (like reliability) isn't determined only by qualities of a test or other measure. Your interpretation and use of the results are also important. For instance, a reading achievement test like the TABE or CASAS is not intended to be used as a screening tool[4] for learning disabilities. Although a screening process may include such test scores among other data collected, to use a TABE or CASAS test alone as a screening tool is not a valid use. No matter how valid the score may be for its intended purpose, it may be invalid when used in other ways.

Administering the wrong level of a test also results in invalid scores. If the test is too difficult, there are too few items at a low level to identify a learner's strengths and needs. (The testing experience may also be frustrating and discouraging.) If a test is too easy, the learner cannot demonstrate skills at higher levels, and problems that might show up with more difficult tasks are not revealed. Both situations result in scores that do not reflect true abilities. Although it may be less expensive and may seem more efficient to give the same level of test to everyone, it is not best in the long run because you don't get good information about learners. For valid use of a standardized test that has more than one level, it is vital to begin with a placement or locator test to identify the appropriate level of test to administer.

You (or decision-makers in your program) may consult the *Mental Measurements Yearbooks*[5] and/or test publishers' manuals to find reliability and validity data on instruments you are considering, so you can be sure to choose instruments with acceptable ratings. You also should be thoughtful, careful, and systematic in your use of the tool(s) you choose in order to get as true a measure as possible.

But no matter how good it is and how professionally you use it, every assessment has limitations. No single measure can provide a complete picture of adults' abilities in reading or any of the reading components. A test is just a sample of performance. And of course, you are only human, and your interpretations are not 100% accurate. More than one kind of problem may result in poor test performance. You may not be fully aware of all the factors involved in performance on a test. You may miss something important and under-interpret the results, or, in contrast, you may make a broad generalization that isn't fully supported by the data.

[4] The term "screening" is often misunderstood. A screening tool is used to identify those learners who *may* have a problem (such as a learning disability). The purpose of screening is to identify those who should be referred for further assessment to make a determination about the problem in question.

[5] *The Mental Measurements Yearbooks* are published by the Buros Institute of Mental Measurements. You may find them in university libraries or online at *www.unl.edu/buros/.*

Multiple measures

One solution to these universal limitations is to use multiple measures, so you can look at each individual in different ways at different times. No single test provides a full picture of what a learner can do. You and the learners should know that although you will make instructional decisions based on one or two early measures, these decisions are tentative, and there will be plenty of other opportunities for them to demonstrate their abilities. If a learner is not good at taking tests, or if you are not sure about your interpretation of the scores, it doesn't matter as much if you also consider other classroom performances in assessing reading abilities.

Of course, multiple measures are necessary to assess the reading components, so you will want to think about the types of measures that will meet your planning needs and your other assessment purposes as well. As you consider the components, think about what it will take to get reliable and valid assessment data on the learners in your program.

How Can We Assess the Reading Component Skills?

In the ideal world, we would all have the time and other resources to assess each of the component skills as needed and to use the information acquired to provide individualized instruction. Of course, that isn't the world we live in, but you may still find it helpful to consider some of the options in case you have an opportunity to influence decision making about your program, to acquire special funding, or to create partnerships to access professional resources from your school or other agencies.

A combination of tests and other measures may be used to address your three broad purposes: initial planning, progress monitoring, and outcomes measurement. Each of the next four chapters includes descriptions of the kinds of tests and tasks used to assess the reading components. Chapter 8 looks at all the component assessments as part of an initial assessment system and suggests next steps in developing individual learning plans. Reviewing this general information may help you to better understand the concepts, issues, and options, so you can make decisions that make the most of your resources.

Of course you can't be expected to make all the necessary changes overnight. We encourage a thoughtful, planned, and deliberate approach. If your goal is to be able to administer and properly use component assessments in order to provide more individually appropriate and effective instruction, you should take one step at a time. We hope you will use what you learn in this book to make a start. When you are comfortable with these changes, you can evaluate them, make any necessary adjustments, and then research and investigate the possibilities for expanding your assessment system. With this approach in mind we suggest the simple plan below. Although it does not provide comprehensive assessment, it is a possible first step. Read Chapter 8 for details on the plan and a checklist to document learner assessment.

A start-up plan for initial assessment

The first three steps are intended for all learners. They provide information about each learner's background and abilities, and also act as screening tools to determine who needs further assessment.

- ***Step 1*** (For all learners)
  Conduct an interview with each learner at enrollment to set individual reading goals and to learn about specific reading difficulties, past educational experiences (including any special reading help), job skills, and other abilities and interests.
- ***Step 2*** (For all learners)
  Administer a standardized reading comprehension test (you're probably already doing this) to get a measure of silent reading comprehension and establish a baseline for progress and outcomes measurement (including accountability).
- ***Step 3*** (For all learners)
  Administer a quick measure of fluency. This is for screening purposes, to assess speed only. Ask each learner to read a short passage aloud as rapidly as possible—with accuracy—and count the number of words read in one minute. (The difficulty level of the passage depends on the learner's reading ability. See Chapter 8 .)

Decision point:

Those who score at least 8 GE on the reading test *and* read at least 125 words per minute may need no further testing right away. You may proceed with planning and teaching.

For those who score below 8 GE *or* read more slowly than 125 words per minute, you should get more information to identify the specific causes for the comprehension and/or fluency problem.

- ***Step 4*** (For those who need further assessment)
  Administer a decoding and/or a word-identification test (to assess print skills).
- ***Step 5*** (For those who need further assessment)
  Administer an oral vocabulary test (to assess meaning skills).

For details on this initial assessment plan, see Chapter 8.

Ensuring confidentiality

All assessment information should be entirely confidential. Of course, you will report scores to funders as required, but names are not attached to this information. Learners should feel comfortable that anything they reveal is used only by those who need to know in order to provide appropriate instruction. You may not reveal any information to others without the written consent of the learner. You should be certain that test scores, interview information, and other assessment data are stored in secure cabinets and are never left open (on desks, for example) for others to see.

4

Alphabetics: Phonemic Awareness Training And Phonics Instruction

The term *alphabetics* refers to the skills of phonemic awareness and decoding. These word identification skills are the foundation of reading instruction.

What Is Phonemic Awareness?

Phonemes are the smallest units of sound in spoken language, and phonemic awareness is the ability to detect those individual sounds within words. Although most good readers hear and recognize entire words and understand them as wholes when they read, when asked to do so, they can also identify phonemes within those words. That means when they hear or read the word **rug** they think of the thing that lies on the floor, but they can also can identify the sounds in **rug**: /r/ /u/ /g/. (NOTE: Letters within slash marks represent the sounds.) And they can manipulate the sounds, for instance, creating a rhyme for **rug**, by substituting the /b/ sound for the /r/ sound. For most of us these are simple abilities associated with childhood games and songs, and we're not even sure how and why we know how to do this.

However, phonemic awareness is not acquired "naturally" as we learn to speak. Instead it is usually learned through reading and writing an alphabetic language like English or Spanish (Kruidenier, 2002), and many children pick it up easily. Although some adults don't remember learning this skill and don't know they have this capacity, if given training, many good readers can identify and manipulate phonemes with reasonable accuracy (Scarborough, Ehri, Olson, & Fowler, 1998).

But some people (and many poor readers) do not easily acquire phonemic awareness. When struggling with reading or spelling, they may not understand what the teacher means when she asks, "What sound does it begin with?"—or even more difficult—"What vowel sound do you hear in the middle?" They don't understand because they don't perceive the individual sounds. They hear the words, but are not aware of the phonemes. For these learners, the teacher may as well be speaking a foreign language. This quote from an adult learner says it all: "It's not that no one ever taught me how to read before; it's just that they never took me back far enough. They didn't know what I didn't know" (Podhajski, 1998).

Phonemic awareness, decoding, and phonics

Phonemic awareness is related to, but different from, decoding. Phonemic awareness is about speech sounds only. Decoding makes the connection between letters and the sounds they represent. When we talk about phonics instruction we refer to training in the use of letter-sound relationships to identify words in reading or to approximate the spelling of words. Phonics instruction builds decoding skills, which depend to a large extent on phonemic awareness.

Phonological awareness

Phonological awareness is a broader, more general term that refers to the sounds of speech as distinct from their meanings, in particular an understanding of the ways that oral language can be subdivided. Phonological awareness has been described as a continuum of abilities beginning at the simplest level with rhyme awareness, moving up to an awareness of words within sentences, syllables within words, onsets and rimes (/b/ - /at/, /th/ - /in/), and finally the perception of individual sounds within syllables and words (Chard & Dickson, 1999).

Phonemic awareness, then, is the most refined (or most difficult) level of phonological awareness. Understanding this continuum is important when working with struggling readers. You may discover that most adults have awareness at some level, although phonemes escape them. In fact, individuals with a reading disability may never acquire complete awareness at the phoneme level, although they may eventually learn to manipulate onsets and rimes (Bruck, 1992).

Content of phonemic awareness training

The National Reading Panel identified six phonemic awareness tasks (listed below) for assessment and instruction (NICHD, 2000, p. 2-10). Although they are not necessarily listed in the order in which they should be introduced, common sense suggests that the first couple of tasks are simpler and may be prerequisites for the more difficult ones.

- *Phoneme isolation,* which requires recognizing individual sounds in words, for example, "Tell me the first sound in **paste**." (/p/)
- *Phoneme identity,* which requires recognizing the common sound in different words. For example, "Tell me the sound that is the same in **bike**, **boy**, and **bell**." (/b/)
- *Phoneme categorization,* which requires recognizing the word with the odd sound in a sequence of three or four words, for example, "Which word does not belong? **bus**, **bun**, **rug**." (**rug**)
- *Phoneme blending,* which requires listening to a sequence of separately spoken sounds and combining them to form a recognizable word. For example, "What word is /s/ /k/ /u/ /l/?" (**school**)
- *Phoneme segmentation,* which requires breaking a word into its sounds by tapping out or counting the sounds or by pronouncing and positioning a marker for each sound. For example, "How many phonemes are there in **ship**?" (three: /sh/ /i/ /p/)

- *Phoneme deletion,* which requires recognizing what word remains when a specified phoneme is removed. For example, "What is **smile** without the /s/?' (**mile**)"

NICHD, 2000, p. 2-10

Why Is Phonemic Awareness Important?

Phonemic awareness is a foundational ability, required for developing decoding skills (Chard & Dickson, 1999). English is an alphabetic language, which means that written English uses symbols (letters) that represent the sounds in spoken words. But when "sounding out" a word, we not only must (1) know and be able to produce the sounds the letters represent; we must also be able to (2) blend those individual sounds as we hear them in sequence, and (3) recognize the word. Beginning reading instruction often focuses on step 1, which is the heart of the phonics approach. We teach beginners the sounds of the letters, thinking that is all they need. But for many learners, the process breaks down at steps 2 and 3 because of a lack of phonemic awareness.

Think about the learner quoted earlier who said, "they never took me back far enough" (Podhajski, 1998). It's not enough to memorize the sounds the letters represent if a learner can't make use of that knowledge because he doesn't perceive the individual sounds in a word. How can a struggling reader blend the sounds and recognize the word if his brain doesn't process the individual sounds? For this reader, the string of sounds doesn't automatically translate to a whole word. Similarly, how can a writer sound out a spoken word to guess at its spelling if he doesn't "hear" those sounds? Phonemic awareness allows readers to use phonics to identify words while reading and to spell words as they write.

PRINCIPLE 2

Adult nonreaders have virtually no phonemic awareness ability and are unable to consistently perform, on their own, almost all phonemic awareness tasks (Kruidenier, 2002).

PRINCIPLE 3

Adult beginning readers, like all beginning readers, including children, perform poorly on phonemic awareness tasks that require phoneme manipulation. The ability to perform more complex operations with phonemes generally increases (in adults without a reading disability) along with reading ability until word analysis is established (Kruidenier, 2002).

Who Needs Phonemic Awareness Training?

Research tells us that adult nonreaders have almost no phonemic awareness and adult beginning readers also have phonemic awareness deficiencies (Kruidenier, 2002). Even intermediate ABE readers may have somewhat limited phonemic awareness (Read, 1988). Research also suggests that adults at the lowest literacy levels may profit from direct instruction to build phonemic awareness (Kruidenier, 2000). Learners at the next level—those with some independent reading ability—may also benefit.

On the other hand, the research on phonemic awareness deficiencies may not apply to ESOL adults who can't read English. You shouldn't assume that these "nonreaders" have phonemic awareness deficiencies. Other factors, including a limited English vocabulary, are more likely.

How Can We Assess Phonemic Awareness?

Not all adults need phonemic awareness assessment and instruction. If you are working with beginning literacy learners, you should be using a structured curriculum that includes initial assessments. However, you may want a test to make referral decisions or a diagnostic measure (for example) for a mid-level learner with poor decoding skills, to get more information about the nature of the problem. For these purposes, you may use tests or alternative measures.

Alternative Assessments

Alternative assessments may be useful for both initial identification of strengths and needs and progress monitoring. Assess skills informally by asking learners to perform one or more of the tasks identified by the National Reading Panel: phoneme isolation, phoneme identity, phoneme categorization, phoneme blending, phoneme segmentation, and phoneme deletion (NICHD, 2000, p. 2-10).

You may check on these abilities by scheduling one-to-one time with a learner and asking her/him to perform samples of these oral tasks. You may also incorporate informal "check-ups" in your regular lessons:

Example

"What sound do you hear at the beginning/end of (new vocabulary word)? Let's practice blending the sounds of the letters."

You should include a sampling of several types of tasks because abilities vary and some tasks are more difficult than others. Research suggests that segmenting and blending may be the most useful skills (NICHD, 2000), p. 2-4), but isolating sounds may be a good place to start for assessment.

Although informal assessment may give you a sense of the learner's abilities, you should be aware that your choice of tasks may not be a good sample. Assessment may be more complete and consistent if you use a test for placement, referral, or initial planning decisions.

Tests

Tests of phonemic awareness include samples of one or more of the six tasks described earlier. Because of the nature of the skill, these are oral, individually administered tests. A test may begin with simpler tasks that assess the ability to perceive larger phonological units, syllables, for instance, instead of phonemes.

Example

Syllable deletion:	Say **remember**. Now say it again but don't say /re/. (**member**)
Phoneme deletion:	Say **bake**. Now say it again but don't say /b/. (**ake**) Say **stack**. Now say it again but don't say /t/. (**sack**)
Phoneme segmentation:	Break each word apart and say each sound in order—**so** (/s/-/o/); **man** (/m/-/a/-/n/)
Phoneme blending:	Listen as I say the sounds in a word slowly. Then tell me what the word is—/f/ - /it/ (**fit**), /p/ - /op/ (**pop**), /s/ - /a/ - /d/ (**sad**)

A PHONEMIC AWARENESS ASSESSMENT PLAN

- ***Initial planning/placement:*** *Informal assessment activities or tests may be useful in identifying phonemic awareness skills and deficits. A formal test may be more accurate than other measures.*
- ***Ongoing progress monitoring:*** *Informal activities built into instruction are probably the best way to monitor growing phonemic awareness and identify problems.*
- ***Outcomes measurement:*** *Phonemic awareness is not an end in itself; it is important because it is required for developing decoding skills. A test of decoding skills may suffice as an outcome measure.*

What Kind of Phonemic Awareness Training Is Most Effective?

PRINCIPLE 6

Phonemic awareness and/or word analysis instruction may lead to increased achievement in other aspects of reading for adult beginning readers (Kruidenier, 2002).

Developing phonemic awareness is a step toward the goal of learning to read with understanding or improving reading ability. It is not an end in itself. We teach phonemic awareness when and for as long as necessary, and then move on when learners have enough ability to manipulate the sounds to enable them to use phonics in reading and spelling. And we teach phonemic awareness in combination with phonics instruction and other reading skills because the skills reinforce each other. In fact, research with children has shown that using letters to teach phonemic awareness is more effective than oral practice alone. This approach to phonemic awareness actually qualifies as phonics instruction, but if the primary focus of activities is on manipulating the sounds, they may also be understood as building phonemic awareness (NICHD, 2000, p. 2-34; Kruidenier, 2002).

Suggestions based on the research with children

- *Focus on one or two types of tasks at a time.*
- *Segmenting and blending may be most useful to learners.*
- *Use letters as well as sounds—writing or manipulating letter cards, for instance—as learners produce the sounds the letters represent.*

Kruidenier, 2002, p. 50

Since blending is required to sound out a word and segmenting is what we do when we're trying to spell a word, it makes sense to teach these. However, you should use assessment to see where to start.

Taking a systematic approach. Learners with very weak phonemic awareness need a systematic introduction to and practice of the various types of tasks over several days or weeks. For adult nonreaders and beginning readers, an idea from the children's research suggests that it may be most effective to provide phonemic awareness instruction immediately (Kruidenier, 2002, p.53).

Fortunately, you don't have to develop your own training program. Instead you can take advantage of the phonemic awareness activities that are built into a structured phonics curriculum. In fact, to work with beginning readers, you could consider learning more about one of the evidence-based reading programs.

Teaching phonemic awareness to adults

Some of the activities you will use in building phonemic awareness may seem childish. However, as explained above, they are vitally important for some learners. How do you deal with this sticky situation?

Experience with adult learners suggests that you will want to be careful when using materials developed for children (although you may be able to adapt them) and sensitive to the need for privacy if adults with minimal literacy skills are members of a class with varied skill levels. You should also remember to explain carefully why such activities are important to the achievement of reading goals that matter to the learners. Sometimes the connection between an instructional activity and a long-term goal is not obvious. Adults with learning disabilities, for instance, will likely need a clear "map" of the road to reading and frequent reminders of where they are on the journey. Understanding the relationship between daily lessons and the long-term goal may make phonemic awareness activities more palatable for you and the learners.

Also, remember that you should not expect adults to acquire perfect phonemic awareness as a prerequisite for beginning work on decoding skills. Research suggests that some disabled readers may never become capable of the most sophisticated kinds of phoneme manipulation, but may learn to use onsets and rimes (Bruck, 1992). Be aware of phonemic awareness limitations and choose strategies carefully, but don't put off phonics instruction waiting for perfection.

Finally, keep in mind that even for beginners, phonemic awareness activities and decoding practice are not the only focuses of instruction. To maintain an emphasis on meaningful, goal-related reading, try using simplified texts on adult-interest subjects, learner-dictated stories, taped readings and other assisted-reading strategies to build vocabulary and improve comprehension.

What Does Phonemic Awareness Training Look Like?

If you are working with beginning readers you should use a structured curriculum that ensures systematic instruction and provides a framework for learning activities and lessons. These programs include phonemic awareness training. The sample on the next page is just an example of the type of activity often used to develop phonemic awareness. It does not represent any particular approach or program and is not intended as a model for instruction.

SAMPLE ACTIVITY: RECOGNIZING THE /S/ SOUND

Goal:
- Build awareness of a consonant sound in the initial position in words

Background:
This activity might be used with non-readers or beginning readers as one of the first steps in building phonemic awareness. The activity is limited in focus:
- It involves only simple phonemic awareness tasks (isolation and categorization).
- One sound only is practiced. The /s/ sound is often one of the first consonant sounds introduced because it is a continuant, which makes it easy to blend with a vowel. A speaker can continue the /s/ and slide into the next sound, as in /s/-/s/-/s/-/a/-/d/ (**sad**). (Stop sounds like /b/ and /t/, on the other hand, cannot be continued, so they're harder to blend. For instance, try holding onto the /b/ to blend it with a vowel, as in **bad**.)
- Awareness is limited to the initial position only.

Focus:
- Recognize /s/ at the beginning of words

Materials:
- Curriculum or teacher-made materials

Grouping:
- Small groups or one-to-one

Directions:
1. Explain to learners the purpose of the listening activities to come, and make the connection to the goal of independent reading. Being aware of the sounds in words will help them learn how to recognize and spell words on their own.
2. Make the sound /s/ several times, asking the learners to listen carefully and watch your mouth as you say it.
3. Show several items (or pictures) that begin with /s/ (**sock**, **soap**, **soup**, **sandwich**, **sign**) and say the words one at a time, asking the learners to repeat after you. (Avoid words beginning with consonant blends, like **stack**, or **skip**. It's easier to hear the /s/ when it's followed by a vowel.) Say the words again, exaggerating the initial /s/, and have them repeat again.
4. Hold up a card with the letter **s** on it and explain that most of the time **s** stands for /s/ when you see it in words.
5. Explain that you are going to name several things in the room and hold up the card every time the word begins with /s/. Demonstrate with six or seven items, and be sure that some of them don't begin with /s/.
6. Hand out **s** cards to each learner and have them all practice with you as you say several words, raising their cards when they hear /s/ at the beginning of a word.
7. Watch carefully to be sure everyone is able to perform this task. (In groups, it's possible, of course, to just do what the others are doing.)
8. Moving from one learner to the next, ask them to compare the initial sounds of two words: Does **bank** start like **sock**? Does **song** start like **sock**?
9. If they seem to be able to perceive the initial /s/ you could try some independent practice. Ask them to number their papers 1-10, and then call out ten words, one at a time. Tell them to write an **s** next to the number of any word that begins with /s/. (This assumes some writing ability—which most adult learners have—and knowledge of the numerals. This practice could also be done orally, using the cards.)

Next steps:
After students have learned one sound, you can compare it to the next sounds they learn, pointing out differences. (Where are your lips and teeth when you say /f/? When you say /s/? Or /m/?) When they've learned several sounds, they can practice by identifying the beginning sounds in words you speak, or they could practice independently by listening to words on tape. As they begin to work on phonics and can read a few words, they might also write (copy) words that begin with sounds they have studied. Working with sounds at the end of words might come next.

Phonemic awareness is taught along with other reading skills. Learners should be developing decoding skills and beginning to read as they continue to develop phonemic awareness. As they progress, you'll find numerous opportunities for quick phonemic practice activities, perhaps integrated with oral reading or spelling tasks.

Summary: Phonemic Awareness Tips in a Nutshell

- *Teach phonemic awareness explicitly and systematically to learners who have phonemic awareness deficiencies.*
- *Use letters as well as sounds in teaching the phonemes. Use a structured phonics curriculum to develop phonemic awareness and decoding skills.*
- *Focus on one or two types of phonemic tasks; segmenting and blending may be most useful.*
- *Be sure learners understand the connection between phonemic awareness activities and their long-term reading goals.*
- *Integrate short phonemic awareness activities within the reading lesson. In each lesson, try to address all needed components of reading instruction—phonemic awareness and phonics, fluency, vocabulary, and comprehension—as well as opportunities to experience and learn from adult-relevant materials.*

What Is Decoding?

Decoding is a word identification skill that involves using letter-sound correspondences to recognize words in print. Beginning learners use decoding to identify words when reading and to approximate the spelling of words when writing.

Phonics is an instructional strategy for teaching decoding that enables beginning readers to read words independently and accurately. And, of course, word reading is necessary for comprehension, the larger goal of reading instruction. But decoding skills don't work alone: they support other language-related processes at work in reading. The reader uses spelling, sound, meaning, and context clues in the process of identifying words (Adams, 1990).

The process works something like this:

1. Beginning readers learn letter-sound relationships and common spelling patterns (**ack**, **op**, **ake**, etc.)
2. They use this knowledge when they encounter a word in print that they don't recognize. They "sound out" the unknown word, arriving at an approximate pronunciation.
3. They match the approximation with words in their speaking vocabularies.
4. Then they check to see if the word they think it might be makes sense in the context. For instance, the word **color** might "sound out" as **collar** or **color**, so readers use context clues to see which word makes sense and then make a final identification.

Why Is Decoding Important?

Research and experience tell us that unless children and adults acquire the ability to identify words independently and rapidly, they will not be able to read fluently enough to read with understanding. Because English uses letters to represent the sounds in spoken words, written language is a sort of code. Beginning readers must learn to break that code (hence the term "decoding") by matching letters with the sounds they represent. Without this ability, new readers must memorize thousands of words by sight in order to read even fairly simple adult texts—a very inefficient approach. In addition, they have limited strategies for identifying words not already in their sight vocabularies.

PRINCIPLE 4

Adult beginning readers, like other beginning readers, have difficulty applying letter-sound knowledge in order to figure out new or unfamiliar words while reading, although they are generally better at recognizing familiar sight words than children who are learning to read (Kruidenier, 2002).

Who Needs Phonics Instruction?

Adult nonreaders and beginning readers almost certainly need to learn to recognize and use the letter sounds and common spelling patterns in our language. They will use decoding primarily as a tool for recognizing/decoding words whose meanings they already know. (They also use it to generate pronunciations for words whose meanings they don't know, but they encounter such words infrequently because beginning readers usually are reading simple texts.)

This description highlights a distinction between skilled and beginning readers. Beginning readers are focused on "getting the words off the page." Recognizing the word

is their primary task and frequently their most pressing problem. New readers confront unknown words all the time, even in fairly simple texts. But most of these unknown words are in their speaking vocabularies, and if they can decode them, their problem is solved. Skilled readers also encounter unfamiliar words, but the problem for them is not decoding. A word is unfamiliar if they don't know what it means. Skilled readers generate a pronunciation fairly automatically and then use other strategies to arrive at the meaning: using context clues or consulting a dictionary.

Obviously, then, for beginning readers phonics instruction is very important. Intermediate readers may also benefit. If their decoding skills are less than automatic, phonics review and practice may lead to more accurate word identification, and hence increased reading speed and fluency.

How Can We Assess Decoding Skills?

Again, not all learners will need this kind of assessment and instruction. A structured curriculum is recommended for beginners, and these programs include assessments. For mid-level learners with gaps in their decoding skills, a test will identify which phonics elements should be taught or reviewed.

Tests of decoding skills/word recognition

These tests are oral, individually administered instruments. They typically require learners to identify words presented in isolation. However, because simple words may be in the reader's sight vocabulary (words recognized by sight without conscious decoding), tests often include pseudo-words, like **sek**, **tob**, and **gled**. The same objective may be accomplished by using real, but uncommon words, like **tad** and **hag**.

Once again, we can't be sure about the use of these instruments for ESOL adults. Research does not offer specific assessment guidelines for these learners.

Tests usually include samples of words with several vowel and consonant sounds; consonant digraphs, like **sh** and **th**; common rimes, like **at** (in **bat** and **cat**) and **an** (in **man** and **ran**); and at higher levels, multi-syllabic words. Analysis of test results reveals which sounds and patterns the reader knows and which need to be taught.

Some tests also assess word recognition with graded lists of high-frequency words. This type of measure identifies the words a reader recognizes on sight.

Some Informal Reading Inventories (IRIs) also include decoding measures. (See fluency tests in Chapter 5 for details on IRIs.)

A DECODING ASSESSMENT PLAN

- ***Initial planning/placement:*** *A test like the ones described above may be useful.*
- ***Ongoing progress monitoring:*** *If you adopt a structured curriculum, periodic assessments are likely to be included. In addition, of course, you may use your own tests or informal observations to make daily instructional decisions.*
- ***Outcomes measurement:*** *For those learners who are working on developing decoding skills you will need a test with equivalent alternate forms for pre- and post-testing.*

PRINCIPLE 5

Participation in ABE programs may lead to increases in adult beginning readers' word analysis abilities (Kruidenier, 2002).

PRINCIPLE 6

Phonemic awareness and/or word analysis instruction may lead to increased achievement in other aspects of reading for adult beginning readers (Kruidenier, 2002).

PRINCIPLE 7

Word analysis may be taught using approaches that include direct instruction in word analysis along with other aspects of reading (Kruidenier, 2002).

What Kind of Phonics Instruction Is Most Effective?

Research indicates that explicit, systematic phonics instruction is most effective for beginning readers (Kruidenier, 2002, p. 49; NICHD, 2000, 2-94). This approach is in contrast to instruction that addresses phonics skills incidentally, as the need arises.

For example, a teacher who takes the incidental approach might use the occasion of a problem word encountered in class as an opportunity for phonics instruction. So when learners need to spell a word or when they encounter an unfamiliar word in their classroom reading, the teacher might decide at that point to teach the relevant phonics principle. In explicit, systematic phonics instruction, a body of phonics content—letter-sound correspondences and common word patterns—is identified, logically sequenced, and directly taught. Taking this approach does not mean that phonics is the *main* focus of the reading lesson in such classrooms, just that it *is* a focus, not an occasional activity. Phonics instruction is a means to an end; the end is reading comprehension.

Taking a systematic approach

The research identifies different approaches to systematic phonics instruction that have been used with children, but doesn't suggest that any one approach is more effective than the others (NICHD, 2000, p. 2-89 & 2-93).

- *Synthetic phonics:* Learners are taught the letter-sound correspondences and then taught to blend the sounds to identify words.
- *Analytic phonics:* Learners do not pronounce the sounds in isolation; instead they analyze the sounds in a word that is already identified.
- *Phonics through spelling:* Learners break a word into its sounds and then identify the corresponding letters to spell the word.
- *Phonics in context:* Learners are taught to use both letter-sound correspondences and context clues to identify unfamiliar words.
- *Phonics by analogy:* Learners use parts of words they already know to identify unfamiliar words by analogy. An example of phonics by analogy is learning how to use onsets (initial letter-sounds) and rimes like **ack**, **op**, and **et** (also called phonograms or word patterns) to sound out words.

Many of the studies reviewed by the National Reading Panel used one or more of these, sometimes in combination. While the literature on the efficacy of these approaches is inconclusive, synthentic phonics is more commonly used.

Textbooks and other programs. Phonics-based textbook series and other packaged programs may provide structure for you and the learners and simplify decision making about content and sequence. Contact a reading specialist in your school district, reading faculty members at local colleges or universities, or adult education staff development providers for recommendations of a scientifically based phonics curriculum or basic reading series.

Using proven programs of instruction. For adults with extremely limited decoding skills, you may need training in a program especially designed for such learners. Several

highly structured programs have been proven to be effective in teaching people who have reading disabilities. Since many adult beginning readers have the characteristics of a reading disability (Chall, as cited in Kruidenier, 2002), one of these programs may be what they need.

Content and sequence. If you plan to adopt a textbook series or other program to form the basis of your phonics curriculum, the content and sequence will be determined for you. A brief sketch of the content for early phonics instruction is listed in Appendix B.

Problem-solving strategies for decoding. Because decoding isn't always enough, teach learners how to use other strategies in concert with phonics. For example, a beginning reader could learn this sequence for identifying an unknown word:

- *Step 1:* Try to sound it out from left to right. (Do you recognize the word? Does it make sense in the sentence? If yes, go on reading.)
- *Step 2:* If not, try a different vowel sound (long instead of short **i** for instance) or look for a rime or syllable you recognize (e.g., **ack**, **ing** or **tion**). Then put the parts together and try again. (Do you recognize the word? Does it make sense in the sentence? If yes, go on reading.)
- *Step 3:* If not, read to the end of the sentence again and think of a word that makes sense. (Does this word match some of the letter sounds? If yes, go on reading, but make a note to check on the word later.)
- *Step 4:* If not, ask someone for help.

Matching instruction to assessed needs

Not every learner needs a comprehensive introduction to phonics. Some adults may need only to brush-up on skills or fill in specific gaps in phonics knowledge, e.g., work on long-vowel sounds and diphthongs (**au**, **aw**, **ou**, **ow**, etc.). Still others may have little difficulty with short words, but don't know how to approach multi-syllabic words. If you do initial assessment of (at least) all beginning readers, you will get an idea of what each individual needs to work on.

Practice-text materials for beginning readers. No matter which approach to systematic instruction you take and no matter which sequence you follow, practice is important. It takes immediate and plentiful practice to get decoding skills and knowledge into long-term memory and enable learners to apply what they've learned rapidly and automatically.

One way to get practice is to read and reread words on lists and flash cards. Learners may read on their own or aloud with a partner, noting the words or sounds they know and the ones they need to work on.

But they won't often read words in isolation outside of the classroom, so even beginners need practice reading words in context. The most efficient way to do this is to use controlled-vocabulary texts, which include many examples of words that exemplify the elements previously taught and no unfamiliar words that the learners can't decode with their current skills.

For example, a basal reading series might introduce ten consonant sounds, three vowel sounds, and 15 common sight words in the first three lessons. The stories in lesson three, then, would use only words previously introduced or words that contain those ten consonants and three vowels. Obviously, these restrictions seriously limit the early sentences and stories! If you are not using a basal reading series, you may compose these simple texts yourself or make a list of decodable words and ask the learners to create sentences and stories using them.

Simple, controlled-vocabulary texts may appear childish and you may reasonably question whether adults can possibly find this material interesting and worth reading. However, as long as you show that you respect them as adults, keep their records confidential, provide privacy when necessary, and demonstrate that you are sensitive to their individual reading goals, you may find your concerns are unfounded, especially if you also explain how these texts will help to reinforce their growing reading skills.

Beginners know they need basic instruction and most often are willing to do whatever it takes to become functional readers. They need to experience success so they can feel confident about their ability to learn, and controlled texts increase the likelihood that they will read accurately—perhaps for the first time in their lives. And of course, as they acquire a larger body of phonics knowledge and sight words, they read more interesting materials. As long as they can feel successful and see progress, they are likely to accept the instructional materials you use.

Finally, no one is suggesting that these controlled texts are the only materials that adults will use in your classroom. Authentic materials related to individuals' goals, life needs, and interests should also be an important part of reading lessons. (See page 46 for ideas on accessing adult-interest materials.)

Adolescents and very young adults who are poor readers may be particularly sensitive about their skill deficiencies and unwilling to be singled out from their peers for special instruction, perhaps because they had plenty of experience with that sort of treatment when they were in school. They may not respond well to some activities that work with more mature learners, so you might need a different approach. In addition, you might consider getting access to their school records to learn about services they have received and still may be entitled to receive. For information on a program for adolescents, get the book, When Adolescents Can't Read: Methods and Materials That Work *(Curtis & Longo, 1999).*

What Does Phonics Instruction Look Like?

If you are working with beginning readers you should use a structured curriculum that ensures systematic instruction and provides a clear framework for learning activities and lessons. Many phonics programs have defined (even scripted) instructional procedures and routines.

The sample on the next page is intended to give you an idea of the kind of activity used to teach decoding skills. It is a generic outline of the components of an activity, not a detailed teaching guide. It is not based on any particular curriculum or program and is not intended as a model for instruction.

SAMPLE ACTIVITY ON INITIAL R-BLENDS

Goal:
- Improve decoding skills

Background:
- This activity is intended for a group that has been working on decoding skills, has studied all the consonant sounds and long and short vowel sounds, has worked with onsets and rimes, and knows many of the common patterns (**ay**, **ill**, **ip**, **at**, **am**, etc.). In this activity they are introduced to initial consonant blends. The activity is narrowly focused (one blend only) and should be explicitly taught, including several opportunities for learners to say, read, and write the letter combination and words being taught.

Focus:
- Introduce or review the initial consonant blend **tr**

Materials:
- Curriculum materials

Grouping:
- Small groups and/or one-to-one

Directions:

1. Review the /r/ sound by asking the learner(s) to read flash cards with words beginning with **r**.
2. Explain that **r** often combines with another consonant sound at the beginning of words, and give several examples of words beginning with **br**, **cr**, etc. Be sure to say and write the words, and point out the **r**-blends.
3. For this activity, focus on **tr** words only, so the learners hear several similar examples. Write several **tr** words on the board and point to each as you read them. Examples: **tree**, **try**, **truck**
4. Pronounce the words carefully, perhaps exaggerating the initial sounds. Ask what the words have in common. Then have the learners pronounce the **tr** blend and each of the words several times.
5. Using letter cards and/or an overhead transparency, do a visual and oral demonstration, blending the two sounds as you speak, while putting the two letters together.
6. Ask the learners to copy the words, writing each one three times, underlining the **tr** at the beginning, and reading each word aloud, running a finger under the letters as the sounds are spoken.
7. Add the **tr** onset to several rimes the group has studied: **ay**, **ip**, **ick**, **ap**, **ail**, **ain**. Begin by reviewing a series of words in one of the patterns, and adding the **tr** onset last.

   Example
   may
   lay
   pay
   say
   tray

   Then introduce the other rimes, having the learners work with the words in various ways: reading aloud, writing them, building words with letter cards, etc. Monitor and help as needed with this practice.
8. Give the learners a paragraph or story that includes several examples of **tr** words, and have them read it silently, and then aloud.

Next steps:

The remaining **r**-blends (**br**, **cr**, **dr**, etc.) would be taught at another time, to be followed perhaps by the **l**-blends (**bl**, **cl**, **fl**, etc.) and the blends that begin with **s** (**sc**, **sk**, **sp**, **st**, etc.),

How Can We Address Adults' Reading Goals If They Need Phonics Instruction?

Since the adults in ABE and family literacy classrooms often have varied skills, you will need to use assessments to identify those who need a complete, systematic phonics introduction, those who might need a brush-up and/or practice with multi-syllabic words, and those who don't need direct phonics instruction at all.

However, skills assessment is not your only guide in working with adults. You also must consider individual goals and interests if you want to maintain their motivation to learn and participate in your program. Here are some suggestions—based on the accumulated experience of adult educators—for providing research-based instruction and addressing real-life needs.

Meeting immediate needs

You might need to find quick ways to help weak readers gain access to print they can't read independently, but need to understand to help their children or to be successful at work, for instance. Adults' real-life needs often can't be put aside completely while they develop reading skills. Options for these learners (many of whom have learning disabilities or other special learning needs) should also include other strategies. If these immediate needs arise, you might (for example) read the material aloud to a learner, tape record it for her later reference, or help with filling out forms.

Accessing adult-interest materials. Encourage and enable all adults in the program to read meaningful stories and articles that appeal to their interests. Remember that the components skills reinforce each other; they don't develop in a strictly linear fashion. You don't have to put off "real reading" until the learners have all the background skills. In fact they may learn new word meanings through exposure to more difficult material.

But what about the words they can't read independently? You can't control the vocabulary in high-interest materials, so how can you meet the real needs of adult beginning readers?

- The time-honored **sight words** approach is still useful. You will need to teach the common, high frequency words (many of which are phonetically irregular) as sight words, because these must be rapidly, automatically recognized. Beginners also may need to learn other important words by sight because they are too long or too complex or too phonetically irregular to decode with their present level of skill. These might include survival words, like *danger* and *flammable*, or work-related terminology.

  The concern in teaching words by sight is that adults who have struggled with reading have often relied too much on their sight memories and you don't want to reinforce what may have become a bad habit of "guessing" based on the appearance of a word. Instead you want to help them build more efficient decoding strategies, using phonic and other clues.

But remember that the eventual goal of teaching word identification skills is to enable accurate, rapid word reading, which facilitates more reading and increased exposure to words, which in turn leads to storing those words in memory as "sight vocabulary." In other words, we want each reader to come to recognize as many words as possible by sight. Because of real and immediate needs, some words have to be learned that way initially.

- **Project-based instruction** may allow even poor readers to learn from print materials they can't read independently. If a class has chosen a high-interest subject or problem to study, small groups may work collaboratively on different aspects of the subject, and weak readers can contribute according to their abilities, perhaps reading short selections with the help of a tutor, viewing a video, and/or participating in group discussions. When the group members present their findings, skilled and less able readers alike may profit from each others' research.
- Reading *to* adults and using **taped readings** or **computer-based text readers** are "bypass" strategies to enable individuals to access important written material when they need it. The focus on reading instruction does not preclude other such options for meeting the immediate needs of adults and families and providing appropriate accommodations for adults with disabilities.

Summary: Phonics Instruction Tips in a Nutshell

- *Assess phonics skills of adult beginning and (some) intermediate-level readers (see Chapter 8 for an initial assessment plan).*
- *Provide explicit, systematic phonics instruction that is matched to the assessed needs of learners.*
- *Follow a defined scope and sequence of skills or adopt a structured phonics-based program.*
- *Provide practice of the phonics elements you have taught, including (perhaps) use of controlled-vocabulary texts.*
- *Do not make decoding skills the entire focus of the reading lesson. In each lesson, address the other needed component skills as well, and provide opportunities for learners to gain access to adult-interest reading materials.*

5

Fluency Development

What Is Reading Fluency?

Fluent reading is rapid, efficient, and largely free of errors in word identification. But fluency is more than speedy, accurate word reading; a fluent reader also uses appropriate phrasing and expression. A fluent reader knows how to group words into phrases, where to pause, and what to emphasize. In other words, fluent reading sounds like speech.

Why Is Fluency Important?

Comprehension is the goal of reading, and *fluency is required for comprehension* (NICHD, 2000, p.3-1). At a minimum, accurate and efficient word reading is necessary. Comprehension suffers when poor readers must focus on "getting the words off the page" and therefore aren't able to give much attention to the meaning of what they are reading. In contrast, fluent readers are able to focus on meaning because for them, decoding is automatic and effortless.

In addition, *some level of comprehension is required for fluency*. Once again, the components work together and reinforce each other. Fluency is part of the process of comprehension because fluent reading involves interpretation: grouping words into phrases and using word knowledge and punctuation to determine pacing, pauses, intonation, and expression. Even when words are read accurately, a flat word-by-word reading doesn't sound like speech and therefore doesn't convey the writer's entire message. In speech we group words into phrases, pause and slow down to make an important point, and emphasize key words.

Most texts provide clues to phrasing, emphasis, and tone: punctuation, bold print, descriptive words, and signal words or phrases (such as *finally*, *however*, *therefore*, *consequently*, and *on the other hand*.) Fluent readers notice and use those clues as well as their knowledge of how words form phrases, and are therefore able to read in a manner that preserves the meaning the writer intended to convey.

Who Needs Fluency Development?

Most adult beginning readers need work on fluency, because fluency depends on rapid, accurate word reading, and beginners are, by definition, struggling to read words.

PRINCIPLE 8

Fluency is an issue for adult beginning readers, intermediate readers, and perhaps for those reading at more advanced ABE levels. There are very large differences between adults with good and poor reading fluency, and adult beginning readers' fluency is similar to the fluency of children who are beginning readers (Kruidenier, 2002).

PRINCIPLE 9

Fluency may be taught to ABE students and fluency practice may lead to increases in reading achievement (Kruidenier).

An idea from research with children: Most ABE learners receiving reading instruction could be classified as poor readers. Fluency instruction may be especially effective for improving poor readers' achievement, regardless of their reading grade equivalent (Kruidenier).

However, even those with higher-level silent reading comprehension scores may need work on fluency and the underlying decoding skills and knowledge, if they are to progress beyond their current levels of reading achievement.

These intermediate-level readers are easy to miss if you look at silent reading tests only. You cannot know they need work on fluency unless you listen to them read. (However, if they work slowly on silent reading tests you might suspect they read slowly.) If you do oral reading assessments for speed and accuracy, you may discover that some intermediate-level readers need to improve decoding skills. Even those who score at a more advanced level on a silent reading test may read slowly in a word-by-word manner—or rapidly, but without expression and without attention to punctuation. Both types of less-than-fluent readers may have limited comprehension. Focused, systematic instruction and fluency practice may enable these learners to make significant gains in overall reading.

How Can We Assess Fluency?

There is no single best test or procedure for fluency assessment. Since fluency involves speed, accuracy, and expression, you will need more than one measure to address all these aspects of fluency *and* your three assessment purposes (initial planning, progress monitoring, and outcomes measurement).

Tests

Fluency tests measure oral reading accuracy and/or rate using paragraphs at increasing readability levels. Some also assess speed and accuracy in isolated-word identification. Fluency must be individually assessed. (See Chapter 8 for more on test tasks.)

Informal Reading Inventories. An Informal Reading Inventory (IRI) may also be an option. Although these instruments are not as reliable as more formal tests, they involve oral reading and include grade-leveled passages. The typical IRI calls for the learner to read (aloud) words in increasingly difficult lists, continuing until she reaches "frustration level," defined by a designated number of errors. Next the learner reads passages of increasing difficulty, and the administrator notes errors and types of errors in word identification (miscues). After each passage, the administrator asks comprehension questions. When the learner again reaches frustration level (based on comprehension errors and miscues) the administrator may begin reading passages *to* the learner and asking questions, in order to gauge listening comprehension, a measure of reading potential. These inventories typically yield scores that define *independent, instructional,* and *frustration* reading levels in terms of grade-equivalence.

However, an IRI is *not intended as a fluency assessment.* To get a fluency-focused score you must adapt the scoring procedure, considering the reader's word identification performance *only* (on the word lists and passage reading portions), not the comprehension questions (Strucker, 1997a).

Still another reservation regarding IRIs should be noted: scoring of these inventories is often unreliable. If you use such an instrument, be sure everyone who administers it

has clear, complete directions, as well as training, to ensure that they are all following the same guidelines for judging reading performance. (See Chapter 3 for details on reliability.)

Alternative measures

Timed oral reading samples are another option for measuring fluency. Even if you choose a test for initial assessment, you may decide to monitor progress less formally by taking periodic samples of students' oral reading. *Put Reading First* (Armbruster, Lehr, & Osborn, 2001) suggests this strategy for children, which might be adapted for adults as described below.

> *Select three brief passages at a learner's current approximate instructional reading level and ask him to read each one for exactly one minute, reading as rapidly and accurately as possible. Then count the number of words read in each passage, and compute the average words read per minute for the three passages. Next, count the number of errors on each and compute the average number of words read correctly per minute. For each administration of timed oral readings, you will have a words-read-per-minute (WPM) score and a words-read-correctly-per-minute (WCPM) score. If you use this kind of assessment periodically, learners may find it reinforcing to chart their progress in speed and accuracy.*

A grade-leveled textbook series (that you are not using for instruction) is a possible source for these passages.

This approach may be especially appropriate for ESOL students because they may read slowly, in part, because English is not their first and most "comfortable" language. Comparing an individual's performance over time may be more meaningful than looking at test scores based on national norms.

You may also use a scoring rubric to rate reading performances for phrasing and expression. A four-level rubric was used in a study of fourth-graders' fluency conducted by the National Assessment of Educational Progress (NAEP) (Pinnell, *et al.*, 1995). A six-point scale is described in the article, "Fluency: The neglected reading goal" (Allington, 1983).

Most readers will perform more fluently if they have read a passage silently before they read it aloud. You may decide to allow silent reading before you take an oral sample. If you do this, you must, of course, be sure you do it every time, so you can make valid comparisons between samples.

A FLUENCY ASSESSMENT PLAN

- ***Initial planning:*** *An oral reading test will provide information about entry-level abilities of adult learners. A sample of oral reading also may be used for this purpose.*
- ***Progress monitoring:*** *Timed oral reading samples may allow you and the learners to keep track of growth in reading speed, accuracy, and expression.*
- ***Outcomes measurement:*** *If fluency is a focus of instruction, you will need a test that has equivalent alternate forms for pre- and post-testing.*

PRINCIPLE 10

Fluency may be taught using approaches that include the repeated reading of passages of text, words from texts, and other text units (Kruidenier, 2002).

An idea from the children's research: To improve ABE readers' fluency (as well as word recognition and reading comprehension achievement), use repeated guided oral reading procedures (Kruidenier).

What Kind of Fluency Instruction is Most Effective?

Research suggests that *guided repeated oral reading* may improve one or more aspects of fluency as well as comprehension (NICHD, 2000, p. 3-28). These approaches call for the learner to read a passage several times, with guidance, until an acceptable level of fluency is reached, at which point she begins work on another passage at the same or a slightly higher level of difficulty.

Guidance may involve any of the following:

- Modeling—teacher or audiotape-assisted
- Simultaneous reading
- Assistance and correction
- Combinations of these options

Approaches to guided repeated oral reading

No one approach to guided repeated oral reading has been demonstrated to be consistently more effective than others. Several are described below.

Reading to the teacher or tutor. The learner reads a brief passage aloud, and the teacher or tutor provides help as needed to identify problem words. The teacher may also ask a couple of recall questions after the reading. Then the learner reads the passage aloud again one or more times, continuing until he can read it comfortably with few errors and can recall facts and details accurately. By engaging the reader in discussion and asking comprehension questions after each reading, the teacher maintains a focus on meaning and demonstrates to the learner that re-reading not only increases accuracy, but also results in better understanding. When fluency is achieved with one passage, the learner begins working on another one. In a slight variation on this approach, the teacher begins the session by reading the passage aloud before asking the learner to read.

Echo reading. The teacher or tutor reads a sentence aloud and the learner reads the same sentence immediately afterward, imitating the teacher's phrasing. They proceed through the text this way. Then the learner may attempt re-reading the text aloud independently. As an alternative, echo reading may be used as an additional level of support during other guided repeated reading procedures. For instance, when the learner finishes reading a passage aloud, the teacher may use echo reading with selected phrases or sentences that were especially challenging for the learner.

Dyad and choral reading. In dyad reading the teacher or tutor and learner read a passage or story aloud in unison. At any point, if the learner is reading comfortably, she may offer to read alone or the teacher may simply stop reading. If the learner begins to struggle or miscalls one or more words that have significance for the meaning of the passage, the teacher resumes reading. The teacher's role is to provide a model for fluent, expressive reading and to provide any words the learner can't quickly identify. They might practice this way for a few minutes during each class meeting, continuing to re-read the passage until the learner is reading accurately and smoothly, perhaps to a predetermined

standard for word errors (miscues) and/or reading speed. They would then begin work on another passage, gradually increasing the readability level of the material. The teacher may also ask comprehension questions after each reading.

In choral reading, a group of learners reads aloud in unison.

Paired or partner reading. Pairs of learners take turns reading and re-reading the same passage to each other, or they read aloud together as in dyad reading above. Learners may be similar in reading fluency or one may be deliberately paired with a better reader so he can provide assistance.

Tape-assisted reading. Using taped readings, a learner is able to work more independently, reading along while listening to the passage on tape. This could be done during class time or at home. Sometimes the learner is instructed to listen and read the passage a set number of times (usually at least three). Alternatively, the direction might be to re-read until she feels able to read it accurately and comfortably. The teacher might use commercial books on tape or make recordings of texts or authentic materials.

Performance reading. A class or group of learners practices reading a text to prepare for performance of a poem, play, or story. Because of its rhythm, poetry requires a measure of fluency to be appreciated, and a proper, expressive reading may require repeated readings (Rasinski, 2000). Poetry provides a natural, authentic reason to reread, and adults often enjoy modern poetry (Strucker, 1997a). Adults also may find children's poetry amusing, and those who are parents might enjoy preparing to share a poem with their children.

Learners also might use performance reading to present the findings of a project or problem they have studied together, selecting text from different sources to illustrate important facts or concepts. They might divide up sections or roles and practice reading their parts aloud to each other and the teacher. They also might tape their readings so each reader can assess his delivery and make improvements. Performances like these give learners a *real* reason to re-read text.

Cross-generational reading. As a variation on performance reading, parents might prepare to read to their children by re-reading stories with a teacher's assistance or a tape recording. (This activity is most appropriate for parents who find reading age-appropriate children's books sufficiently challenging to benefit from fluency practice. If they have very young children, appropriate stories may be too easy for many parents, and re-reading such material is therefore less likely to result in fluency gains.)

An idea from research with children: Use systematic phonics instruction (as opposed to non-systematic or incidental phonics instruction) to improve adult beginning readers' reading fluency (Kruidenier, 2002).

Phonics instruction and decoding practice

If word identification is part of the fluency problem, phonics instruction may make a difference. The teacher uses assessments to identify learners' specific decoding problems, and then provides focused, systematic instruction in phonics and/or sight word recognition.

Issues in fluency instruction

When you begin planning for fluency development, you will find several issues need to be resolved.

Appropriate difficulty level of materials. When choosing reading materials for fluency practice, how do you decide on the difficulty level? For fluency practice aimed at building speed and improving phrasing and expression, some authors suggest using material at the learner's *independent reading level*, to minimize word identification problems. If, however, you also want to work on the word-reading aspect of fluency, you may want a passage that is somewhat difficult—at the *instructional reading level*—so the learner gets decoding practice as well as work on the other aspects of fluency. As fluency improves you should increase the difficulty of reading material.

Text readability. You can calculate the reading grade level of any passage using a simple readability formula. (See Appendix C.) Your computer word processing program also may evaluate text for readability. If you are using commercial textbooks written to grade-level specifications as a source for oral reading passages, you might still check the readability with a formula, because materials may vary from one publisher to another. Once you have located a number of passages at different reading levels, you can match materials to each learner's assessed level.

If you have only a silent reading comprehension score from a standardized test, you should use it cautiously in this situation because such measures do not assess oral reading accuracy.

Learners' reading levels. The learner's oral reading level (grade equivalent) may be assessed with an informal reading inventory (IRI). Alternatively, if you are using passages from graded textbooks for fluency practice, you may simply have the learner try one or more sample passages and determine reading level based on word-reading accuracy. Of course you'll need a standard for defining levels, and these vary from one author to another. A conservative estimate would judge text to be at the learner's independent reading level if she is able to read it with 98-99% accuracy, or no more than two errors in 100 words. Instructional reading level may be defined as approximately 95-97% accuracy, or no more than five errors in 100 words. Then, depending on the focus of your practice activity (speed/expression or accuracy), you may choose an independent- or instructional-level passage.

Length of passage. There are no generally accepted guidelines, but time is a consideration. It is usually recommended that fluency practice should occupy only a small portion of each reading lesson, so you will need to choose passages that can be read aloud several times in a few minutes. Passages might range from 50 to 200 words, depending on the reading ability of the learner.

Type of text. This decision again depends not only on the reader's ability, but also on his goals and interests. In general, it makes sense to provide practice with various types of texts, including children's and adults' literature, samples taken from workbooks and other classroom materials, as well as authentic materials adults need to read outside of class.

Audiotapes. You may use commercial books-on-tape for this activity. However, these products are not intended as instructional aids, and the reader may read more quickly than an adult learner can follow. Tape players with variable-speed playback may solve this problem. Another option is to create your own tapes of selected passages. If you do this, you can provide support for the reader, reading slowly, for instance (while still modeling phrasing and expression), and signaling (perhaps by ringing a bell) at the end of a section or page.

Teacher assistance. How much help should you provide? When and how should you correct errors? One guideline for correcting miscues is to refrain from stepping in unless the reader makes an error that affects meaning. It's also a good idea to allow the reader a few seconds to identify the word or correct a mistake. Then you may provide the word—or a phonic cue if you think the learner should be able to figure it out. But you probably should not choose this moment to teach or review a phonics rule. In general, you want to avoid interrupting the flow (Strucker, 1997a). (However, you might ask the learner to re-read a phrase or sentence after correcting a word.)

Silent reading. Most people perform better in oral reading when they read silently first. You may want to encourage learners to read a passage silently before reading it aloud. After all, repeated reading activities are intended as learning and practice opportunities, not assessment tasks. Silent reading may allow time to identify words that might cause a reader to stumble, and also give her time to decide on the grouping of words into phrases. Figuring out when to pause and how to group are important decisions and readers don't always do it right the first time.

Fluency standards. You may ask, "How long does one continue to re-read a passage? Are we aiming for perfection? How fluent is fluent enough?" There seem to be no generally acceptable standards. And of course, fluency has three different aspects: speed, accuracy, and expression. So you may need more than one kind of standard.

Regarding speed, it's hard to say what's fluent enough. Reading rate guidelines for children at different grade levels may not apply to adult learners.

If you're working on accuracy, you probably have chosen a slightly difficult passage to build decoding skills. You might use independent reading level as your target, so that reading with 98-99% accuracy is the aim. At that point, you move to the next level passages. However, this is a high standard, and the learner might find the number of repetitions required to be unacceptable, so you might need to lower your expectations.

You might also use one of the fluency scoring rubrics to judge phrasing and expression (see References, Pinnell, *et al.*, 1995 and Allington, 1983), and then set your sights on an improved rating.

Of course, since this is not a high-stakes decision, perhaps teacher and learner judgment will suffice: If you and the learner are comfortable with the progress made and ready for a little more challenging material, you might try the next level.

What Does Fluency Practice Look Like?

Oral reading for fluency should be a regular activity for adults who need to improve speed, accuracy, or expression, but it doesn't have to take a lot of time. The sample activities below should require only 10-20 minutes each.

SAMPLE #1: ECHO READING ACTIVITY

Goal

- Improve reading fluency (smooth, expressive reading)

Background

- Explain that expressive reading that sounds like speech is easier to understand than monotonous, one-word-at-time reading. To understand this distinction, dysfluent readers may need examples of what phrase reading sounds like. Echo reading provides a model and plentiful practice. To be a good model, you will need to pay attention to your own phrasing. Following are two examples of how a sentence might be "chunked" in fluent oral reading.

  Your child / can learn / a lot / from poems / and rhyming books.

  Third / in a line / of cars, / the driver / waited impatiently / as the train / chugged by / and the red light / flashed / in the corner / of his vision.

Focus

- Phrase reading using an adaptation of the echo reading technique

Grouping

- Small groups (3-4), pairs, or one-to-one with teacher or tutor

Materials

- Because the focus is phrase reading, you need text with words the learners can easily decode and understand. In a multi-level class, that means you must group learners according to ability levels and select materials at an appropriate reading level for each group or pair. If the groups or pairs have worked together at other times, you might choose something you know they have all read with accuracy in the recent past. You might use a story, an article, or a selection from a GED workbook. Then choose a short paragraph for the activity. The complexity of sentence structure will vary according to reading level, of course, but even short sentences may be used to demonstrate how to group or "chunk" words.

Directions

1. Explain (or review) the importance of expressive reading, stressing the connection with comprehension. (If this is the first time you have worked on it, demonstrate the difference between choppy reading and smooth, speech-like reading. Read a sentence or two in a word-by-word manner, and then re-read it, grouping words into phrases.)

2. Review the purpose of commas and periods, and explain that in addition to using these punctuation clues, readers have to make their own decisions about grouping words and pausing.

3. Assign paragraphs to groups and ask the learners to read their assigned paragraphs silently once or twice.

4. Then, working with one pair or group at a time, read the first sentence aloud, pausing (obviously, but not too unnaturally) between phrases or groups of words, while the learners follow along, reading silently. Then ask each one to read the same sentence aloud with similar phrasing. After each one reads the sentence you may need to read it again, to provide a good model for the next learner. (There is no one right way to group words, and some readers may not copy your model exactly.)

5. Continue this process with each sentence in the paragraph. Repeat the activity (at the time or during another class period) if you see the need.

6. After class (but while it's still fresh in your mind!), make brief notes of each reader's performance so you can decide whether, how, and with whom to continue work on phrase reading.

   - While you are working with one group, the other groups could be reading their selections silently and re-reading aloud, round-robin style. Another option is paired reading of the same or another selection.
   - An aide or a volunteer would be helpful here, to allow two groups to work on echo reading at the same time. For those who need the most work on fluency, this activity also could be done one-to-one with an aide or volunteer tutor, while other learners are studying independently, reading along with tapes, or working in groups.
   - If you need to be more explicit with some readers, you could photocopy the paragraphs and have them mark each sentence by circling the words grouped into phrases or drawing a line between the "chunks."

SAMPLE #2: PAIRED REPEATED READING

Goal
- Improve reading fluency (speed)

Focus
- Paired reading

Grouping
- Learner pairs or one-to-one with teacher or tutor

Materials
- Choose material (short passages, readable in 1-2 minutes) for individuals or groups. Be sure the passages are a grade level or two below the readers' assessed reading levels so they can focus on speed, not decoding (see suggestions for echo reading activity).

Directions

1. Explain (or review) the importance of reading speed and be sure everyone understands the need for repeated reading to build speed.
2. Pair each learner with another who has similar oral reading ability. Ask the learners to read their assigned passages silently first, and be sure all the words are familiar. Circulate to help with decoding and definitions as necessary.
3. Then have each pair take turns reading to each other. Have the pairs time each other's reading and keep a record of the times. Each learner should read the passage at least three times.
4. Circulate and listen to the reading to see if some learners need to continue to work with the same passages during the next fluency practice, or if they should work on a different passage next time.
5. Collect the records of timed readings (it helps if they also write the text sources and dates on their record sheets) for monitoring individuals' growth in reading rate.

Summary: Fluency Tips in a Nutshell

- *Use a fluency measure with (at least) beginning and intermediate-level readers to get an initial assessment of reading speed, accuracy, and expression. (You may need more than one measure to address these different aspects of fluency.)*
- *Use guided repeated oral reading techniques to build reading fluency. A learner may read aloud to, or in unison with, a teacher or tutor, who provides modeling and assistance.*
- *Audiotapes allow adults to work independently on repeated oral reading.*
- *Preparing for "performance reading"—classroom presentations or reading to children—gives adults an authentic reason to re-read text.*

6

Vocabulary Development

What Is Vocabulary?

Vocabulary refers to knowledge of word meanings. Our vocabulary is the words we understand. The Partnership for Reading Web page on the National Institute for Literacy Web site defines *oral vocabulary* as the words we can use and understand in speaking and listening and *reading vocabulary* as the store of words we recognize and understand in print *(www.nifl.gov/partnershipforreading/explore/vocabulary.html)*. Although this seems straightforward, defining word knowledge gets complicated when we consider levels of understanding: We may be barely aware of a word, we may know its meaning in one context, or we may have a rich understanding of the term. (See "Issues in vocabulary testing," p. 59.)

Why Is Vocabulary Important?

Vocabulary is vital to reading comprehension in at least two ways. Oral vocabulary is the first key connection. When learning to read, a child or adult learns to connect printed words with words in his/her oral vocabulary. One way to make that connection is through decoding. Using letter sounds, the new reader in effect "translates" the printed symbols into meaningful words. But decoding is useful only if the words are already in the reader's oral vocabulary. Oral vocabulary is the basis for meaningful reading.

The second link between vocabulary and reading is an obvious one for learners at all levels: readers can't understand a writer's message unless they understand the meanings of most of the words in the text. As developing readers begin to read nonfiction in varied subject-matter areas, they often encounter words that are not in their oral vocabularies. For this reason teachers have long recognized the need to build vocabulary to allow readers to comprehend a variety of materials.

In summary, oral vocabulary is a key to early literacy development, and reading vocabulary is a crucial component of reading comprehension at all levels. For these reasons vocabulary has been described as "occupying an important middle ground in learning to read." (NICHD, 2000 p. 4-15)

Who Needs Vocabulary Instruction?

Adult beginning readers are not likely to encounter many words during reading lessons that are not in their oral vocabularies, so vocabulary instruction may be less important for them than it is for mid-to-high level readers (Strucker, 1997a). This is probably true regardless of curricular approach. Basal readers at the lowest levels use simple, everyday vocabulary. Approaches that base reading activities on learners' real experiences and materials taken from their lives also should (by definition) be using mostly words the learners are at least acquainted with. In fact, adult beginning readers may have larger oral vocabularies than children at the same reading levels because of their years of life experience (Kruidenier, 2002).[6] The primary task for these adults is to learn to recognize words they already know.

However, ESOL students may prove the exception to this rule. Even beginning readers may need vocabulary development simply because English isn't their first language. And at higher levels, readers may encounter unexpected problems. For example, English words that are similar to Spanish words and have common derivations ("roots") are often used very differently in English. So what would appear to be an advantage—the ability to make a connection with the first language—sometimes turns out to be the opposite.

Among native English speakers, many higher-level readers need vocabulary development for at least two reasons.

- Good readers learn new words through reading. They figure out the meanings of words by their use in a context, and, through repeated exposures in different contexts, acquire relatively rich understandings of many words in varied subject-matter areas. Adults who don't read well, usually don't read very much (Kirsch, *et al.,* 1993) and, therefore, have fewer opportunities to learn new words through reading. An additional problem is that some minimally functional readers learn to "bluff" their way through words/concepts they do not recognize, and thereby risk "learning" false or incomplete information about word meanings (E. A. McShane, personal communication, September 2004).
- Most adults in family literacy programs and other adult basic and literacy education programs have not completed high school and have not acquired basic knowledge in secondary school curriculum areas, like science and social studies. That means they have neither the vocabulary nor the required conceptual background to understand some words even if they are well defined. If their reading skills stalled in elementary school, their vocabulary development may have slowed or stopped long before high school.

As adults, these learners are stuck in the classic vicious cycle: Their limited vocabulary and background knowledge create comprehension problems, and because they have difficulty with comprehension they don't choose to read much, so they don't develop

[6] However, some adults with serious reading problems may have language-based learning disabilities and as a result, have limited oral vocabularies.

vocabulary through reading (Curtis & Longo, 1999; Stanovich, 1986). Explicit vocabulary instruction is necessary to enable these adults to read material related to their educational, vocational, and family goals.

How Can We Assess Vocabulary?

Vocabulary may be measured in different ways, and varied approaches to assessment measure different aspects of vocabulary. The National Reading Panel concluded that vocabulary is complicated to measure for these and other reasons (NICHD, 2000 p. 4-15 & 16).

Tests

Written tests typically use a multiple-choice format, and ask readers to match words within sentences with their correct definitions. These tests may be administered to groups, which is an advantage in classroom instruction, but they have a serious limitation. They are not always valid measures of word knowledge because the individual being assessed can answer correctly only those items she can read. Learners may make mistakes not because they don't know the meanings of words, but because they can't *read* the vocabulary words or other words in the test questions.

Oral vocabulary tests get around this problem. Oral tests of receptive (listening) vocabulary may ask a person to match a spoken word with the picture that represents it. Oral tests of expressive (spoken) vocabulary require the individual to generate a definition of a spoken word. (See Chapter 8 for more on vocabulary test tasks.)

Issues in vocabulary testing

- As noted earlier, even defining vocabulary is complicated. The concept of *oral* vocabulary as different from *reading* vocabulary is one distinction. Another is based on *receptive* and *expressive* functions. We understand many words (at some level) when we hear them spoken or see them in print but we don't understand them well enough to use them in speaking and writing. We all have more words in our receptive vocabularies (listening and reading) than in our expressive vocabularies (speaking and writing).
- In addition, at least three levels of word knowledge have been identified: unknown, acquainted, and established (Armbruster, Lehr, & Osborne, 2001).
  - An *unknown* word is completely unfamiliar.
  - If we are *acquainted* with the word, we understand it at a simple level. (Lots of words in our receptive vocabularies fall into this category.)
  - If the word is *established* in our vocabulary, we understand and use it accurately and flexibly.

  And of course, words derive much of their meaning from the context in which they are used. A word may mean one thing in one context and something different in another. If a reader is familiar with a word in one context, is it a "known" word?

- Finally, standardized vocabulary tests have several limitations. A written multiple-choice test may be a good measure of "acquaintance level" vocabulary, but won't allow the learner to demonstrate in-depth understanding or use of words. Another limitation has to do with decoding ability (as noted above): An adult may miss an item because he can't identify the word in print (or can't read the definition), even though he does know the meaning of the word. In addition, standardized tests (even oral tests) include only a small sample of the huge number of words learners may understand. We are not able to assess anyone's complete vocabulary. So as a measure of the learning resulting from a semester's instruction, for instance, a standardized test may not suffice because it is not sensitive enough to the specific vocabulary taught.

However, these limitations do not override the benefits of standardized oral vocabulary tests. As discussed earlier, reading problems fall into two broad categories: limited print skills (e.g., decoding) and limited meaning-related skills (vocabulary and comprehension). A standardized oral reading test provides reliable information about meaning-related skills. We need to know about strengths and limitations in students' knowledge of word meanings because this knowledge has a direct bearing on reading comprehension. In addition, standardized tests are useful for outcomes measurement and reporting.

No single measure will address all your needs and purposes, and it should not be surprising that standardized tests don't do everything well. A standardized vocabulary test is an important part of reading assessment. See Chapter 8 for details on the initial assessment process.

Be aware that ESOL adults will perform differently than native English speakers on vocabulary assessments.

Classroom/curriculum-based assessments. When assessing the outcomes of instructional units or activities, you may need specific assessments. The research on children suggests that teachers probably should design their own assessment activities and instruments to gauge the direct results of their vocabulary instruction (NICHD, 2000 p. 4-24—4-26). If you develop your own measures for ongoing monitoring, your assessment aligns directly with instruction.

Alternative assessments

One approach to alternative assessment integrates measurement with instruction in a natural, non-intrusive manner. For example, you might ask learners to use new words in a variety of ways—creating word maps, using words in journal entries, and developing word banks, for example. These activities obviously provide practice for learners, but at the same time they also create opportunities for you to observe and evaluate adults' growing ability to apply new skills and word knowledge.

A VOCABULARY ASSESSMENT PLAN

- ***Initial planning:*** *Analysis of the results of the vocabulary portion of the Test of Adult Basic Education (TABE 9 & 10) and the Adult Basic Learning Examination (ABLE) may provide useful information for early decision making. However, a standardized* **oral** *vocabulary assessment is more useful, especially when working with poor readers. Oral vocabulary tests provide a measure of word knowledge not influenced by reading ability, and oral vocabulary is important because it is an indication of reading potential. A learner can (potentially) comprehend written material that contains words she understands. If you are using a textbook or other structured program you may also assess learners' knowledge of the specific vocabulary in those materials.*
- ***Ongoing progress monitoring:*** *To measure the effects of vocabulary instruction you may use tests built into curriculum materials you are using or devise your own assessments.*
- ***Outcomes measurement:*** *A collection and/or summary of the results of classroom-based measures may provide a highly meaningful picture of vocabulary growth over time. To document outcomes for external stakeholders, you need a standardized vocabulary test with equivalent alternate forms for pre- and post-testing. The vocabulary subtest of a standardized reading test may reflect progress in general reading vocabulary over the long term.*

What Kind of Vocabulary Instruction is Most Effective?

Very few studies of different vocabulary teaching methods qualified for review by the National Reading Panel, and those that did qualify were extremely varied (NICHD, 2000, 4-16 & 4-17). Therefore, the Panel was unable to make judgments about the value of one approach over another. However, the Panel report states that the collection of vocabulary research does suggest that "a variety of direct and indirect methods can be effective." (NICHD, 4-17)

Direct vocabulary instruction

Following are suggestions from the research with children (Armbruster, Lehr, & Osborne, 2001).

Pre-teach words in instructional text. Get into the habit of analyzing reading materials to identify words that may be unfamiliar. Teaching the meaning of those words before the learners read the text improves comprehension of the material and builds vocabulary.

Ensure multiple exposures. To be sure learners encounter new words frequently, teach vocabulary they will use. For adults, this guideline suggests teaching words they will encounter in real-life settings, such as family or work-related terms. (Find lists of adult words in *The Reading Teacher's Book of Lists,* Fry, Kress, & Fountoukidis, 2000.)

Keep learners actively engaged. Be sure they use the new words they are learning. One way to do this is to choose words related to a class project, employment issue, or parenting topic, so you will be sure the group works with the words over an extended

period of time and learners have plenty of opportunities to use them in speaking, reading, and writing. This kind of project- and content-based instruction also builds background knowledge in a subject matter area and may introduce other new words you have not directly targeted.

Teach word-learning strategies. Give learners tools for discovering the meanings of words they encounter during independent reading.

- Introduce common prefixes and suffixes (e.g., **un**, **post**, **ful**, **ly**) and demonstrate how they alter the meaning and function of base words. (Using word parts like these to identify and define words is called *structural analysis*.)
- Teach specific strategies for using context clues to derive the meaning of unknown words (e.g., noticing a definition or explanation following the word and set off by commas).
- Teach learners how to use a dictionary.

Indirect approaches to word learning

Encourage wide reading in varied subject matter areas. Vocabulary is often acquired indirectly through reading. The context of an unknown word provides many clues to meaning. Be sure, though, that the reading material is not too difficult. If a text has too many unknown words, the reader will not have enough context clues.

Choosing words to teach

For direct instruction in general vocabulary, you might decide to teach several new words each week, perhaps choosing especially useful or difficult words (Armbruster, *et al.*, 2001).

- Useful words:
  - Signal words and phrases that mark relationships between ideas and information, like **therefore**, **in contrast**, **however**, **consequently**, **although**, **despite**
  - Idiomatic expressions, like **straight from the horse's mouth**, **a stiff upper lip**, **by the skin of your teeth**
  - Words in the news (select words used in continuing stories from local or national news)
  - Subject-matter terminology, e.g., for preparation for the GED, higher education, work-focused classes, or job training
- Difficult words:
  - Homophones (words that sound the same but have different spellings and meanings), e.g., **aloud** and **allowed**, **board** and **bored**, **cell** and **sell**, **brake** and **break**
  - Homographs (words that look the same but have different meanings), e.g., **bear** (animal), **bear** (support or carry), and **bear** (tolerate) or **content** (what's inside) and **content** (satisfied)

Regardless of the approach you take, be aware that you may need to provide many exposures and require active work with the words to get learners to the point where they remember and "own" the new vocabulary. You should have them write the word and spell it aloud several times, write sentences using the word, and perhaps create a semantic map to reinforce associations with other words (see graphic organizers section in Chapter 7).

Addressing background knowledge

The knowledge required to read with understanding goes beyond the level of individual words. A reader may know what all the words in a given passage mean (at some level, in some context) but not understand the passage at all.

In order to read various kinds of materials, we must understand the way language is used in different types of literature and the ways words are used in phrases and expressions. We need to know the specialized meanings and uses of words in different disciplines: biology, math, history, or psychology for example. And we need to be able to make inferences about word meanings ("read between the lines") because writers don't state everything explicitly. We often must have some knowledge of the subject to be able use context clues to define unknown words.

In other words, reading with understanding requires some prior knowledge of the subject matter and structure of a text. That means it may not be enough to teach a list of science words, for example. Unless a reader has knowledge of the larger concepts the words relate to and the relationships between the terms, the definitions won't be very meaningful and may not contribute much to comprehension of a passage using those words.

All of this means you may need to find ways to build at least some measure of background knowledge. For a short-cut approach to general knowledge development (Strucker, 1997a) you could begin by teaching subject-matter vocabulary in math, literature, science, or social studies (terms are identified in publications such as *The Reading Teacher's Book of Lists,* Fry, *et al.*, 2000). Then you might use videos, encyclopedias, and other informational digests to build broader knowledge.

You may also need to teach both words and content on an "as-needed basis." For example, when you pre-teach words in instructional text, you may discover you have to fill in some knowledge. And in goal-related or project work, if the learners are interested in reading further on a subject—perhaps child development, a balanced diet, or deciding whom to vote for—you will need to begin with some background reading as well as vocabulary building.

You also should pay close attention to background knowledge when working with ESOL students. Although many adults whose first language is not English have lived in this country for years, others are relative newcomers. Those who spent most of their lives in another culture may not be familiar with or have knowledge of aspects of American culture. That means even "common knowledge" must not be assumed. Be sure to check

in with learners frequently to be sure they understand and find ways to fill in this kind of background knowledge promptly and sensitively.

What Does Vocabulary Instruction Look Like?

The activity on page 67 builds vocabulary within the context of history. Teaching vocabulary within a context allows learners to acquire a body of related words and make strong associations among them. As they continue to read in a subject area they will probably have numerous encounters with the new words, increasing the likelihood that they will remember them and acquire a deep understanding of their meanings.

Taking this approach might mean working in GED preparation textbooks on science or social studies and building on some of the workbook topics by reading articles and other print materials. If interest is high, you might devote some time to a unit of study or a special class project. Since adults will need to read in various content areas related to their goals, you have numerous options for study: specific topics in literature, science, or social studies, parent-education or employment-related topics, and many others.

Through content instruction like this, learners acquire subject-matter knowledge and rich understandings of new words and concepts. In addition, conversations about word meanings and the texts in which they are found may improve their comprehension of other materials in the content area.

SAMPLE ACTIVITY ON U.S. IMMIGRATION HISTORY

Goal
- Increase vocabulary (and content knowledge) on the subject of U.S. immigration history

Background
- This activity is based on the assumption that the learners have been introduced to some basic word-learning strategies. Specifically, they should be familiar with ways to use context clues to derive word meanings. They should have learned some of the common "signal words" (therefore, however, in contrast, etc.) that provide clues to relationships among ideas and information in texts. Finally, they should have had some practice using a dictionary.

Focus
- This sample includes a variety of activities designed to build understanding of several words used in an article on the subject. The activities are among those used in the studies reviewed by the National Reading Panel (NICHD, 2002, 4-34 & 4-35).

Materials
- This example is based on an internet article on U.S. immigration during the period 1880 - 1914 (Scholastic, n.d.).
- Materials for vocabulary study should be at a reasonably comfortable level for learners, so they don't have to decode too many words. The vocabulary words may be somewhat familiar or easily decodable words for which learners don't know the meanings, but of course, some will be entirely unfamiliar (not encountered before). You will want to be sure to call attention to any spelling patterns, common prefixes and suffixes, or other special features of these words. You might also pre-teach those you think will be completely unfamiliar.

Grouping
- Large or small group, depending on reading levels

Directions
1. Identify words that learners might not understand and plan ways to work with them, perhaps by introducing them prior to the reading, or having the learners define the words as they encounter them.
2. Choose words to pre-teach. Consider those with one or more of the following characteristics:
- They are likely to be unfamiliar words, but are important for understanding the text.
- They are not well defined by context.
- They allow application of word-learning strategies previously taught.
3. Based on these criteria, pre-teach the following words: **migrate**, **Europe**, **China**, **ethnic**, **transcontinental**, and **urban**.
- Review the meanings of **immigration** and **immigrant** (introduced in another text). Then introduce the word **migrate**, reading a sentence in which it occurs, noting the similarity to **immigration** and **immigrant**, and then asking the learners to suggest the definition. Discuss briefly.
- Make sure learners know the meaning of **Europe**. Most immigrants during this period came from Europe, and it is not defined in the article. Use a map or globe to locate Europe.
- Read the following sentence aloud as learners follow along in their copies of the article.

  "Most newcomers were from southern and eastern Europe, although many people came from China to work on the transcontinental railroad" (Scholastic).

- Point out the word **although** and ask for suggestions about what the sentence says about China. (It's not in Europe.) Use a map or globe to locate China.
- Introduce **ethnic** with a definition and examples of how the term is used.
- Discuss **transcontinental**. Either define it directly and (perhaps) explain about the building of the railroad, or (if you've introduced prefixes) show how the prefix and root tell what the word means. (This option obviously works best if the learners are familiar with the prefix, **trans** and know the meaning of **continent**.)
- Check to see if they know the meaning of **urban**. If most learners are unfamiliar with it, refer them to the following sentence, and ask them to use the context to guess at the meaning.

  "Most who stayed settled in New York or other cities, in urban neighborhoods, organized by ethnic groups" (Scholastic).

- Point out the clues (New York, cities, neighborhoods) and discuss the meaning of **urban**. Be sure to reassure the group that the process of inferring meaning is not always a simple one, and it is not always possible to guess the exact meaning from context.
4. Have the group read the article silently, making note of any other unfamiliar words.

(continued)

SAMPLE ACTIVITY ON U.S. IMMIGRATION HISTORY (CONTINUED)

5. Have learners work with a partner and discuss the words they don't understand, share possible meanings with each other and the strategies they used to arrive at their conclusions. Have them write down their words and suggested definitions.
6. Bring the group back together and ask the pairs to share their discussions. Write on the board or chart paper the words and definitions they suggest.
7. Assign a word (or more than one) to each pair. Their task is to look it up in the dictionary, find the definition that best fits the way the word is used in the article, and write it down to share with the group. You should probably circulate to help with decisions.
8. Bring the group together again to share and discuss definitions. Write the consensus definitions (using understandable language!) on the board.
9. Have the learners make word cards to file in a vocabulary box (or add the words to their notebooks). They should include a definition and a sample sentence. If they write more than one definition, they should have a sentence for each.
10. Follow-up activities for reinforcement could involve writing additional sentences using the words or working in groups to create word or concept "maps" that give the definition, examples and/or characteristics of the object or concept, and a sentence using the word.

Summary: Vocabulary Tips in a Nutshell

- *Pre-teach unfamiliar words in instructional text.*
- *Ensure multiple exposures to words by teaching useful, "real-life" words and words learners will encounter in subject-matter texts they are studying.*
- *Engage learners in using and working with the words in several ways.*
- *Teach word-learning strategies like structural analysis, using context clues, and using a dictionary.*
- *Encourage wide reading of level-appropriate materials in varied subject-matter areas.*

7

Comprehension-Strategy Instruction

What is Reading Comprehension?

The definition of reading comprehension may appear to be both simple and obvious. In fact, it is anything but. Reading comprehension seems like a simple concept because for good readers, the comprehension process has become more or less automatic. Most of the time good readers don't think about what they are doing to make sense of text, to find important information, to learn how to do something, or to follow events in a story. That's why one might answer, "Comprehension is understanding what you read."

And it is, of course, but those who have studied reading prefer a definition that emphasizes that good readers work at understanding. They are active and intentional, *constructing meaning* by using the message in the text and their own prior knowledge. So comprehension involves *interacting with text* in various ways. Michael Pressley (2001) says that good readers:

- Are aware of why they are reading a text
- Gain an overview of the text before reading
- Make predictions about the upcoming text
- Read selectively based on their overview
- Associate ideas in text with what they already know
- Note whether their predictions and expectations about text content are being met
- Revise their prior knowledge when compelling new ideas conflicting with prior knowledge are encountered
- Figure out the meanings of unfamiliar vocabulary based on context clues
- Underline and reread and make notes and paraphrase to remember important points
- Interpret the text
- Evaluate its quality
- Review important points as they conclude reading
- Think about how ideas encountered in the text might be used in the future (Pressley, 2001, Active comprehension strategies section, para. 1)

Of course, we don't read everything this way. Readers who use all of the

strategies listed above have a serious need to learn and use the information in the text. If we are reading to locate a specific piece of information or reading for pleasure we don't use all of these strategies. Even so, the list reminds us that comprehension requires considerable work from the reader.

Definition of comprehension

The complex process of comprehension is described in the Rand report, *Reading for Understanding* (2002), in this way:

> *We define reading comprehension as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. We use the words* **extracting** *and* **constructing** *to emphasize both the importance and the insufficiency of the text as a determinant of reading comprehension. Comprehension entails three elements:*
>
> • *The* ***reader*** *who is doing the comprehending*
>
> • *The* ***text*** *that is to be comprehended*
>
> • *The* ***activity*** *in which comprehension is a part*
>
> *In considering the reader, we include all the capacities, abilities, knowledge, and experiences that a person brings to the act of reading. Text is broadly construed to include any printed text or electronic text. In considering activity, we include the purposes, processes, and consequences associated with the act of reading (Snow, C. E., 2002).*

Reading purposes

A further description of this active process is found in the National Reading Panel report, which says that "a reader reads a text to understand what is read, to construct memory representations of what is understood, and to put this understanding to use" (NICHD, p. 4-39). Readers also have more specific purposes:

- To learn about something (as in reading an interesting newspaper or magazine article)
- To research a subject or study for a test
- To be entertained
- To learn how to do something (as in directions)
- To find specific information (as in looking for the due date on a bill, finding details on the charges on a doctor's statement, or checking the TV listings)

To find specific information, we usually scan the text rather than reading word for word. But if we don't find the information that way, or if we don't understand what we find, we read more carefully. Obviously when studying or trying to follow the directions,

we care about understanding and remembering what we read. But even when reading for pleasure, it's important to understand. If we don't get it, it's not very pleasurable! So although we may take different approaches for different purposes, comprehension is the goal.

Underlying skills

Comprehension requires active, strategic thinking, but it also requires basic reading skills: decoding (word identification), fluency, and vocabulary (knowledge of word meanings). Unless decoding is automatic and reading is fluent, comprehension suffers. So another way to understand the reading process is to see it as a *hierarchy of skills* (Pressley, 2001). Beginning with letters and sounds, moving to identification of words, fluent use of those skills, and understanding of the meaning of words and sentences, *comprehension is the culmination of a series of processes*.

Why Is Comprehension-Strategy Instruction Important?

Comprehension is what reading is all about, so we know it's important. But if many readers acquire comprehension strategies informally (NICHD, 2000), p. 4-5), why do we need to teach it?

Awareness of comprehension breakdowns

First, evidence suggests that many young readers (and perhaps low-literate adults as well) are not aware that they have a comprehension problem: they often don't know how much they're missing. One researcher looking at readers' awareness of their comprehension processes found that "both young and mature readers failed to detect logical and semantic inconsistencies in the text" (Markman, 1977, 1981, as cited in NICHD, 2000, p. 4-39). In one study even 11- and 12-year-old readers demonstrated this lack of awareness. After listening as three or four samples of explicitly contradictory texts were read to them, 25-40% of the children failed to notice the inconsistencies most of the time. They thought they understood the material and didn't notice that it didn't make sense (Markman, 1979).

You may have noticed this lack of awareness in your work with adult learners. Sometimes discussion reveals their misunderstandings about a text or their lack of background knowledge in the subject matter. You can tell they are sometimes not aware that they aren't "getting it," or if they are aware at some level, that they don't know what's causing the problem. Your job is to figure out how to address the underlying causes of the comprehension breakdown.

Causes of comprehension problems

Adults may be reading without "demanding that it makes sense" or reading one word at a time without much thought, or failing to make important inferences and connections because of their limited background knowledge.

PRINCIPLE 11

Adults who qualify for ABE have poor functional literacy comprehension achievement. Although they may be able to perform simple comprehension tasks, such as recalling ideas from simple stories and locating a single piece of information in a simple text, they are often unable to combine (integrate and synthesize) information from longer or more complex texts (Kruidenier, 2002).

PRINCIPLE 12

ESL adults, on average, tend to have lower functional literacy comprehension achievement in English; the percentage of ESL adults among the ABE target population is greater than the percentage among the general population (Kruidenier, 2002).

Vocabulary and background knowledge. A lack of word knowledge and general "world knowledge" are common and significant problems for ABE and family literacy learners. People who don't read well don't read much, and therefore don't learn new words the way good readers do, through reading. In addition, adults who didn't finish high school probably don't have content knowledge typically acquired in science, literature, and social studies classes (Snow & Strucker, 2000). Reading requires inferences, and inferences are based on prior knowledge (Hirsch, 2003). Adults may know a great deal about their work and special interest areas, but much of what they read in class may require experience with "book learning."

Knowledge of the structure and conventions of different genres (types of literature) is also important to comprehension. Drama and poetry require different kinds of thinking than narratives do. In order to understand these forms of literature, readers must make more inferences, for instance, or pay attention to visual imagery and the rhythm of the language. Satire is sometimes hard to recognize if one is not familiar with this type of writing, and it's possible to entirely misunderstand the author's message. In addition, consumer informational literature, insurance notices, bills, and business letters often have special forms and use language in specialized ways.

So as you learn about the comprehension strategies detailed in the following pages, don't forget about building vocabulary and content knowledge. It's impossible to quickly make up for years of missed schooling and books not read, but you can't ignore the problem. (For additional details on vocabulary instruction and addressing background knowledge, see Chapter 6.)

Decoding. Other learners who have comprehension problems may actually be struggling with basic word identification and as a result, can't pay attention to the meaning. For these adults, who are missing the forest for the trees, reading may be more about getting the words off the page than getting to the meaning. Be sure to address their decoding problems, too, or you may end up treating effects and ignoring causes.

A trend in the adult literacy research: ABE adults' knowledge about reading, or their meta-comprehension, is more like that of children who are beginning readers. They are less aware than good readers of strategies that can be used to monitor comprehension, view reading as decoding as opposed to comprehending text, and are less aware of the general structure of paragraphs and stories. Comprehension strategies, such as how to monitor comprehension during reading and how to determine a text's basic structure, may need to be taught (Kruidenier, 2002).

Knowledge of comprehension strategies. Adult learners simply may not be aware of strategies they could use to achieve better understanding (Kruidenier, 2002). Poor readers probably don't know what good readers do. The process is mostly invisible, and efficient readers may appear to be simply "running their eyes over the text." It isn't obvious that a lot of strategic thinking is going on.

In short, you need to teach adult learners to use comprehension monitoring and repair strategies. They are not likely to develop these strategies without instruction (NICHD, 2000, p. 4-40), and we know this kind of instruction is effective: "The general finding is that when readers are given cognitive strategy instruction, they make significant gains on measures of reading comprehension over students trained with conventional instruction procedures" (NICHD, p. 4-40).

These strategies are tools that open the door to the world of print. One way to understand this phenomenon is to compare a reader who doesn't have these tools to a

child who doesn't know he is near-sighted. When he first gets glasses he is amazed at the detail that he didn't know others were seeing.

Who Needs Comprehension-Strategy Instruction?

We know that nearly one-half of American adults have Level 1 or Level 2 literacy skills, the lowest of five levels defined by the National Adult Literacy Survey (NALS) (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993). We also know that most adult learners in basic education and family literacy programs are among that number.

The NALS Level I group ranges (at the low end) from those who can't read and understand even simple texts to those who can perform simple literacy tasks, such as locating a piece of information in a short text. Level 2 adults are somewhat more advanced, but still are unable to put together information from more than one text to find an answer or solve a problem. These findings suggest that even those with basic reading skills are often unable to read well enough—to use skills and strategies flexibly enough—to make use of the information in the materials they read.

The focus of comprehension-strategy instruction

Because comprehension requires basic decoding skills and fluency, comprehension-strategy instruction is most often directed at mid-high level readers. In fact, the research reviewed by the National Reading Panel was conducted with students in third grade and above. However, even beginners need to engage in meaningful reading and therefore can benefit from learning to monitor their understanding and to apply some simple strategies as they read. Strucker (1997a) suggests that learners at fourth grade level and below need to be taught pre-reading strategies explicitly. For example, they should learn how to use pictures, section headings, and summaries to predict content and learn how to activate their prior knowledge by asking, "What do I already know about this?" (Of course, as noted above, their background knowledge in some areas may be limited, and when you conduct pre-reading activities with groups and notice a lack of knowledge or a misunderstanding of facts, you may need to provide some of this knowledge as efficiently as you can before continuing the reading activity. (See section on addressing background knowledge, page 65.)

We may conclude, then, that all the adults in basic education classrooms, regardless of their reading level, can benefit from comprehension-strategy instruction. Meaningful reading, including practice of important comprehension strategies, should be part of every lesson for all adult learners. (See section on listening comprehension on page 76 for a suggestion that supports weaker readers' participation in strategy-instruction activities.)

PRINCIPLE 13

Adults with a learning disability tend, on average, to have lower functional literacy comprehension achievement and are over-represented within the ABE target population (Kruidenier, 2002).

PRINCIPLE 14

Participation in an adult literacy program may lead to an increase in reading comprehension achievement (Kruidenier, 2002).

PRINCIPLE 15

Providing explicit instruction in reading comprehension strategies may lead to increased reading comprehension achievement (Kruidenier, 2002).

How Can We Assess Comprehension?

Because comprehension is the ultimate goal in reading, all the learners in your program need comprehension assessment. You are probably already giving a standardized test that measures silent reading comprehension.

Tests

Reading comprehension tests are available in written and oral forms. Most standardized instruments are written tests of silent reading comprehension, most often in a multiple-choice format. The learner reads a passage and answers questions about it. Curriculum-based tests, like those found in reading comprehension workbooks, are typically multiple-choice or short-answer tests. Informal reading inventories (IRIs) usually include oral comprehension assessments. The individual being assessed reads a passage or story aloud and then answers questions asked by the test administrator.

Alternative measures

Alternative measures may allow the learner to demonstrate comprehension in other ways (writing, speaking, or performing) and may allow you to glimpse other aspects of reading outcomes. Many classroom activities are natural opportunities for informal assessment. You may ask learners to write reactions to literature selections in their journals or to chart both sides of an argument. Classroom discussion and projects allow adults to think critically about texts and to apply their learning to their lives. Learners also may reach and display new depths of understanding by doing performance readings of poetry or drama selections.

A COMPREHENSION ASSESSMENT PLAN

- ***Initial planning:*** *Analysis of the results of standardized tests may provide details about specific areas of strengths and needs. Oral reading comprehension tests, like those included in informal reading inventories, often include listening comprehension assessments, which may be useful in identifying strengths of weak readers. Listening comprehension is an indicator of reading comprehension potential.*
- ***Ongoing progress monitoring:*** *You may find curriculum-based and alternative assessments to be most helpful.*
- ***Outcomes measurement:*** *For you and the learners, a collection of journal writings, a list of materials read, and workbook or other curriculum-based test summaries may provide meaningful information about the outcomes of reading instruction. For external stakeholders, you will need a standardized measure with equivalent alternate forms for pre- and post-testing.*

What Kind of Comprehension-Strategy Instruction Is Most Effective?

The National Reading Panel, in their review of the literature on comprehension, identified 16 categories of comprehension instruction in the research, but only the eight listed below appear to have "a firm scientific basis for concluding that they improve comprehension in normal readers" (NICHD, 2000, p. 4-42).

Comprehension strategies for readers

Most of the items in the following list are strategies that readers apply to construct meaning from text. You as a teacher must use appropriate *instructional strategies* to enable adults to learn and use these *comprehension strategies* as they read. These comprehension strategies are described in detail on the following pages, along with suggestions for instructional approaches.

- Comprehension monitoring
- Graphic organizers
- Story structure
- Question answering
- Question generating
- Summarization
- Multiple-strategies instruction
- Cooperative learning (an instructional approach)

An idea from the research with children: "To improve ABE learners' comprehension of texts used during instruction (those ABE learners above Grade Equivalent 3), teach them strategies that can be used during the reading process and that enable them to become actively engaged in understanding a text. Eight effective strategies have been identified: comprehension monitoring, cooperative learning, graphic organizers, story structure, question answering, question generation, summarization, and multiple strategies (combining the above when appropriate)" (Kruidenier, 2002).

Issues in teaching comprehension strategies

Review the general suggestions below and keep them in mind as you read about the comprehension strategies and plan ways to teach them.

Decision making and lesson planning. A great many strategies have been identified, so you will need to plan how and when to introduce them. The goals are (1) to help adults become proficient in using the strategies and comfortable enough to use them outside of class in independent reading, and (2) to ensure they know *when* to use them, so they use the right strategy at the right time. Achieving these goals will take time, so you should plan for plenty of practice and be sure to revisit the strategies once in a while. You will also need to be selective, choosing a few strategies that have multiple applications and introducing them one at a time.

Remember that adults who have busy lives and only a limited amount of time for education may take longer to get good at a strategy than children who have a reading lesson every day. Be careful to teach each strategy until it is well learned, and avoid overloading the learners.

Choosing materials. Basic decoding skills and fluency are required for comprehension, so think about the readability level when you are choosing materials for comprehension-strategy instruction. When working on a new strategy, learners will be more successful if the material doesn't require too much other work, that is, if the words and subject matter are familiar (Duke & Pearson, 2002). In a multi-level group, you could introduce the strategy by reading the material aloud so weaker readers can follow the thinking without struggling with the words. Then for practice they could work in small groups on different texts at appropriate levels.

Bear in mind, too, if you use a readability formula to gauge reading level, that some

formulas look only at the length of words and sentences, not the difficulty level of vocabulary. Knowledge of word meanings is also extremely important. If there are too many unfamiliar words in a text, it's not a good choice for comprehension-strategy learning. Of course, context clues may allow learners to define some terms, but without basic knowledge of the subject matter, a reader may be unable to use the clues. So be careful also to consider the knowledge base in your classroom when choosing materials. It works both ways: limited knowledge is a problem, but the background knowledge they do have can work in their favor. Adults can often comprehend material that appears to be too difficult when they know a great deal about the subject.

A trend in the adult research: "Integrating adult-oriented, contextually relevant material into literacy programs may lead to increased reading achievement" (Kruidenier, 2002).

Finally, remember that adults have practical goals in mind. Especially for work-related goals, they may need practice reading technical materials. And of course, beginning readers may need to comprehend everyday items, such as utility bills, medication directions, and government forms. Such texts often provide "very little context for guessing" (Strucker, 1997a), so you may need to teach vocabulary up front and be sure to provide practice with varied examples. Research suggests that using such real-life materials may result in gains in reading comprehension (Kruidenier, 2002).

Keep all these issues in mind when choosing materials for comprehension-strategy instruction:

- Decoding ability/reading level
- Background knowledge
- Interests
- Experience
- Goals

Listening comprehension. Many of the strategies you'll learn about on the following pages should be modeled and practiced orally. After all, reading comprehension is mostly thinking, and the strategies are related to language and linguistic comprehension generally, not only to reading (J. Sabatini, personal communication, July 2004). That's good news for teachers in multi-level classrooms, because it allows those who don't read well to participate in comprehension-strategy instruction.

Much of what you'll do to introduce the strategies to the whole group will obviously involve speaking—explaining and demonstrating by "thinking aloud" and at times, reading aloud. If you begin by reading a demonstration text aloud to the group, weaker readers may be introduced to the strategies at the same time as other learners. They may even practice the strategies after listening to a tape recording of the text.

As you know, adults often can understand materials that they cannot read. Using taped readings or reading to learners allows them to work with more difficult, adult-interest texts occasionally, instead of being limited to material they can read independently, much of which may be too simple to require the more advanced comprehension strategies. They can practice the thinking skills required for reading comprehension while using materials they understand and find interesting. They also may

be more able to participate in cooperative learning activities.

Of course, this is not to suggest that these adults do not need to build decoding skills and practice reading with materials they can read independently and fluently. All the reading components are important, and all needed components should be addressed with each learner.

One further caution may be appropriate regarding oral practice. Some adults who have reading problems may also have broader language-processing problems and/or attention deficits[7] and may find it hard to follow and recall lengthy chunks of oral language (E. A. McShane, personal communication, August 2004). You may notice these individual differences, and if so, you should, of course, adapt activities to ensure that all the learners are able to profit from comprehension-strategy instruction.

With these general thoughts in mind, read on to learn details about the specific strategies found to be effective with children by the National Reading Panel. As you read, bear in mind that you will need to select one or two strategies initially, try them out, and then continue using them to increase your own comfort with the strategies—and the learners', too of course. Some are easier to implement than others. You might consider beginning with a couple of the comprehension-monitoring strategies that follow.

[7] Individuals may have difficulty using any or all of the forms of oral and written language: speaking, listening, reading, and writing. Short-term memory problems create additional complications in using language. People with attention problems may have trouble concentrating and maintaining focus on a task and may be easily distracted by noise or movements in the immediate environment. These difficulties are common characteristics of individuals with learning disabilities or Attention Deficit/Hyperactivity Disorder (AD/HD)

1. COMPREHENSION MONITORING

These strategies are intended to develop meta-cognitive abilities in readers, that is, to help them think about their own thinking. Using these techniques, readers learn how to (1) actively monitor their understanding, (2) identify specific problems when comprehension breaks down, and (3) take steps to solve their comprehension problems.

You might try one or more of the following techniques. Most are broadly applicable to any kind of continuous text and various reading purposes.

Thinking aloud. One way to teach adults how good readers monitor their understanding is to show them how you do it. In other words, this technique is both a strategy for readers and an instructional approach you can use with any of the other comprehension strategies as well.

Here's how it works: You read a passage to the learners and think aloud about how you process the information (Davey, 1983; Kibby, n.d.). When you run into problems, you express your confusion and talk through your thinking as you solve the problems. Following are examples of strategies you might demonstrate:

- Stopping to reread or restate a difficult section
- Summarizing long sentences or other bits of text and putting them in your own words
- Looking back in the text to locate the person or thing that a pronoun refers to
- Identifying important or not-so-important information
- Using various strategies to identify or determine the meaning of an unknown word

Example

Teacher reads aloud (in italics) and thinks aloud (in brackets).

There were three main causes for the uprising.
[OK, I'll be looking for three causes.]

First and most important was the economic situation in the country.
[That's number one, the economic situation.]

(Reading on—further details)
There was also a popular movement gaining strength that centered on a young leader, etc.
[Is that number two? Hmm, I'm not sure. I'd better read on to check.]

(Reading on)
It's clear the uprising was rooted in recent, if not ancient history, as explained by journalist Browne, etc.
[Wait a minute. This is almost the end. Did I miss the third cause? I guess I had better read it again.]

(Rereading)
The chaos surrounding the earthquake and concern about the nation's ability to repair and rebuild contributed to the unrest.
[I wonder if this is it. It seems pretty different from the other two. I think that's it. I'll read on and see if I get any other clues. Maybe the writer has more to say about the three causes later on.]

After you demonstrate your thinking processes you can ask the learners to practice thinking aloud, too, to make them more conscious of their understanding and their thinking processes.

1. COMPREHENSION MONITORING (CONTINUED)

Restating. You can teach learners to stop periodically (after each section, for example) and try to restate what's been read in their own words. If they have trouble with this, they know they're not getting it.

Asking questions. Another way they can monitor their understanding is to ask themselves *who, what, when, where,* and *why* questions after each section or page. If they can't answer these questions they know to stop and reread. (Be aware that this strategy may work best with stories, news articles, and other narrative texts because they are likely to have all the "5 Ws" represented.)

Coding text. Readers are actively engaged with the content when they make notes as they read. You can teach a simple shorthand/code that allows the reader to make quick responses to the text. If writing in a book is not an option, learners can use small adhesive notes. The INSERT system is one example of such a code (Vaughn & Estes, 1986). It may be especially helpful as a study strategy.

Interactive Notation System for Effective Reading and Thinking (INSERT)

=	I agree
X	I thought differently
+	New information
!	WOW
?	I don't get it
*****	I know this is important

Monitoring and repair strategies. You also may teach specific strategies for solving comprehension problems (Davey, 1983; Kibby, n.d.). You describe and demonstrate the different kinds of problems that can arise while reading. Then, taking them one at a time, teach appropriate repair strategies, by modeling, providing guided practice, and independent practice.

Examples of comprehension problems:

- I can't read this word.
- I don't know what this word means.
- I'm confused. I don't get it. This doesn't make sense. This doesn't fit with something I know (from an earlier part of the text or the reader's life experience).

Examples of repair strategies:

- **Problem—*I can't read this word.***

  Step 1: If it's a short word, try to sound it out. If it's longer, look for familiar rimes or syllables and put them together to sound it out. (Do you recognize the word? Does it make sense in the sentence? If yes, go on reading. If not, try step 2.)

  Step 2: Read to the end of the sentence and think of a word that makes sense. (Does this word match some of the letter sounds? If yes, go on reading, but make a note to check on the word later. If not, maybe you don't know the meaning of the word, and that's why you don't recognize it. Go to the next strategy.)

1. COMPREHENSION MONITORING (CONTINUED)

- **Problem—*I don't know what this word means.***

  Step 1: Read the sentence to the end and see if you can make a guess about the meaning based on context clues (the meaning of the words around it and the rest of the sentence). Hint: Use context clues to decide what kind of word it is. (Is it, for instance, an action word, a name of something, or a word that describes something?)

  Step 2: See if the word has any prefixes or suffixes you know or any familiar word parts. Try using those along with context clues to figure out the meaning.

  Step 3: If you can't make a good guess about the meaning from context, decide if you *must* understand this word to understand the text. If not, skip it but make a note to look it up in the dictionary later. If the word *is* important, look in the dictionary or ask someone.

▶ **Be aware that none of these repair strategies is foolproof. Some texts contain few useful context clues, and even prefixes are sometimes unhelpful or even misleading. For example, the prefix *pro* usually means before, forward, or for. Knowing this meaning doesn't help define the word *proportion*.**

- **Problem—*I'm confused. I don't get it. This doesn't make sense. This doesn't fit with something I know.***
  - Reread the sentence or passage.
  - Read on to see if it gets clearer.
  - Try reading aloud.
  - Look at the words in the confusing part. Maybe a word is being used in an unfamiliar way. Check the word(s) in the dictionary or ask someone.
  - Talk about your problem with others.

▶ **Even common words have many uses. Pay attention to the words in instructional text and pre-teach words that are used in unfamiliar ways. If a reader encounters such a word that you haven't pre-taught, you may find this a good "teachable moment."**

2. GRAPHIC ORGANIZERS

Graphic organizers are diagrams or charts that visually represent the relationship of ideas and information. Most often they are used to illustrate the organization and structure of a text.

Texts are structured in different ways. Stories often introduce a setting, main and supporting characters, a problem, a series of events, and a resolution of the problem, typically in approximately this order (though not always). Learners may find "story maps" helpful in following and remembering events and characters. (See section on story structure, page 86.)

A nonfiction piece may be organized around a sequence of chronological events. History texts, for example, often present events in time order. The purpose of the writing may dictate other structures. An article may be organized to make a persuasive argument, with a main thesis and supporting details, or to define or describe something, with the introduction of the topic followed by a series of examples. Graphic organizers may help readers to become familiar with these common text structures and to understand the flow of information and ideas within a particular structure.

Organizers are most often used with nonfiction, especially content-area texts like science and social studies, and adult learners may find graphic organizers most useful for analyzing and summarizing content they need to learn. However, graphic tools also are useful for other pre- and post-reading activities: activating prior knowledge, setting a purpose for reading, and keeping track of what is learned.

Teaching graphic organizers. You will want to select a graphic tool (see the following examples) that matches your instructional objective, and begin by demonstrating how to use it with an article or story the class has read. In a multi-level class you might try tape recording the material or reading it to the weaker readers so that everyone has experienced the same text and all are able to participate.

Be sure to start with a simple organizer: It should be a tool, not a source of frustration. Carefully explain the purpose of the tool and *when* to use it. Then have the whole group compose one, with individuals suggesting entries. The next steps might be to ask small groups or pairs to try using the organizer while you observe and assist. Groups should work with material they can read easily, or use a taped reading. Finally, when you see that learners are using the strategy correctly and comfortably, they can do it on their own. Following are examples of graphic organizers.

(Continued)

2. GRAPHIC ORGANIZERS (CONTINUED)

- **KWL Chart** – Use the KWL chart to help learners think about what they already know about a topic (access prior knowledge) and develop a purpose for reading. It's also a review tool, when they make notes of what they've learned.

KWL Chart

Name: _____

Topic: _____

What I **K**now	What I **W**ant to Know: or What I **W**onder:	What I Have **L**earned:

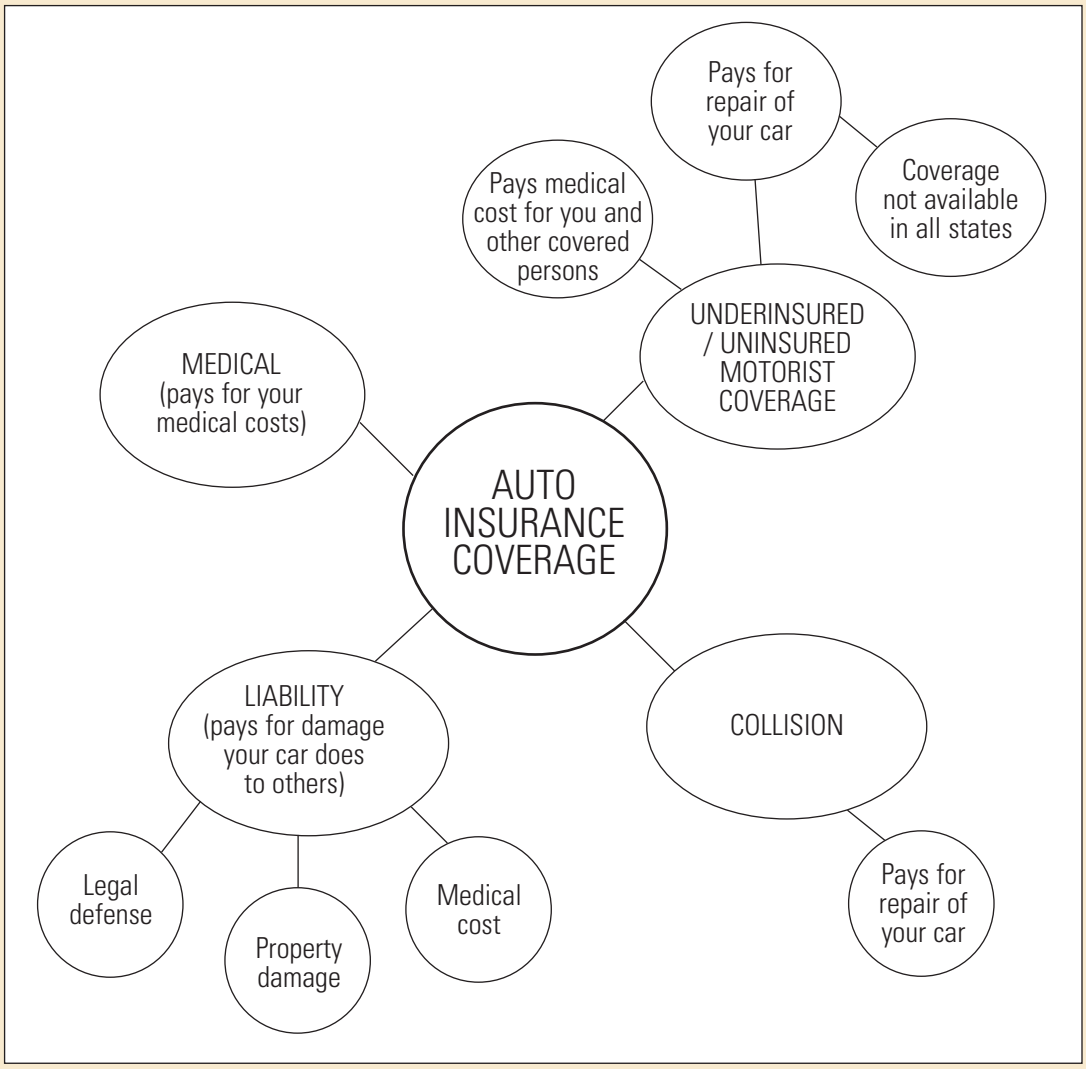
- **Tables** – A simple table may be used to illustrate various relationships: similarities and differences, inferences and text clues, or main ideas and supporting details.

MAIN IDEA

Detail
Detail
Detail
Detail

2. GRAPHIC ORGANIZERS (CONTINUED)

- **Semantic Map/Web –** Use semantic mapping to illustrate a main idea and details, to review or summarize facts and concepts learned from reading about a topic, or to brainstorm and organize ideas before writing.



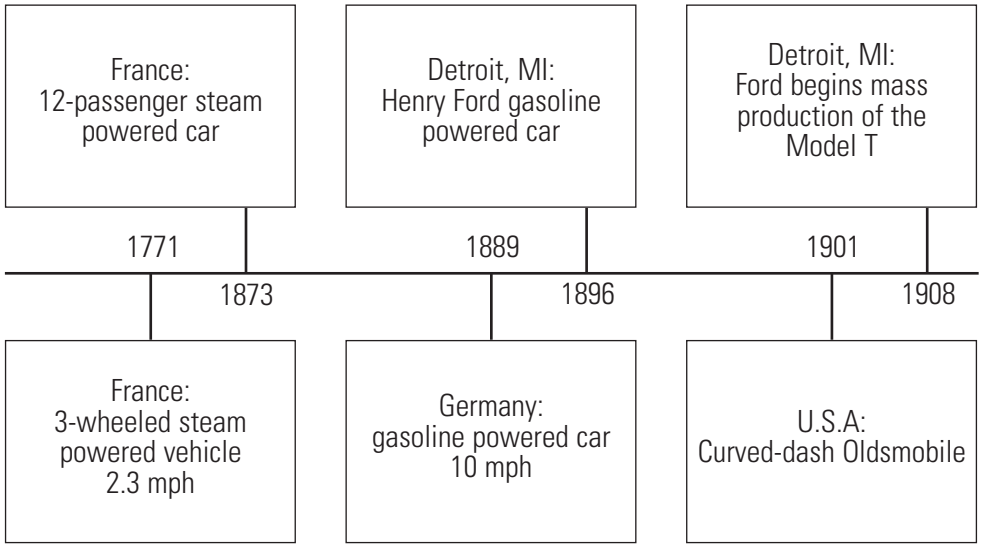
2. GRAPHIC ORGANIZERS (CONTINUED)

- **Timelines –** A timeline illustrates events in order and may be useful in reading history or following events in a news or fictional story.

Children's Language Development				
Key Events	• Babbles • Laughs, giggles, cries • Makes noise when talked to	• Understands no-no • Babbles • Tries to repeat sounds	• Says first words • Understands simple directions • Points to people & objects	• Puts two or more words together • Pronounces most vowels and some consonants • Understands simple verbs, e.g., eat, sleep
Time	Birth to 5 months	6-11 months	12-17 months	18-23 months

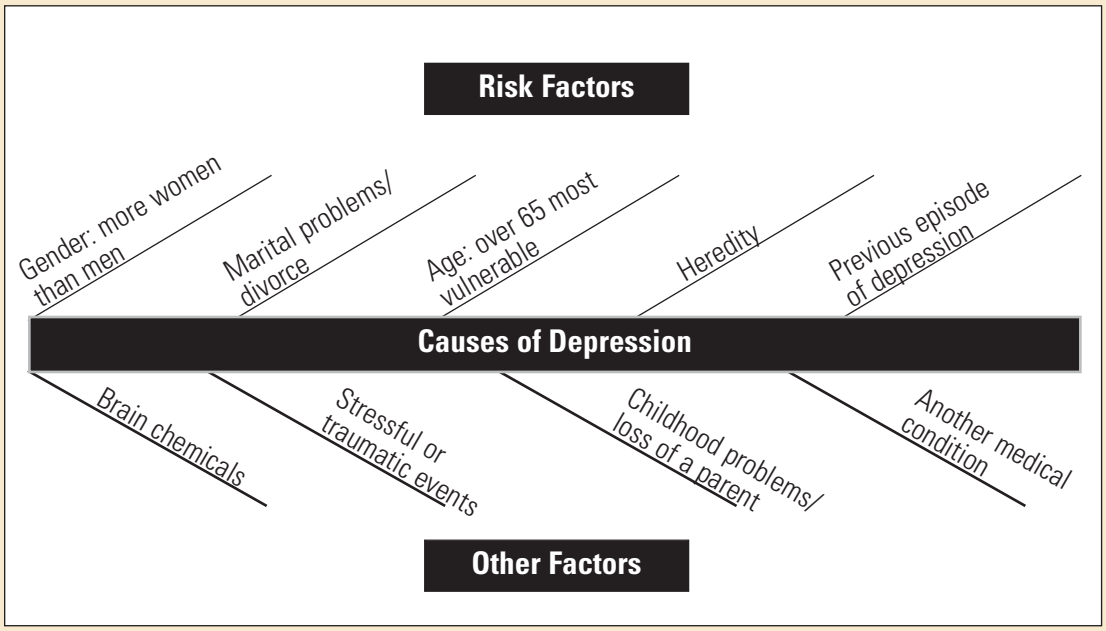
The timeline below shows how to arrange events so they don't take up too much horizontal space.

Invention of the Automobile



2. GRAPHIC ORGANIZERS (CONTINUED)

- **Fishbone/Herringbone** – A fishbone/herringbone diagram may be used to show complex cause and effect relationships.



3. STORY STRUCTURE

The idea of teaching story structure is based on the fact that all stories have similar features and all have plots that are organized into episodes. By analyzing a story's structure, the reader becomes aware of the important story elements, and this awareness facilitates comprehension and memory.

To introduce this strategy you might begin with these five questions that represent the basic story elements (NICHD, 2000, p. 4-91).

1. Who is/are the main character(s)?
2. Where and when did the story occur?
3. What did the main character(s) do?
4. How did the story end?
5. How did the main character feel?

You should begin with a story the class has read and demonstrate the question-and-answer activity for them. Then the whole class might practice going through the process with another story. Learners also could practice this strategy in small groups or pairs.

To reinforce this kind of thinking and make it more concrete you could have the learners construct another kind of graphic organizer, a story map like the one below.

To make the analysis of story structure more concrete and explicit for struggling readers, you can have them read a story in sections (introduction, body, and conclusion), ask questions about main characters, and setting, record the answers on cards, and line up the cards under the appropriate story sections. Find details on this approach in *Teaching Adults Who Learn Differently* (Skinner, Gillespie, & Balkam, 1998).

Story Map

Title: _____

Setting
Characters
Problem

Event: _____

Event: _____

Event: _____

Event: _____

Resolution

4. QUESTION ANSWERING

This strategy is a modification or expansion of the time-honored approach to comprehension: asking questions. Teachers ask questions during or after learners' reading, and learners may look back at the text to get the answers if they need to.

The goal of question-answering instruction is to "aid students in learning to answer questions while reading and thus learn more from a text" (NICHD, 2000, p. 4-86). This strategy may be especially helpful for school-based learning and test taking, but when questions require higher-level thinking, adults also may apply this kind of thinking to a variety of reading tasks (Duke & Pearson, 2002).

To build higher-order thinking skills you have to ask good questions. Research suggests that if you mainly ask factual questions, readers will learn to focus mostly on facts when they read. On the other hand, if you ask questions that demand higher-level thinking and use of background knowledge in combination with textual information, they will tend to think this way when they read (Duke & Pearson, 2002). Of course, literal comprehension is vital; a reader can't make inferences and draw conclusions without control over the basic facts. Just don't stop there. Ask questions that require learners to think about their reading.

Teaching readers to make inferences. When readers make inferences they put information from different parts of the text together with their own knowledge to arrive at understandings that are not directly stated. Making inferences is sometimes called "reading between the lines."

This kind of thinking while reading doesn't come naturally to all learners, but it is important, and may be especially important for adults in basic education and literacy classes because their general knowledge in academic content areas may be limited. The less a reader knows about the subject matter of a text, the more inferences will be required. If a learner is reading a short article about the Civil War and doesn't have much background knowledge, he may have to infer (for example) that Robert E. Lee was an important leader of the southern army. This reader will have to work harder to figure out "who the players are" than another who knows more about the war.

Adult learners may not understand that readers are expected to make inferences about text. They may not realize that they should make inferences while reading as they do in listening. Explicit instruction may be required. Here is a possible sequence.

1. Begin by defining *inference* and explaining why reading between the lines is necessary for full comprehension.
2. Then use a scenario based on everyday life to illustrate how we all make inferences every day. You might tell this story, for instance,

   "People these days stay pretty active even when they get up in years. Yesterday I stepped into the hall to put out some bills for the mailman before the holiday, and I saw my elderly neighbor walking toward the building carrying two big grocery bags. Another neighbor stepped up to help her, and as they came into the building, I overheard them

4. QUESTION ANSWERING (CONTINUED)

talking. The older woman said, 'Would you look at all this food! And I had to buy such a big turkey! I haven't cooked one in years. I hope I remember how!'"

Then ask the learners, "What do you think is about to happen?" (The older woman is probably having company for a holiday dinner.) "Where do you think these people live?" (They probably live in an apartment building.)

Be sure to ask, "What makes you think so? What clues did you use?"

Explain that as readers we figure out things that are not directly stated by using exactly the same kind of thinking they just used in listening: We use our knowledge of the world or of the subject matter.

3. Model the thinking process by reading a passage to the group and thinking aloud, demonstrating how you make inferences. Be sure to point out the text clues that support your inferences. Here's an example from the Partnership for Reading booklet for parents, *A Child Becomes a Reader: Birth Through Preschool.*

   The following is a list of some accomplishments that you can expect for your child by age 5. This list is based on research in the fields of reading, early childhood education, and child development. Remember, though, that children don't develop and learn at the same pace and in the same way. Your child may be more advanced or need more help than others in her age group. You are, of course, the best judge of your child's abilities and needs. You should take the accomplishments as guidelines and not as hard and fast rules. (Armbruster, Lehr, & Osborn, 2003, p. 25)

   Here is one way to demonstrate what a parent might infer from this passage:

   "It seems like the list that's coming up will tell some things that 5-year-olds can do. I guess that's what they mean by 'accomplishments that you can expect.' But it says children are all different, and I'm the best judge of my child, so I think that means I shouldn't be upset if my child can't do everything on the list."

4. Next ask pairs or groups to read a passage and discuss their inferences. Be sure they specify the clues (evidence) they used, and encourage them to challenge each other if the evidence seems insufficient to justify the conclusion. Observe and assist the groups if they need help finding these "invisible messages" (Campbell, 2003).

4. QUESTION ANSWERING (CONTINUED)

5. Have individuals practice with another text, and complete a table like the one below (Campbell, 2003), writing information from the text in the left column and the corresponding inference on the right.

Text Cues	Invisible Message
1. Accomplishments you can expect	Things most 5-year-olds can do
2. Children don't learn and develop at the same pace.	My child may not do everything on the list– or may do more things.
3. Guidelines, not hard and fast rules	Children vary. I shouldn't be upset if my child doesn't match the guidelines.
4.	4.

6. Provide feedback on this activity and more practice as needed.

Analyzing questions. After explicitly teaching this kind of thinking, you may teach learners to analyze questions to see where and how to find the answers. You might try the question-answer relationship (QAR) approach (Raphael & McKinney; Raphael & Pearson, as cited in Duke & Pearson, 2002). Three QARs may be taught:

- *Right There* questions, when the answer is directly stated in the text,
- *Think and Search* questions, when the reader must do some searching—combining information from different parts of the text, and
- *On My Own* questions, when the question requires the use of prior knowledge combined with text information.

Analyzing questions in this way helps readers know how to find the answers.

Answering questions may be understood as the foundation for generating questions, the next strategy. Before you can expect readers to ask good questions of themselves, you have to give them examples of different kinds of questions (Curtis & Longo, 1999). It makes sense to first focus on questions *you* ask. Then, when the learners are aware of different kinds of questions and have practiced finding answers, you might try the question generating strategy, modeling as in the example on page 92.

5. QUESTION GENERATING

This strategy requires learners to ask and answer questions about their reading. "The assumption is that readers will learn more and construct better memory representations when self-questions are asked while reading" (NICHD, 2000, p. 4-89).

As active readers we're thinking while we're reading, asking questions and seeking the answers—although we may not articulate the questions. If you pay attention to your thoughts, you may discover that when you are having a "comprehension breakdown" you ask questions like these:

- What's going on here?
- Why did the character say that?
- Why is the author so emphatic about this point?
- Why did the author include this information? What's the connection with the last section?
- What's the difference between this plan and the old one?
- How does this information fit with the article I read yesterday? Are the two authors saying different things? How could the ideas be reconciled?

When you become aware of your own questioning you can model this process by thinking aloud with different kinds of texts: asking questions and demonstrating how you find the answers. You could use QAR analysis again here, thinking about where the answers might be found. Be sure to plan this activity carefully to include examples of different kinds of questions so you can show the different strategies for finding answers.

For example, some of the questions above could be answered by reading on and perhaps using inference to draw a conclusion. Some would require looking back to other parts of the text to recall events in a story or to review information. Still others may require other sources. Sometimes reading raises questions that require further reading.

The question-generating strategy may be used in reading both fiction and nonfiction texts. By showing learners how to be questioners and encouraging them to analyze their questions to decide where the answers may be found, you are helping them to become active readers and thinkers. Research with children offers strong evidence that this strategy improves reading comprehension, as reflected in specific tasks: remembering what is read, answering questions based on the text, and identifying main ideas through summarization (NICHD, 2000, p. 4-88).

As a next step, analyzing questions may be a good skill to transfer to real-life reading tasks. When adults need to read something because they have questions, using this strategy may be helpful, because they figure out where the answers to different kinds of questions may be found. What kind of question is it? Does the notice or manual or letter have all the answers in it, or is it necessary to get more information? They could formulate their own questions and analyze them: deciding for each one if it's a *Right There,* a *Think and Search,* or an *On My Own* question. Then they could read to find answers and check back afterward to see if their analysis was correct.

6. SUMMARIZATION

A summary is "a brief statement that contains the essential ideas of a longer passage or selection" (Harris & Hodges, 1995, p. 247). According to the National Reading Panel report, the aim of summarization instruction is "to teach the reader to identify the main or central ideas of a paragraph or a series of paragraphs" (NICHD, 2000, p. 4-93). Readers first learn how to summarize a single paragraph; then when working with longer passages, they create a summary of the paragraph summaries.

Summarizing is difficult, but research suggests that teaching learners this strategy is worth the effort. Summarization training has been shown to be effective in improving learners' ability to compose summaries and also has important transfer effects. Studies on children indicate that learners have better recall of the summarized information and are more successful in answering questions about the text than those who were not taught to summarize (NICHD, 2000. p. 4-46). Summarization improves comprehension, perhaps, because readers who are asked to summarize spend more time reading and must pay close attention to the text (NICHD, p. 4-92).

Summarization is often applied to expository (nonfiction) texts. It is a valuable study skill because readers cannot remember everything they read, so they need to be sure they focus on the most important facts and ideas. Because most adult learners want to improve their reading for important reasons—often to pass the GED tests or to understand and use work-related materials—explaining this rationale may be a good way to introduce instruction in the summarization strategy.

Almost all of the summarization research reviewed by the National Reading Panel was done with children in grade five and above (NICHD, 2000, p. 4-92). Researchers may have focused on older children because summarization is a difficult skill in itself, and to teach it as a tool for improving reading skills assumes a significant level of existing reading and writing competence. In addition, readers must be able to distinguish important from less important ideas and make general statements that apply to a set of similar/related facts or examples. These are advanced thinking skills.

You may find some of the activities on the next few pages most appropriate for the better readers and critical thinkers in your class. Suggestions for first steps—introducing the underlying thinking skills to beginners—are also included.

Identifying main ideas. A key feature of the summarization process (and the first step in learning to summarize lengthy texts) is identifying main ideas in paragraphs. A main idea statement may be understood as a one-sentence summary of a paragraph (Carnine, Silbert, & Kameenui, 1997). To introduce the concept, begin by defining terms:

- The *topic* of a paragraph is its subject, "the general category or class of ideas . . . to which the ideas of a passage as a whole belong" (Harris & Hodges, 1995, p. 258). It usually can be stated in a word or phrase: tornadoes, mammals, local preschools, a healthful diet, the Vietnam War, or job hunting.

6. SUMMARIZATION (CONTINUED)

- The *main idea* of a paragraph is a statement of what the paragraph is about—"the gist of a passage; central thought" (Harris & Hodges, 1995, p. 148).

In other words, the main idea is what the writer has to say about the topic.

Example

The topic of the paragraph is local unemployment.
The main idea is that the local unemployment rate has recently increased.

Sometimes the main idea is directly stated in a topic sentence. Recognizing a topic sentence is simpler than inferring an unstated main idea, but learners still may need practice. You will need multiple examples of well written paragraphs that have topic sentences. A good source for these is a comprehension skills workbook. Show several examples of paragraphs with topic sentences at different locations in paragraphs. Explain that readers should not assume the first sentence is the topic sentence.

Of course, most of the time there is no topic sentence, and the reader must infer the main idea. Here are some ideas for teaching learners how to identify an implied (unstated) main idea.

- *Mapping:*

  Make a map of the paragraph, leaving the center bubble empty, and writing each idea or piece of information in a separate bubble. Compose a sentence that applies to all the bubble elements and "pulls them all together." Write the sentence in the middle bubble.

- *Questioning*

  Try this three-step procedure (Hancock, 1987):

  1. What is the topic of the paragraph?
  2. What is the author's purpose in writing about the subject?
     – To define, explain, or describe something?
     – To persuade the reader to agree with an opinion or to take some kind of action?
     – To criticize or defend a person or action?
  3. Given the purpose, what is the author trying to make the reader understand about the topic? (If the author is defining something, what is the definition? If the author is trying to persuade, what is the primary argument?)

In working with beginners, you may need to begin by teaching the underlying skills. Composing a main idea statement requires learners to generalize; they must discover what a series of facts or ideas have in common and then choose language that expresses this common theme. You might start with simple tasks, as in the next suggestion.

6. SUMMARIZATION (CONTINUED)

- *Generalizing: The underlying skill*

  Write a series of simple narrative paragraphs in which one person is described as doing several things. In each sentence the person is doing something else. The task for learners is to state the main idea. You give explicit directions: Name the person and tell the main thing the person did in all the sentences.

  "Tom cooked two eggs. He poured orange juice into a glass. He put cereal into a bowl. He poured milk into a bowl."

  Main idea: Tom made breakfast. (Carnine, Silbert, & Kameenui, 1997, p. 249)

  When learners are able to do this, make the task a bit more complex by creating sample paragraphs in which different persons do different things. The learners must then decide on a general term to describe the people as well as the actions (Carnine et.al.).

Other approaches to summarization. The summarization studies reviewed by the National Reading Panel used variations of so-called "rule-based procedures" (NICHD, 2000, p. 4-93; Duke & Pearson, 2002). The example below is a procedure for summarizing a paragraph (McNeil & Donant, as cited in Duke & Pearson).

- *A rule-based procedure*

  Rule 1: Delete unnecessary material.
  Rule 2: Delete redundant [repetitive] material.
  Rule 3: Compose a word to replace a list of items.
  Rule 4: Compose a word to replace individual parts of an action.
  Rule 5: Select a topic sentence.
  Rule 6: Invent a topic sentence if one is not available.

  Of course, to know what is unnecessary the reader must already have at least a sense of the main idea of the paragraph, so you might want to have learners create paragraph maps first and/or work with a partner to think through the decisions to delete material. See Appendix D for an example of this procedure.

- *The GIST procedure*

  GIST, which stands for Generating Interactions between Schemata and Texts, is another summarization strategy (Cunningham, as cited in Duke & Pearson, 2002 and in Allen, 2004). GIST calls for readers to begin by summarizing the first sentence of a paragraph using no more than 15 words. Then they read the next sentence and create a summary of the two sentences. Proceeding in this way with each sentence, they end up with a summary of the whole paragraph using no more than 15 words.

6. SUMMARIZATION (CONTINUED)

GIST may be adapted for longer selections and more advanced learners by working with paragraphs instead of sentences. They compose a one-sentence summary of the first paragraph, then do the same for the second paragraph, and then combine the two summaries into one sentence. Working one paragraph at a time in this way, they end up with a short summary of the entire selection.

- *Summaries of longer texts*

  More advanced learners may develop both reading and writing skills by composing summaries of a textbook chapter or other lengthy text. A rule-based approach for creating written summaries is suggested below (Sheinker & Sheinker, as cited in Carnine, Silbert, & Kameenui, 1997, p. 327).

  1. Skim a passage.
  2. List key points.
  3. Combine related points into single statements.
  4. Cross out least important points.
  5. Reread list.
  6. Combine and cross out to condense points.
  7. Number remaining points in logical order.
  8. Write points into paragraph in numbered order.

7. MULTIPLE STRATEGIES INSTRUCTION

Many of the strategies above are best used within a multiple-strategies approach (NICHD, 2000, P. 4-44, 45, 46). In the studies reviewed by the National Reading Panel two or more strategies were taught in the context of an interaction between teacher and learners, usually in small groups (NICHD, p. 4-77).

Most of the research included in the Panel's review were studies of "reciprocal teaching" (NICHD, 2000, p. 4-79, 80). In reciprocal teaching, the teacher first models the comprehension process, showing how she/he interacts with text, using two or more of the following strategies in combination: question generation, summarization of main ideas, clarification of word meanings or confusing text, and prediction of what will come next in the text. The teacher explains how and when the strategy is used and provides guidance as the learners practice applying the strategies in working through a passage. Gradually, as they become more skilled in the use of the strategies, the teacher releases control of the process, and the readers use the strategies independently in their reading.

This not a formulaic approach; it reflects what good readers do while reading. Readers learn to use the strategies flexibly as needed, depending on the text. In pairs or small groups, learners may take turns in the teacher role, acting as the questioner, the clarifier, the summarizer, or the predictor (Snow & Biancarosa, 2003; Allen, 2004). Through interactions with the teacher, the text, and other learners, they acquire the habit of active reading, reasoning, and problem solving.

In other approaches reviewed by the National Reading Panel, more strategies were taught in combination, including comprehension monitoring, story structure, vocabulary instruction, and others. Cooperative learning (see below) is often used to provide practice of these strategies.

▶ **An idea from the research on children: To improve ABE learners' general reading comprehension achievement (those ABE learners reading above Grade Equivalent 3), teach them to use a repertoire of several strategies that they can use consciously and flexibly as needed while reading and that enable them to become actively engaged in understanding a text. Combinations of the following strategies are suggested by the research: comprehension monitoring, cooperative learning, graphic organizers, story structure, question answering, question generation, and summarization.**

Issues in multiple-strategies instruction. Learners should have basic decoding skills to make use of the multiple-strategies approach. In fact, much of the research on reciprocal teaching that was reviewed by the National Reading Panel was done with students in fourth grade and above, and older students (seventh and eight graders) benefited most. We might conclude that these multiple-strategies approaches are likely to be most effective with mid- to high-level adult readers (NICHD, 2000, p. 4-79).

A further caution has to do with the realities of adult learners' attendance and "time on task." Because these are complicated, multi-faceted approaches, you will need to make time to introduce and model, and provide practice and feedback with several examples. As always, consider the needs and strengths of your group and the realities of your setting when choosing comprehension strategies to teach.

8. COOPERATIVE LEARNING

This approach may be useful in the classroom to build skill and confidence in using strategies that may transfer to independent reading. Adults also may discover from this experience that it's helpful (and OK!) to get another perspective or another person's thinking about a difficult reading task, and this is important learning, too.

A variety of cooperative learning approaches are possible. Adults may work in pairs or small groups.

If you have not used cooperative learning in your class before, you will need to introduce it carefully, stressing that adults can learn a lot from each other by practicing skills together and discussing them. You should also monitor group work to be sure everyone is participating and comfortable with this approach.

The National Reading Panel based its recommendations on research done with children in grades three through six, and this approach is probably most suitable for learners who have moved past the basic decoding stage and are comfortable reading or otherwise demonstrating their skills in front of others. If you are concerned about weaker readers feeling embarrassed, you might start by having them work in pairs, matching people with partners who have similar skills.

If you decide to give it a try, you could choose any of the research-based strategies, for instance, one of the comprehension monitoring strategies. Begin by introducing and modeling the strategy. Then if your class is new to cooperative learning or if you want to be sure everyone understands how to use the strategy before asking them to work together, you might provide *individual* practice with monitoring and feedback. When you think the learners can do it fairly confidently, decide how to pair or group them for cooperative learning. Choose reading materials that all group members can read, and keep in mind the importance of interest and background knowledge. Be sure to give explicit directions for the activity and post them in plain sight during the activity. Following is an example of how a strategy might be introduced to cooperative learning groups. This example is based on the self-questioning strategy for comprehension monitoring.

Sample directions

1. Read each section of the article silently. Look up when you are finished.

2. Take turns asking and answering who, what, when, where, and why questions about each section. When it's your turn, ask and then answer your own questions as best you can. If you want help, signal the group.

3. Discuss the section as a group for 3-5 minutes. Focus on answering the questions and any problems anyone has.

Small-group learning can be a powerful approach, especially in a mixed-level class. The research indicates that children of all abilities benefit from working and learning together (NICHD, 2000, p.4-71).

Of course, adult basic skills classes typically include a much wider range of abilities than is found in elementary school classes, so grouping decisions should be made carefully. Pair or group learners with similar abilities, to the extent that this is possible.

When adults get comfortable with this approach they may find it to be a good break from individual study and large-group activities. Some may find it easier to speak up in a small group. For learners who are working one-to-one with tutors, the experience of interacting with their peers may be both enlightening and reassuring.

Instructional approaches for comprehension strategies

Teaching reading comprehension is complex, and although research has identified effective strategies for *readers* to use, it does not tell us exactly which *instructional approaches* work best in developing strategic readers. According to the National Reading Panel report, the literature on strategy instruction for reading comprehension "has yielded valuable information," but "has not provided a satisfactory model for effective instruction as it occurs in the classroom" (NICHD, 2000, p. 4-119). In other words, the research seems clear about the particular strategies readers should learn, but not so clear about how teachers may most effectively teach them to use these strategies.

In fact, the Panel emphasizes that preparing teachers to be effective providers of comprehension-strategy instruction is a lengthy process (NICHD, 2000, p.4-120, 126). Researchers "have not identified a specific set of instructional procedures that teachers can follow routinely" (NICHD, p.4-125).

However, there is good news! Much of what you know about good teaching will apply in your work with reading comprehension strategies. And if *you* are a strategic reader, you can learn how to pass on your "good habits." Pay attention to your own reading behavior. Analyze what you do and plan ways to describe and model your thought processes. These are the first steps. Then follow these general guidelines from the National Reading Panel report:

> *…teachers help students by*
>
> - *Explaining fully what it is they are teaching: what to do, why, how, and when,*
> - *Modeling their own thinking processes,*
> - *Encouraging students to ask questions and discuss possible answers among themselves,*
> - *Keeping students engaged in their reading by providing tasks that demand active involvement.* *(NICHD, 2000, p. 4-125)*

Once again in this quote we see the emphasis on explicit instruction—explaining and modeling all aspects of the task or skill and leaving nothing to be inferred.

The value of discussion. During the lesson and after teaching a strategy, allow time to talk about readers' impressions of a text, conclusions they have drawn, unanswered questions, or difficulties with the strategy. Even the best explanation and modeling up front can't address all the complexities that sometimes arise as readers work with a text and a strategy. Discussion prompts readers to articulate their responses to the material, requires them to defend their thinking in case of a disagreement, and encourages them to ask clarifying questions. It also allows you to glimpse their thinking processes and identify the source of problems and confusion. You may want to get into the habit of making time to talk (J. Strucker, personal communication, May 13, 2004).

Taking a multiple-component approach. Because basic reading skills are essential to comprehension, building decoding skills and developing fluency and vocabulary may result in improved comprehension. When working with beginning and intermediate readers, remember these foundation skills and plan reading lessons to address all the needed component skills, at appropriate levels of difficulty.

- **An idea from the research with children: To improve ABE learners' reading comprehension, use a multiple components approach to instruction in which all aspects of the reading process are addressed, as needed, including phonemic awareness, word analysis, and vocabulary, as well as reading comprehension (Kruidenier, 2002).**

What Does Comprehension-Strategy Instruction Look Like?

The sample activity on the next page is one way to introduce comprehension monitoring, with a combination of two strategies.

SAMPLE ACTIVITY TO INTRODUCE A COMPREHENSION-MONITORING STRATEGY

Goal
- Improve self-monitoring of comprehension

Focus
- This activity involves two simple strategies that may be taught together: (1) stopping and restating and (2) coding text. (See the section on working with beginners, page 98.)

Materials
- For this activity you'll need nonfiction texts related to learners' goals and interests. Reading level is also important. Because the focus is on building awareness of comprehension and comprehension problems, the material may need to be slightly difficult—that is, above the learners' independent reading levels—so they will encounter problems. You'll need practice materials at different levels for learners in a multi-level class. But you can introduce the strategy with the same text for all, because you'll be reading aloud.
- The thinking processes apply broadly to different materials. Text sources for this activity include popular newspapers and magazines, GED and pre-GED workbooks, and high-interest/low-level materials from commercial adult education publishers.

Grouping
- Large or small groups and pairs

Directions

1. Introduce the strategies by explaining how they work and why they're useful.

   Example: Sometimes when we're reading silently we stop paying attention or we just read the words without thinking about them and we end up missing out on what the reading is all about. I'm going to show you a couple of things you can do to stay focused and pay attention to the meaning, so if you don't understand something you'll be aware of it and can do something about it.

   First, we're going to practice stopping often to think about what we've read and to restate it in our own words. Then we're going to make quick notes when we learn something new or when we have a question about something we've read.

2. Model these strategies by reading and thinking aloud.
   - Demonstrate how to stop after every paragraph and restate what's been read.
   - Show how to use the following codes to mark the text to reflect your understanding or comprehension problems.

   ?? = I don't understand

   ++ = This is important (or) This is new information

   Be sure to demonstrate more than one kind of comprehension breakdown, perhaps an unfamiliar word, an "I wonder what this means?" question, and an example of more serious confusion. To demonstrate the coding you might use an overhead transparency of the page.

Sample text and strategy modeling

(Teacher reads aloud in italics and thinks aloud in brackets. Coding is in bold print.)

Disease-causing germs often are transmitted by contaminated hands because people fail to take a few simple precautions. **??** Germs may spread from hands to food, usually when food preparers don't wash their hands after sneezing, using the bathroom, changing a baby's diaper, playing with a pet, or caring for a sick person. **++** Germs are also transmitted when a cook handles raw, uncooked foods, like chicken, and then touches raw fruits or salad vegetables, for instance. **++** Cooking the chicken kills the germs, but the vegetables remain contaminated.

[Well, that was pretty clear. Diseases can be spread from hands to food if we don't wash our hands after coming in contact with germs. And that happens any time we go to the bathroom, sneeze, or change the baby. That's interesting about the meat and vegetables. I didn't know that I had to worry about raw chicken. I wonder why we have to cook meat to kill the germs but we can eat raw fruits and vegetables? I don't really know what *contaminated* and *precautions* mean, but it looks like *contaminated* means it has germs on it. *Remain contaminated* sounds funny, but I think I get it. They're still contaminated? Maybe I can figure out precautions if I keep reading. I know what *caution* means.]

Preventing contamination is simple: wash your hands frequently, with soap and warm water to kill germs. (The CDC recommends washing vigorously with warm, soapy water for at least 20 seconds.) As another precaution, remember to wash fruits and vegetables before eating. **??**

[Now I'm confused. How do you wash the fruits and vegetables? You're supposed to wash your hands in warm water to kill germs, but the list on the page before said to keep hot foods hot and cold foods cold. If I wash the salad vegetables in warm water they won't be cold anymore. Does that mean they'll get more germs? And if I use cold water, does it kill the germs? And what about soap? We don't need soap to wash the veggies, do we?]

(continued)

You could talk briefly about how these questions might be answered, what next steps should be, etc. For instance, you might note that if the reader is unclear about something in the text, one strategy is to read on to see if the topic or concept is explained more fully further on. Another is to talk to someone else about it (a part of this activity). However, the focus of this activity is noticing the comprehension breakdown, so you wouldn't want to get too far "off track." Strategies for solving problems should be introduced in other lessons.

3. Assign or hand out reading selections to the learners, and ask them to practice stopping after each paragraph, restating (silently), and using the codes to mark the text. If the selections are in textbooks and you don't want them to write in the books, they could use small adhesive notes for coding.
4. Pair learners who have read the same selection and ask them to discuss what they've learned from the article and to share their experience with the strategies. They should talk about their problems and confusions and whether/how they resolved them. (They might also read and think aloud with each other, perhaps taking turns with different paragraphs, reading and restating.)
5. Circulate and note the problems and solutions they discuss. You can use this information in planning for next steps. Are they using the strategies correctly? Were the reading selections too difficult or too easy? What kinds of problems did they have? Were there lots of vocabulary problems, for instance?
6. In the large group, ask learners to react to their practice with the strategies. How helpful were they? Were there problems? Did it help to talk about their selection with a partner?

Working with beginners. For beginning or struggling readers, you might need to teach one strategy at a time. For instance, you could just teach them to stop and restate. Another option is to stop more frequently, after every sentence instead of every paragraph. And of course, regardless of what kind of text you use to introduce and model a strategy, learners should use material at an appropriate level for practice. You should also be aware that weaker readers working with simpler texts may have comprehension problems unlike the fairly sophisticated ones modeled above. When they think aloud about what they've read you might discover they have the wrong idea about what some words mean—even when they think they've understood. During practice, you will want to pay attention to the pairs' discussions to identify the problems they're having, so you can offer help as needed.

Summary: Comprehension-Strategy Instruction Tips in a Nutshell

- *Provide instruction in comprehension strategies for learners at all reading levels.*
- *Teach learners how and when to use several broadly applicable, research-based strategies.*
- *Teach strategies explicitly, explaining what to do, and how and when to apply the strategies.*
- *Teach strategies one at a time, providing plenty of opportunities for guided practice to ensure learners can use them independently.*
- *Model the strategies for learners by thinking aloud as you read.*
- *Consider applying the comprehension strategies to listening comprehension, especially when working with weaker readers: read text aloud or use taped readings.*
- *Consider readability level and learners' background knowledge when choosing texts for comprehension-strategy instruction.*
- *Because decoding, fluency, and vocabulary are required for comprehension, include instruction/practice in all appropriate components in reading lessons.*

8

Initial Assessment and Instructional Planning

What Does Initial Assessment Look Like?

You will need a practical system for deciding who needs which assessments and what tools to use. The system below was introduced in Chapter 3 and is described in greater detail here. This model is offered as one example of how to get started with component assessment.

Once again, we advocate a thoughtful, one-step-at-a-time approach using professional wisdom to adopt or adapt this plan as your needs require and your resources allow. Then, after you have worked with it a while, evaluate your experience and decide how to expand and improve upon it.

A start-up plan for component assessment: two paths to instruction

The first three steps in the process provide important information for instructional planning. (Find details on the process further on in this chapter.)

Step 1: (For all learners)
Interview each learner at enrollment to set individual reading goals and to learn about specific reading difficulties, past educational experiences (including any special reading help), job skills, other abilities, and interests.

Step 2: (For all learners)
Administer a standardized reading comprehension test (you're probably already doing this), to get a measure of silent reading comprehension and establish a baseline for progress and outcomes measurement.

Step 3: (For all learners)
Ask each learner to read a short passage aloud as rapidly as possible, with accuracy, and count the number of words read in one minute. This sample of oral reading is a quick measure of the speed aspect of fluency. The difficulty level of the passage depends on the learner's reading ability. See the tables in this chapter for details.

The other important purpose for assessment at this point is to identify those learners whose reading component weaknesses are severe enough to suggest the need for further assessment. You don't have time to waste (and neither do they!), so you don't want to

give a complete battery of tests to those who don't need it. These first steps (described further below) act as a *screening process* to identify those who need further assessment.

Decision point: The results of Steps 2 and 3 identify those who should have further assessment. The cut-off scores are 8 GE on the standardized test and 125 words per minute on the oral reading sample.

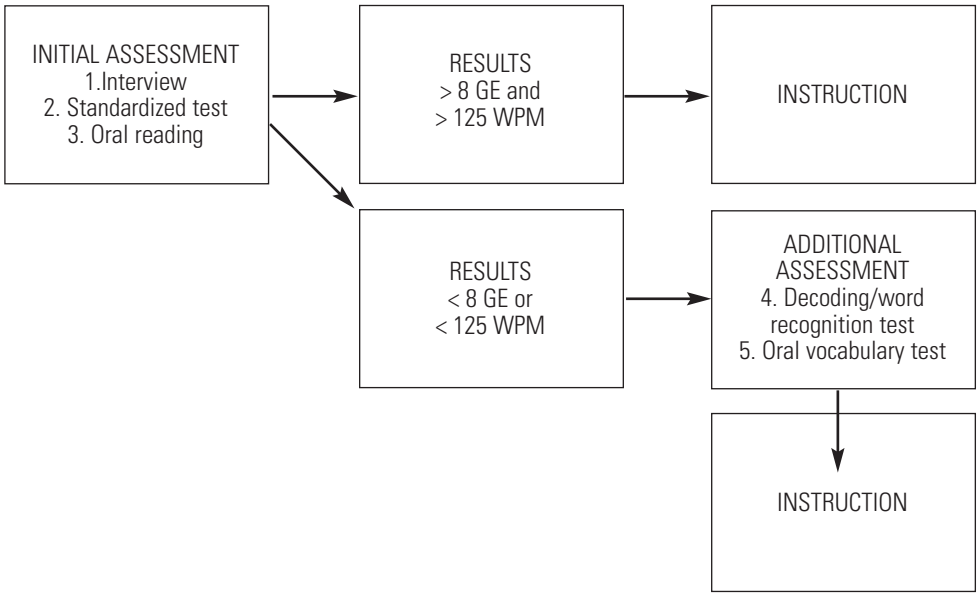
You may assume that those who score at or above the cut-off on both measures should be able to participate in group-based instruction focused primarily on meaning: building vocabulary and improving comprehension. Further assessment may be required as instruction proceeds, but is not indicated at this point.

For those who score below 8 GE *or* read more slowly than 125 words per minute, you should get more information to identify the specific causes for the comprehension and/or fluency problem. Is it a decoding problem, a limited vocabulary, or some combination of the two?

Remember to keep all assessment data completely confidential. Oral reading and interviewing should be done in private, and all paperwork should be immediately filed in a secure place. Adult learners need to know you respect their privacy.

Step 4: (For those who need further assessment)
Administer a decoding and/or a word-recognition test to identify problems at the word level: decoding skills and recognizing high-frequency words on sight.

Step 5: (For those who need further assessment)
Administer an oral vocabulary test to see if (or to what extent) the problem is related to limited knowledge of word meanings and to get a measure of vocabulary not influenced by reading ability—a sense of reading potential.



For details on the process and examples of tests, see the following tables.

INITIAL ASSESSMENT: A START-UP PLAN (First steps for all learners)

Step 1. Interview

If you are only collecting basic demographic information and educational goals, expand your interview to include information on native language and level of native language literacy/education, as well as information that will help you to target reading instruction, such as presence of vision or hearing problems, history of reading problems or special help in school, and self-assessment of specific reading difficulties. You may download a questionnaire from the website, *Assessment Strategies and Reading Profiles: Adult Reading Components Study (ARCS)* (National Institute for Literacy) at *www.nifl.gov/readingprofiles/PF_Learner_Questionnaire.htm*

Step 2. Standardized test

Example

- *Test of Adult Basic Education (TABE)* 7 & 8 or 9 & 10 (9 & 10 edition includes a written vocabulary test)
- *Adult Basic Learning Examination (ABLE)* (includes a written vocabulary test)
- *Comprehensive Adult Student Assessment System (CASAS)*

Follow test administration directions. Explain the purpose of the test, time limits, and recommendations about guessing. Give the practice test or provide practice items. Administer the appropriate test level, based on a "locator" test or publisher recommendations.

Step 3. Oral reading sample

1, Choose a passage about one grade level below the assessed level according to the standardized comprehension test, but keep the difficulty level at or below 6-7th grade readability (even if the reading test score is above 8 GE).
2. Have the learner read the passage silently (or orally) once to be sure there are no troublesome words that might slow the reading.
3, Then tell the learner to read the passage aloud as quickly as possible with accuracy.
4. Using a watch with a second hand, keep track of the time and stop the reader after exactly one minute.
5. Count the number of words read per minute (WPM).
6. For increased reliability, confirm the score with one or two additional passages at the same level. (A grade-leveled textbook series that you are not using for instruction is one source for these passages.)

For detailed directions on timed oral reading assessment see "Calculating Oral Reading Rate" on the website, "Assessment Strategies and Reading Profiles: The Adult Reading Components Study (ARCS)" at *www.nifl.gov/readingprofiles/FT_Match_Intro.htm*

A fluency test is another option. Examples:

- *Gray Oral Reading Test, 4th edition (GORT-4),* (Wiederholt & Bryant, 2001)
- *Test of Word Reading Efficiency (TOWRE),* (Torgeson, Wagner, & Rashotte, 1999)

INITIAL ASSESSMENT: A START-UP PLAN (Next steps for those who require further assessment)

Step 4. Decoding or word-recognition test

Example

- *Test of Word Reading Efficiency (TOWRE)* (Torgeson, Wagner, & Rashotte, 1999)
- *Roswell-Chall Diagnostic Test of Word Analysis Skills: Revised and Extended* (Roswell & Chall, 1997)
- *Wide Range Achievement Test 3 (WRAT-3)* (Wilkinson, 1993)

Spelling test (optional)

Spelling ability is closely related to word-reading ability because both require phonemic awareness, decoding skills, and visual memory (National Institute for Literacy, ARCS website, *www.nifl.gov/readingprofiles/FT_Match_Intro.htm*). Practically speaking, you may find it easy to introduce a spelling test because many adults include improved spelling among their learning goals.

Example

- *Wide Range Achievement Test 3 (WRAT-3) (spelling subtest)*
- *Test of Written Spelling (TWS-4)* (Moats, Larsen, & Hammill, 1999)

Step 5. Oral vocabulary test

Example

- *Peabody Picture Vocabulary Test—3rd edition (PPVT-3)* (Dunn & Dunn, 1997) (test of receptive vocabulary; learner matches spoken words with pictures)
- *Expressive Vocabulary Test (EVT)* (Williams, 1997) (learner generates synonyms)

You will need training to properly administer any of these tests.

Diagnostic Assessments of Reading. Another option for initial assessment is to give one or more of the subtests of the *Diagnostic Assessments of Reading (DAR)* (Roswell & Chall, 1992). This comprehensive instrument includes tests of word analysis (decoding), word recognition, spelling, oral passage reading, comprehension, and oral vocabulary.

Informal reading inventories (IRIs). IRIs also provide component assessment: word identification, oral passage reading, and comprehension, and some assess decoding and spelling, too. These instruments may yield good information for instruction, but unlike more formal tests, many have not been validated.

Examples:

- *Adult Diagnostic Reading Inventory* (Campbell & Brokop, 2001)
- *Bader Reading and Language Inventory*—3rd edition (Bader, 1998)
- Literacy Volunteers of America (LVA) *READ* Test, 5th edition (Colvin & Root, 1999)

You might find the form below useful in keeping a record of the initial assessment process for each adult learner.

INITIAL ASSESSMENT RECORD

Name_____ **Date**

1. Interview / /

2. Standardized test of silent reading comprehension / /

Test/Level_____

Score(s)_____

3. Oral reading sample(s) / /

Text level _____ / /

Number of samples _____

Average words per minute_____

Further assessment? **Yes** ☐ **No** ☐

	Date	**Not Applicable**
4. Decoding or word-recognition test	/ /	☐
Test(s)_____		
Score(s)_____		
5. Oral vocabulary test	/ /	☐
Test _____		
Score _____		

How Would Initial Assessment Work in Programs?

Following are examples of the process for three fictional students.

STEPHANIE AND ROB

On a Monday in early September, Stephanie and Rob walked into Old Town Learning Center to enroll in the adult education program. They filled out their enrollment forms and waited with the other new students to be called for an interview. The three adult education teachers who work at the Center conducted the individual interviews, each of which took 15-20 minutes.

Stephanie's interview. Stephanie told the teacher she liked the kids and teachers but didn't do well at school and had to repeat two grades. She also mentioned being ill frequently as a child and missing a lot of school. She gave up and dropped out before finishing the seventh grade. She explained that she had always been employed and enjoyed being a waitress because she liked talking to people. She was also interested in helping people and worked for a while at a nursing home. She said she mainly cleaned the rooms, but often talked to the residents and tried to be helpful. She eventually quit that job because she needed more money and, including tips, she earned more at the restaurant. Now she has learned that the community college has a certificate program for nursing assistants, and she would like to give it a try. She said she has always liked medical shows on TV, and thinks she would enjoy the hospital atmosphere. When asked about her other interests she mentioned baby-sitting, working in her parents' garden, singing in the church choir, and getting together with friends. She admitted she sometimes can't read the words in the church music as quickly as the others around her, so she always takes the music home, "works out" the lyrics, and then memorizes them.

Rob's interview. Rob talked about his early struggles with reading. He explained that he had special reading help in elementary school, and as a result, he was "pretty good at sounding out words." In spite of the extra help, he was always behind, had trouble getting his homework done, and never did well on tests. When asked about his reading problem, he said he wasn't sure that he still had a problem because he could read "most words." Rob talked about his job at a grocery store where he had worked for several years, stocking shelves. His supervisor thinks he's a good worker and has suggested that he could become a cashier. For that job, though, he would have to have a GED. When Rob started learning a little about the cash registers, he discovered he was fast and accurate and remembered he had always liked math much better than reading. He said his wife and parents have been encouraging him to think about a future beyond the grocery business, but he's not sure he's ready for a big change. He does want to get a GED, though, so he can at least move up in his current job. He told the teacher he is interested in playing cards, watching sports on TV, doing yard work, and playing with his 18-month old son. He also said he is interested in history and especially likes the history channel, although he never could learn much from the history books at school.

First steps in assessment. At the end of their interviews, the teachers explained to Stephanie and Rob that at the beginning of class on Wednesday evening, everyone would take the first of three tests: reading, math, and language. The teachers explained that the tests would identify what they knew and what they needed to learn. They reassured Stephanie and Rob that no one in the class but they and their teachers would see their test scores. The other tests were scheduled for the following week. The teachers also explained that they would be scheduling

STEPHANIE AND ROB (CONTINUED)

individual meetings with each new student during the first few class periods to listen to them read aloud. Rob had some questions about this. He said he could read silently but got nervous if he had to read aloud. The teacher reassured him that he would only have to read a short passage and they would be alone in the room.

Soon after assessment was completed the teacher met with each student briefly to explain the results. She had done an analysis of the errors on their standardized tests and so was able to talk in some detail about specific strengths and weaknesses that the test identified. For example, she told Stephanie she had done well on several items that required her to make an inference or draw a conclusion and also did a good job with the figurative language questions. (Stephanie wasn't sure what that was, so the teacher explained). But, she said, Stephanie had some trouble with the main idea questions. She told Rob that his oral reading showed that he was a careful, but slow reader, and noted that he didn't make any mistakes. Although she shared the test item analysis with the students, the teacher did not give them their scores as grade equivalents. Stephanie and Rob's initial assessment results are in the table below.

Name	Reading GE	Oral Reading: Words per min.
Stephanie J.	6.2	120
Robert L.	4.5	102

As you can see, Stephanie and Rob did not meet either of the cutoffs, so they both needed further assessment (steps 4 and 5). This testing was done individually by the teacher at the center who has that responsibility. She scheduled Stephanie's testing before class on Monday of the third week of the semester. Rob's appointment was also that week during the class's individual study time.

Stephanie's next steps in assessment. Stephanie's score on the decoding test was very high, but her vocabulary was somewhat limited especially in light of her goal. The teacher suggested that Stephanie could work on science and health vocabulary to prepare for the nursing assistant program. She explained that Stephanie would probably find she could sound out a lot of the difficult science terms more easily than most people, but she did have to learn what they all meant.

Rob's next steps in assessment. Rob's decoding skills were pretty strong (as he had said they were), but his oral vocabulary score was low. The teacher told him his word knowledge might be limited because he hadn't read very much. She explained that people learn lots of new vocabulary by reading. She suggested that he should work on building fluency (especially speed) and vocabulary. She also thought he might start his study with history materials since he probably has more knowledge and a broader vocabulary in this area of interest.

▲ ▲ ▲

CARRIE

Carrie found out about the family literacy program from her social worker. She decided it would be a good way to work on her GED and get her daughter into a preschool program at the same time. She didn't want to put off enrolling in the program and was glad to learn that she could start right away even though it was November.

Carrie dropped out of school in the 11th grade when she got pregnant and always intended to go back and finish her education. Although she has a job, she would like to get one that pays better and covers health insurance. She hopes she will qualify for a better job with a GED. Of course, she can only come to the program in the mornings because she has to be at work at 1:30, but she wants to give it a try. Carrie called the number the social worker gave her and was told to come in on Tuesday at 10:00 A.M. The family literacy program meets on Mondays, Wednesdays, and Thursdays, and they schedule intake and testing on Tuesday mornings.

Carrie's neighbor agreed to watch her daughter so Carrie could keep her appointment at the program. She caught a bus and was only a few minutes late. After an interview that included a discussion of Carrie's high school experience, the teacher felt that Carrie was comfortable enough with standardized testing procedures to be able to begin the assessment without a lot of preparation. She administered a short test to determine which level test to give and put Carrie to work on the reading portion of the assessment battery.

The teacher suggested that Carrie should take the math test on another day, but Carrie didn't want to put it off. However, by the time she finished the reading and math tests, she felt tired and was concerned that she hadn't done as well as she might have on the math problem-solving test. She was glad she would be taking the language and oral reading tests the following Tuesday. (The program's policy is to spread out the testing to ensure that learners are able to do their best work on each test.)

The teacher explained to Carrie that she could bring her daughter and join the class the next day. She said she would assign a buddy to help Carrie get familiar with the program routines. She also said that after Carrie finished her testing she would find a few minutes during the group's independent study time to sit down with her and start working on a learning plan based on her goals and test scores.

Carrie's assessment results:
Reading standardized test—10.6 GE
Oral reading—132 words per minute

Carrie didn't need any further assessment, so her teacher created a draft learning plan and they met to discuss her test scores and agree on the main goals of the plan.

▲ ▲ ▲

How Do We Decide Which Assessments to Use?

Even if you decide to try a simple initial assessment process like the one described above, you will have decisions to make about tests and other assessments. And of course, you may want to think about expanding your system later on. That means you'll want to know what kind of information you need and what types of assessments will provide that information. The tables on page 113 (adapted from J. Sabatini, personal communication, July, 2004) describe the formats and types of tasks typically used to assess the reading component skills. Think carefully about the descriptions, so you will understand the logic of the assessment tasks. You can use that understanding to make decisions about choosing tests. Understanding what a test requires of a learner also helps you to make a reasonable interpretation of the results.

Other (local) factors in decision making

When you can talk about what you are trying to measure and have an idea of the types of instruments that exist, you're about halfway to the point of taking action. But you still need to consider other important factors before making or recommending a decision about tests.

- Your present assessment system

  Which reading components are you already assessing and why? How satisfied are you with the information you get from the measures you're using? Is the information sufficient for all your assessment purposes? What else do you need to expand your capacity to teach reading effectively?

- Your setting

  Who administers assessments now? Who will be available to administer additional assessments? How can the teachers or test administrators be trained to give the tests and interpret the results?

- Your capacity to use assessment results

  If you expand your assessment system, will you be able to make use of the results in classrooms as they are presently operating? Do you need to make changes? Do you need other resources?

- Costs and capacity in the context of the longer term

  What can you afford? If you can make only one or two changes this year, what could you add next year to round out the system?

READING COMPONENTS AND TYPES OF ASSESSMENTS (PART I)

Reading Components	Typical Types of Tasks & Test Formats
Phonological/Phonemic Awareness ▸▸ Awareness of/access to the basic sound structure of oral language, specifically accessing phonemes	• **Elision tasks (phoneme deletion):** Measures how well an individual can say a word and then say what is left after omitting specified sounds • **Phoneme blending:** Measures how well an individual can listen to separate sounds and then put them together to make a whole word
Phonological Decoding ▸▸ The process of matching phonemes with the letters they represent and blending them together to "sound out" whole words	• **Non-word identification tasks (accuracy):** Requires accurate reading of pronounceable printed non-words (e.g., **hap**) presented in isolation (without a context), thus requiring use of decoding skills only • **Non-word identification tasks (efficiency):** Requires identification (naming) of lists of non-words within a fixed time limit; lists are typically ordered from simple, one-syllable to longer, multi-syllabic non-words
Sight-Word Identification ▸▸ Recognizing printed words by sight without conscious decoding, with information about pronunciation retrieved automatically	• **Word identification tasks (accuracy):** Requires reading of real printed words presented in isolation (without a context), thus requiring use of visual/spelling information only • **Word identification tasks (efficiency):** Requires identification (naming) of lists of real words within a fixed time limit; lists typically ordered from simple and frequent to more complex, infrequent words
Reading Fluency ▸▸ Accurate reading at the fastest rate that allows for the deepest understanding, with little conscious attention to reading mechanics such as decoding	• **Passage reading rate and accuracy:** Measured as the time in seconds it takes to read a passage combined with accuracy of reading • **Sentence reading fluency:** Measured as the number of correct responses to true/false sentence statements within a time limit
Vocabulary ▸▸ Knowledge of word meanings	• **Expressive vocabulary:** Task often requires naming objects or pictures of objects (recognition of the object/picture and matching to the appropriate word) • **Receptive vocabulary:** Task may require listening to a spoken word and identifying the picture/drawing that best captures the meaning of the word Also measured by selecting a synonym or antonym for a vocabulary term presented in a sentence or phrase
Reading Comprehension ▸▸ The process of extracting and constructing meaning through active involvement with text	• **Passage comprehension tasks:** Cloze assessment task requires identification of key words missing from passages Also measured by appropriateness of responses to questions about the content of a story read by the individual, with questions in multiple-choice format or asked and answered orally

(Source: adapted from personal communication, J. Sabatini, 2004)

PHYLLIS

In the fictional example below, Phyllis T., lead teacher at the Old Town Learning Center explains how they made decisions to expand their assessment system:

"The district decided to buy the TABE 9 & 10, so we were committed to the TABE for the next several years. We thought it would work well for accountability purposes, and we all knew how to use the diagnostic feature to get information for individual planning. Since the TABE now has a vocabulary subtest, we would get a vocabulary score in addition to silent reading comprehension. (We hope to find a way to add an oral vocabulary test next year.)

"We needed to expand our intake procedure, so we could get more information about prior educational experience and possible reading problems. We asked a group of teachers to research and present the possibilities for expanding the intake interviews. We now have a more informative interview process.

"We had never assessed fluency, so we needed to find a way to add oral reading to our assessment process. We decided as a first step in our new "reading profile system," we would use reading samples from one of the older textbook series to assess fluency. We had to train the teachers and be sure everyone was using the same passages and the same procedure, but at least we didn't have an initial outlay of cash for a test and formal training. We had to get the teachers together to discuss how to fit in this additional assessment. Since the process would only take a few minutes, we suggested that the teachers schedule three or four oral reading assessments during each class period while the rest of the learners were doing independent study or working in small groups. (Of course, if we want to track progress, we'll have to schedule ongoing assessments. How can we do that? We're not sure yet.)

"Another thing we didn't have was a way to assess decoding. We never thought we needed a test like that because we had been referring our low readers to the literacy council so they could have free private tutors. We had always just taken the adults' word for it if they said they couldn't read—or we looked at the TABE Locator Test score and referred them if they needed the Literacy-level test. We've always assumed we couldn't meet their needs in the classroom. But last year we started talking with the literacy council staff about working more closely with us, and we tried out a new collaboration this year.

"The council agreed to find three volunteers to work at our center to assist us in working with small groups and one-to-one with some of the weaker readers. In return, we provided training in the [fictional] ABC Reading System for several of our teachers and about ten of the council's volunteers. The ABC system is a structured curriculum for basic reading instruction, and we bought the training videotapes and brought in a facilitator to do a workshop on the system.

"We weren't used to working with volunteers, so it took a while to figure out how to provide the supervision and support they needed. Some of the teachers were concerned about turning over responsibility for the learners to people who might not be educated as teachers. We learned that it worked well to place the volunteers in classrooms where the teachers also had ABC training. That way, they had some knowledge in common and seemed to find it easier to work together. Then we tried (when possible) to steer the low-level readers to those classes.

"However, we had learned that decoding is an issue not only for beginning readers. We knew that some people who score in the higher ranges on the TABE might also have decoding weaknesses that could prevent them from making good reading progress.

PHYLLIS (CONTINUED)

"That meant we needed a way to assess decoding. We found a simple word analysis inventory online that had clear and detailed directions. (It's not standardized, so it wouldn't have been our first choice, but it's free and we had already committed to the costs of ABC training). Of course, we had to study it and do some training with all the teachers. It turned out that a couple of those who were most interested in reading took the lead on that.

"I think we should also investigate the standardized instruments. We would all feel more confident about the scores, and some of them assess more than one reading component, so it might be worth the investment for that reason, as well. Maybe we can put a new test in next year's budget.

"It looks like we'll have to wait till next year for oral vocabulary assessments, but maybe we could at least do a couple of "pilot" assessments this year—maybe a picture vocabulary or an expressive vocabulary test—if the district would lend us a speech-language therapist. Maybe we could refer a few students based on teacher recommendations and we could see what we learn from an oral vocabulary score.

"We are also going to check with the district office about getting a reading specialist and a speech-language therapist to talk with us about reading and vocabulary measures and making instructional decisions."

▲ ▲ ▲

Important assessment issues

Although your setting and resources will be important factors in your decision making, remember that practical considerations alone should not drive your program plans. You want to make the best possible use of the resources you have. Most important, you should choose measures that are recognized as valid and reliable because you are going to base important decisions on the results.

Evaluating assessment instruments. Validity and reliability data may be available from publishers, but these are complicated, technical concepts, and you might want an objective opinion. Consult the *Mental Measurements Yearbooks*[8] for detailed evaluations of many tests, no doubt including some of those you are considering. Another resource to guide your analysis is the short article, "Questions to Ask When Evaluating Tests"[9] (Rudner, 1994). A third option for evaluating instruments is the "National ALLD Report Card on Screening Instruments" developed for the *Bridges to Practice* learning disabilities project.[10]

Examining your practice. There's more to valid measurement than choosing good tests. What you and your program do with these instruments is equally important.

You must use instruments appropriately—for the purposes for which they were designed. And to get reliable and valid results, all those who administer assessments must follow the same procedures in scoring and interpreting scores. Teachers/test administrators must be trained in the proper use of each of the assessments they will

[8] Many editions of the yearbook have been published by the Buros Institute of Mental Measurements, University of Nebraska-Lincoln. To find reviews of a test, locate the appropriate edition at a college or university library or go on line at *www.unl.edu/buros/*

[9] Available online at *www.pareonline.net/getvn.asp?v=4&n=2*

[10] The report card is specific to learning disabilities screening instruments, but many of the assessment concepts are broadly applicable. It is in *Guidebook Two* of the *Bridges to Practice* materials available online at www.nifl.gov

administer or interpret. They should clearly understand what each instrument or procedure measures—what the scores mean and what they don't mean.

GE scores may be misleading. An adult with a test score of 6 GE, for example, does not necessarily have skills similar to a typical sixth-grader. And of course, an adult has much more knowledge and experience than a child. The advantage of grade-equivalent scores is that they allow you to compare abilities across components. This is important because different tests often have different kinds of scores and are hard to compare.

Standardized tests. Finally, you should consider for which purposes you need a standardized instrument. For outcomes measurement, especially when results will be reported to external stakeholders, you will need scores that have meaning to outsiders (scale scores or grade equivalents, for example) and may be used to make comparisons across classrooms and programs. Standardized measures that yield grade-equivalent scores also are useful in developing profiles, because they allow you to make fairly precise comparisons across the reading components, identifying relative strengths and weaknesses.

Consider all your assessment purposes as you make decisions. Be sure that your assessment system includes valid measures to address all your instructional planning and accountability needs.

Alternative assessments. And finally, remember that assessment is more than testing. You have many options for learning about adults' goals, interests, strengths, and needs. Informal measures may help to "round out" learner profiles and suggest ways to individualize instruction. The intake interview is your first opportunity to get to know the learner. Check-ins or meetings to revisit and revise goals, journal writing for self-evaluation, and of course, your observations of attention, participation, and attitudes may provide important insights for ongoing monitoring of learning.

How Does Initial Assessment Inform the Individual Planning Process?

If one of the primary purposes of initial assessment is to allow you to provide appropriate individualized instruction, you need to think next about how to use assessment results in planning. The first steps below cover the assessment-to-instruction process from initial assessment through development of learning plans. The next steps—trial lessons and revised or expanded learning plans—are described later in the chapter.

First steps in planning

1. Analyze test scores and other assessments to identify strengths and needs in each of the reading components and create an individual reading profile (see examples in this chapter).
2. Review the learner's enrollment paperwork, initial interview data, and stated learning goals.
3. Using this information, decide on the appropriate focus areas for reading instruction and draft a plan to address these needs. Keep in mind the individual's long-term learning goals, interests, and life experience, so you can, whenever possible, suggest relevant and interesting reading materials.
4. Meet with the learner to explain the assessment results and your plan. Encourage the learner to ask questions and make suggestions, so that he understands and feels

committed to the plan. By thoroughly explaining the purpose of the activities you propose and getting the learner's input, you show your respect for the learner and demonstrate that you are attending to his unique needs and goals.

In the ideal world, to create this plan you would next consult the cookbook of reading instruction and find just the right recipe. Since, once again, that is not the world we live in, you don't have such a cookbook. You will have to analyze assessment data and use what you know about reading and learning to develop learning plans, while reserving the right to amend and adjust the plans if necessary. You may consult a reading specialist in your organization or school district if you have access to such a resource. You may do a little research on your own to assess available learning opportunities (see Chapter 1, p. 5). But in the end, you will have to use professional wisdom to develop a plan, and see how it works.

From profiles to planning

For examples of profiles, consult the website, *Assessment Strategies and Reading Profiles: Adult Reading Components Study (ARCS)* at *www.nifl.gov/readingprofiles/*. The ARCS study identified 11 profile clusters based on 569 ABE students (from the original study sample of 955 adult learners). The site provides details on the characteristics of these clusters or types of learners. The clusters may help you to understand that the profiles of individuals in your program represent common patterns of strengths and weaknesses. The general instructional recommendations may help you to understand how to make individual learning plans.

The profiles featured below are the top three of the 11 profiles: those with the highest silent reading comprehension scores. General instructional suggestions for two of the profiles are adapted from the ARCS website and included here as examples—not recipes!

ARCS profile samples. The GED-level learners in the ARCS study include three distinct profile clusters. Although the average silent reading comprehension score for these adults was around 11 GE, their other component skills showed great variation. We'll briefly discuss the three clusters below.

Group	Profile Name	Silent reading comp. avg.	Word recog. avg.	Spelling avg.	Word meaning avg.	Reading rate: avg. words per min.
GED 1: Silent reading comp. G.E. 9-12	Tops	11.5	11.1	8.5	10.2	151
GED 2: Silent reading comp. G.E. 9-12	Good but need word meaning	11.1	10.3	9.8	6.1	139
GED 3: Silent reading comp. G.E. 9-12	Good but need print skills	10.9	6.9	4.7	7.1	129

- **GED Group 1,** as you can see, has strong skills in most component areas, with relative weakness in spelling and vocabulary (word meaning). But because these scores are averages, many adults who belong in this cluster have higher and lower scores. Learners at the lowest end of the range in spelling scored 6 GE. Those at the lowest end of the range in word meaning scored 8 GE. Because these adults are probably close to earning their GED certificates, they may want to build skills that will enable them to succeed in post-secondary education or employment training. In order to learn and perform in these settings they will need to improve their spelling and build vocabulary. The ARCS site offers these suggestions for instruction:

  Spelling:

  1. Assess their mastery of regular and irregular syllables in polysyllabic words. Teach or review all the irregular letter combinations and syllable types using word lists such as those found in the *Reading Teacher's Book of Lists* (Fry, Kress, & Fountoukidis, 2000).
  2. Select words that you think are also appropriate for vocabulary enrichment. Learning the meaning of a word fortifies attention to its correct pronunciation and spelling. The adult then learns everything she/he needs to use the word in both speaking and writing.
  3. Teach the use of computer spell-check programs. (But be sure they understand they must not rely on technology alone, because spell checkers don't catch usage errors, like substituting *here* for *hear*.)

  Word Meaning (Vocabulary) Enrichment:

  The ARCS interviews revealed that many of these adults were reading very little outside of class. That means they were probably not doing much to increase their vocabularies. The ARCS site suggests direct vocabulary instruction, especially focusing on words they will need if they go on to further education. The following suggestions for the GED 1 profile group are also found on the site:

  1. Teach the use of the thesaurus to find synonyms or other word substitutions.
  2. Assess their understanding of prefixes and suffixes to show how affixes predictably change the meaning of root words.

- The adults in **Group 2** were strong in every area but vocabulary. This finding is only partially explained by the fact that 42% of the learners in this cluster were non-native speakers of English. On a test of expressive vocabulary that requires the student to compose definitions of words, 50% gave, at best, "sketchy" definitions for words above GE 6 level. And this was true of the native as well as the non-native speakers of English.

  Although these adults cited further education and a better job as reasons for enrollment, it appears they will need more than a skills refresher to be successful in higher education. Not surprisingly, the primary recommendation for these learners is to build vocabulary. Specific suggestions include teaching prefixes and suffixes,

teaching the use of a thesaurus, and assessing knowledge of words on the Academic Word List (available online at *www.vuw.ac.nz/lals/research/awl/*

- **GED Group 3** learners have considerable weakness in print skills (word identification and spelling). In fact, although the average scores for these components are low, those at the lowest end of the range for this group scored much lower: 5 GE in word recognition and 3 GE in spelling. Their problems with word recognition likely contribute to their considerably slower reading rate. Not surprisingly, one of the suggestions for **Group 3** is to administer an assessment of decoding skills to identify which specific phonic elements need to be taught, and then to provide instruction in those elements. Phonics instruction will also be useful in improving spelling. Vocabulary instruction is another focus area for these learners.

NEXT STEPS FOR STEPHANIE & ROB

Completed profiles and learning plans for Stephanie and Rob are below. The reading profile form is adapted from one suggested in *The Reading Components Approach* (Strucker, 1997a). All tests and textbooks in these examples are fictional.

Reading Profile

Name: *Stephanie J.* **Age:** *44* **Native language:** *English* **Occupation:** *Waitress*
Last grade completed: *6*

Alphabetics: Phonemic Awareness/Word Recognition/Decoding/Spelling

Test used: *ABC Decoding Test*

Date/grade equiv.	*10-2/* ***16.9***	/	/	/
Test used:				
Date/grade equiv.	/	/	/	/

Fluency

Test or other measure used: Timed oral reading

Date/grade equiv.	/	/	/	/
Date/WPM	*9-16/* ***120WPM***	/	/	/
Date/WCPM	/	/	/	/

Vocabulary

Test used: *Fred's Oral Vocabulary Test*

Date/grade equiv.	*10-2 /* ***8.4***	/	/	/

Comprehension

Test used: *A Darn Good Reading Comprehension Test, rev. (DGRCT-R)*

Date/grade equiv.	*9-15 /* ***6.2***	/	/	/

NEXT STEPS FOR STEPHANIE & ROB (CONTINUED)

Individual Adult Learning Plan

Name *Stephanie J.* **Date** *10-2*

Long-term Goals (1) *Improve reading and math skills*

Date Set *10-2*

(2) *Enroll in Certified Nursing Assistant Program at community college*

Date Set *10-2*

Reading Plan

To meet my goals I need to work on these reading skills and strategies:

(1) *Increase rdg. fluency, including speed* (2) *Build vocabulary, esp. science*

(3) *Learn comprehension strategies* (4) *Learn study strategies*

I can use these strengths to build the skills I need:

(1) *Excellent decoding skills to figure out words* (2) *Decoding skill will also help with understanding words.*

(3) *Good general oral vocabulary & knowledge from nursing home experience* (4) *Good study habits (church choir) & people skills for coop. learning*

Materials & Learning Activities

Health Occupations workbooks & materials from CNA program? Science vocab. list; Guided oral reading practice to build speed—paired and tape-assisted reading; Personal dictionary of new words; Practice comprehension strategies and study skills

Notes:

The sample learning plan form here is one option. Other formats for learning plans (as well as orientation and goal-setting tools) may be found in The Comprehensive Adult Education Planner *(Mellard & Scanlon, 1998).*

NEXT STEPS FOR STEPHANIE & ROB (CONTINUED)

Reading Profile

Name: *Robert S.* **Age:** *30* **Native language:** *English* **Occupation:** *Grocery store, stock work*
Last grade completed: *9*

Alphabetics: Phonemic Awareness/Word Recognition/Decoding/Spelling

Test used: *ABC Decoding Test*

Date/grade equiv.	*10-1/* ***7.3***	/	/	/
Test used:				
Date/grade equiv.	/	/	/	/

Fluency

Test or other measure used: Timed oral reading

Date/grade equiv.	/	/	/	/
Date/WPM	*9-16/* ***102 WPM***	/	/	/
Date/WCPM	/	/	/	/

Vocabulary

Test used: *Fred's Oral Vocabulary Test*

Date/grade equiv.	*10-2 /* ***4.2***	/	/	/

Comprehension

Test used: *A Darn Good Reading Comprehension Test, rev. (DGRCT-R)*

Date/grade equiv.	*9-15 /* ***4.5***	/	/	/

NEXT STEPS FOR STEPHANIE & ROB (CONTINUED)

Individual Adult Learning Plan

Name *Robert S.* **Date** *10-2*

Long-term Goals (1) *Get a GED to qualify for a better job*

Date Set *10-2*

Date Set

Reading Plan

To meet my goals I need to work on these reading skills and strategies:

(1) *Increase fluency (speed & expression)*

(2) *Build vocabulary*
Learn context-clues strategies

(3) *Improve decoding skills*
(multi-syllabic words)

(4) *Learn comprehension strategies*

I can use these strengths to build the skills I need:

(1) *Decoding skills*
(use with syllables in long words)

(2) *Thinking & problem-solving skills*

(3) *History knowledge will help with GED Social Studies test*

(4) *Interest/experience with electronic cash registers may build confidence with computers*

Materials & Learning Activities

"Reading Refresher" series; Vocabulary skill books
Guided oral reading practice with tutor; Personal dictionary of new words;
Practice comprehension strategies; Decoding practice with syllable cards & workbooks

Notes:

How Does Ongoing Assessment and Planning Inform Instruction?

Of course, the assessment-to-instruction process involves more than initial assessment. Initial assessment can't tell you everything you need to know about what and how to teach each individual learner. Trial lessons can give you more—and more specific—information.

Next steps in planning for individuals

- Use trial lessons to get more information about learners and learning needs (see the following section on trial lessons). (If individual trial lessons are impossible in your setting, you might adapt the concept to use with small or large group instruction.)
- Use what you learn from these early lessons to flesh out the learning plans. Discuss these specifics with the learners and add details about materials and learning activities to the plans. Make other changes as indicated.
- Plan for group work: match each learner with others who have similar strengths and needs in the reading component areas, so you can easily group them for skills practice at appropriate levels. (See Chapter 9 for more on grouping.)
- Use ongoing informal assessment based on the learners' progress and your observations to make daily instructional decisions.
- Adjust plans over time, if necessary, to meet learners' changing needs and goals.

Trial lessons

What are trial lessons and how do they work? Trial lessons may serve two purposes: (1) to get specific information about learning needs that the initial assessment instrument/process often doesn't provide, and (2) to find out what kind of instruction and what types of materials are most appropriate for each individual (J. Strucker, personal communication, December 9, 2003). The examples below show how the process works. For other suggestions about trial lessons, consult publications such as *Diagnostic Assessments of Reading and Trial Teaching Strategies (DARTTS)* (Roswell & Chall, 1992).

Vocabulary instruction. Even though a vocabulary test may indicate that a learner needs work in this area, it doesn't tell you which words or types of words she/he doesn't understand. In trial lessons you could use the content word lists in publications such as the *Reading Teacher's Book of Lists* (Fry, Kress & Fountoukidis, 2000) to get a sense of vocabulary and general background knowledge in math, science, or social studies (J. Strucker, personal communication, December 9, 2003). By teaching words from these lists you may get answers to important questions:

- Where are the gaps in word knowledge?
- Can you work primarily on vocabulary or is it a larger background-knowledge problem?
- Should you consider using "shortcut" background-building materials: videos, history timelines, or biographical sketches of historical figures, for instance?

Comprehension-strategy instruction. To improve comprehension you can use trial lessons to identify subjects the learner finds interesting or knows a lot about. Knowing about interests and background knowledge will help you to select materials for instruction. You also might have the learner think aloud during oral reading of a high-interest passage to get an idea of where the comprehension problem lies (see page 80 for more on think-alouds).

According to Strucker (personal communication, December 9, 2003), typical problems related to or contributing to poor comprehension are lack of fluency and lack of background knowledge or knowledge of word meanings. You may see evidence of these difficulties during oral reading or a think-aloud. Another common problem is imprecise understanding of the functions of "signal words" (Fry *et al.* 2000). Common signal words and phrases, like *therefore, however, consequently, in contrast,* and *in other words* provide important clues to readers about the way information in one part of a text relates to another part. Introduce words on the signal words list in publications such as the *Reading Teacher's Book of Lists* (Fry *et al.*) to check on this aspect of vocabulary. In working with English language learners, you could also use trial lessons to assess their knowledge of basic English grammar and syntax (sentence structure and word order). If they don't understand the meaning of verb endings, for instance, they will have trouble with comprehension.

The trial-lessons concept is hard to implement in a classroom setting. If you have important questions about a particular learner, you might be able to design a trial lesson or two and have an aide or volunteer work with the learner. Or, if individual trial lessons as described above are not possible in your classroom, you might be able to adapt the concept, in short trial activities or mini-lessons with small groups or pairs.

Instructional approaches. The examples above illustrate the first purpose of trial lessons—identifying specific gaps in skills and knowledge. You also need to know what instructional strategies to use (the second purpose), and you can use trial lessons to experiment with different approaches. For instance, in working with vocabulary, what does it take to establish the word meanings in long-term memory? Is it helpful to discuss the meanings and do a word map? Is it better to have the learner compose and write sentences using the words? Does he know how to use a dictionary? You can find out by comparing the response to different approaches—how quickly words are learned, how comfortably and accurately they are used, and how well they are later recalled—and also by asking the learner what works best.

This second purpose for trial lessons may be especially important for struggling beginners who may have learning disabilities or other special learning needs. These adults may need multi-sensory techniques and lots of practice and review. It helps to find out up front so you can plan for the additional time that will be required and help adult learners to be realistic in goal setting.

The Assessment-to-Instruction Cycle

In summary, the process described above consists of four main steps:
(1) Initial assessment
(2) individual learning plans
(3) trial lessons
(4) revised or expanded plans and continuing instruction
In fact, of course, it doesn't end with step 4. It's a continuing cycle in which both formal and informal assessments guide your instructional decision making. If the learner is struggling, you try to figure out where the problem lies. Have you assumed too much? Do you need to back up and work on prerequisite skills? Might it make a difference to just slow the pace, and provide more coaching and review? Or should you try another approach? On the other hand, if you and the learner can see that skills are improving and knowledge is growing, you are not inclined to "fix something that isn't broken."

Of course, to make the best use of your observations and other assessment data, you must continue your own development to add to your repertoire of instructional options and build knowledge that enriches your professional wisdom. Adjusting instruction and trying new approaches requires knowledge, skill, and creativity. But it also takes management skills to meet the varying needs of individuals in a multi-level setting.

Meeting individual needs

The process described above is based on individualized instruction, which may be difficult or impossible to provide in your classroom. In the ideal situation you would be able to devote at least part of your instructional time to this kind of one-to-one work with learners. Especially for those with serious reading needs, providing anything less than this kind of instruction—as in large group work with adults with varied needs or the individual workbook-study format—amounts to a sacrifice of the limited time adults can give to learning. (Strucker, 1997b). But if that's your situation, you can only make the best of it for the time being.

How can you meet individual needs in the multi-level group setting? There are no simple solutions, but the suggestions in the next chapter may be helpful.

9

Planning Reading Instruction for Adults

Instructional planning involves both content and process. The content of a reading activity or lesson is determined by the reading-component needs of individuals and groups. This chapter will discuss ways to address the component skills in learning activities for adults with different levels of reading skill. The process of instruction involves general instructional principles, which are reviewed here first.

What Do We Know About Learning and Teaching?

Information about teaching adults to read abounds, but for decades adult literacy instructors have used programs and activities in the absence of definitive research that demonstrates their effectiveness. Such demonstrations are now emerging through the efforts of researchers and of developers willing to submit their programs to high quality evaluation. Without a strong research foundation, adult literacy teachers have in the past based their instruction on a range of philosophies and techniques, many of them "home grown" and created without the benefit of research into what works. Under such circumstances, how could teachers know which choices were best? The answer is: they could not. It is entirely possible that some adult literacy programs, or program elements, were highly or partly effective. But by and large, it was up to teachers to decide what worked best, and for whom, and sometimes these decisions were based on instinct, personal philosophy, or anecdotal information from other teachers

With the advent of scientifically based reading research, teachers can now plan instruction and activities with the confidence of rigorous scientific study behind their choices. The practices described below are based on the existing evidence-based research and offer helpful guidance. Begin with these proven approaches and, where science has not yet answered questions about adult literacy instruction use your professional wisdom to adapt them for your students.

The approaches suggested in this section are those most frequently cited in a number of reviews of the research on effective teaching in general and on the characteristics of effective instruction for students with learning disabilities (LD). The LD research is applicable because many adults in basic skills programs have the characteristics of a reading disability (Chall, as cited in Kruidenier, 2002). Although this

Similar models and approaches are often called by different names. For instance, "explicit teaching," "direct instruction," "active teaching," and "expository teaching" are terms you may be familiar with that have been used by different authors to describe similar approaches (Woolfolk, 1998). As you read this summary and other literature, don't be put off by the variety of labels. Look for common elements and distinctive features.

summary does not represent a complete survey of the literature, you may find this sampling of the research helpful in your analysis and decision making.

Of course, most of the research is based on experience in children's classrooms, but to the extent that K-12 students and adult learners have similar characteristics, the findings may be applicable in ABE and family literacy settings. So consider the principles described on the next few pages and think about how they might apply to what you know about reading instruction for adults.

Principles of effective instruction

The research reviews have a lot in common. Featured prominently are references to sequencing of tasks, the need for explanation, modeling, and guided practice, and the importance of multiple practice opportunities. Several of the principles echo the findings of the National Reading Panel, so we can make a direct connection to reading instruction. Many of these features of effective instruction are represented in the following models or general approaches, repeatedly found to be effective:

- Explicit or direct instruction
- Strategy instruction
- Scaffolded instruction
- Intensive instruction or active engagement
- Structured or segmented instruction

You will notice that the several of the approaches have similar features, and you should not see them as completely distinct. There is considerable overlap among them.

Explicit instruction. Explicit instruction is one of the principles identified in a research synthesis on effective teaching (Ellis, Worthington & Larkin, 1994). The authors cite three features of this approach:

- Teachers using explicit instruction make goals, objectives and expectations explicit.
- They make instructional content explicit.
- They make the structure of the lesson presentation explicit.

In explicit teaching, you make clear the objectives and purpose of each learning activity and explain how each activity relates to broader learning goals. For example, you might begin with an activity to access prior knowledge, build background knowledge, and show how the skill or content being addressed relates to the bigger picture. Then during the instructional process, you return frequently to the big picture to maintain the learners' awareness of the purpose and use of the skill. ("You need this so you can . . . This is the first step in learning to . . .")

You address all aspects of the learning task: how to think about it, how and when to perform the task or use the information, and how to evaluate the task. You show learners what good performance "looks like." Leaving nothing to chance, you check on the required underlying skills and knowledge and then work through each step (National ALLD Center, 1999). You teach clearly and directly by explaining and modeling the skill or concept,

guiding learners as they practice, and providing many opportunities for application of the skill to ensure that they can generalize (transfer) their learning to other contexts and situations (Mercer & Lane, 1996; Mellard & Scanlon, 1998; Woolfolk, 1998).

Strategy instruction. Strategy instruction is not designed to teach content; instead it teaches learning tools. Strategy instruction aims to teach learners *how* to learn effectively, by applying principles, rules, or multi-step processes to solve problems or accomplish learning tasks. Examples of strategies include phonics rules, ways to monitor comprehension, procedures for decoding multi-syllabic words, tips for using context clues to define words, and test-taking strategies.

In teaching strategies, you model your thought processes, demonstrating when and how to use the strategy and then prompting or cueing learners, as needed, when it is appropriate for them to use a strategy that has been taught (Ellis *et al.,* 1994; Swanson, 1999; and Taylor, Pressley, & Pearson, *www.education.umn.edu/CI/taylor/Files/EffTchrspaper.pdf*).

Scaffolded instruction. Scaffolded instruction is the process of supporting learners in various ways as they learn, and gradually withdrawing supports as they become capable of independent performance of a task or skill. Supports include clues, clarifying questions, reminders, encouragement, breaking the problem down into steps, "or anything else that allows the student to grow in independence" (Woolfolk, 1998, p. 47). According to Swanson, in scaffolded instruction, students are viewed as collaborators and the teacher as "a guide, shaping the instruction and providing support for the learning" (Swanson, 1999, p. 138). This is an interactive process that bases instruction on learners' prior knowledge, provides needed support, and gradually removes the support as it becomes less necessary (Ellis *et al.*, 1994).

Intensive instruction. The two elements of intensive instruction are active learning and time. Intensive instruction involves active learner engagement and plenty of time on task (Ellis *et al.*, 1994; National ALLD Center, 1999). Students learn more when they are active, that is, not just listening or watching, but applying "focused, sustained effort on the content or task" (Mellard & Scanlon, 1998, p. 293). For example, they might be using a decoding strategy on an unfamiliar word, practicing sight words with flash cards, participating in a discussion about a text, working to solve a comprehension problem, or creating a "map" or other graphic organizer. And, as might be expected, they learn more when they spend more time engaged in such activities. Although it may seem like "over-learning" for average students, struggling learners usually require multiple and frequent practice opportunities. Intensive instruction has also been described as requiring a high degree of learner attention and response and frequent instructional sessions (National ALLD Center).

Structured/segmented instruction. Structured instruction has been defined as the act of "systematically teaching information that has been chunked into manageable pieces"

(National ALLD Center, 1999). Complex skills or large bodies of information are broken into parts, which are taught systematically according to a planned sequence. An approach that is described similarly has been termed "segmentation" (Swanson, 1999). You must analyze each task and break it into its component parts, and then after teaching the parts systematically, bring them back together so learners are aware of the process or concept as a whole.

You have probably noticed that these approaches are similar to each other, and when used together, would seem complementary. It's easy to imagine what teaching looks like in a classroom where these methods prevail most of the time.

Many of these principles are based on reviews of instruction with the full range of learners in children's classrooms. Do you think these approaches are likely to work well with the learners in your class?

Key features of effective instruction: A summary

- **Explicit instruction**
  - Make goals, lesson objectives, activities, and expectations clear
  - Make connections between lesson activities and broader skill goals
  - Address background knowledge and prerequisite skills
  - Explain and model all aspects of the task
  - Assume nothing and leave nothing to chance
- **Strategy instruction**
  - Teach learning tools: principles, rules, or multi-step processes to accomplish learning tasks
  - Model and demonstrate; prompt and cue learners to use strategies
- **Scaffolded instruction**
  - Provide supports for learning as needed: breaking into steps, providing clues, reminders, or encouragement
  - Withdraw support gradually as it becomes less necessary
- **Intensive instruction or active engagement**
  - Keep learners focused, active, and responding
  - Provide plenty of "time on task"
- **Structured or segmented instruction**
  - Break information and skills into manageable parts
  - Teach parts systematically and in sequence
  - Bring the parts together to re-focus on the whole

Responding to individual differences

Variety is the rule in adult classrooms. Because individuals differ in many ways, the effectiveness of a strategy or technique can vary from one learner to another. Because of

differences in early school experiences, perceptions of the nature of teaching and learning, personal histories, cultural differences (including expectations about schooling and the teacher's role), special aptitudes or special learning needs, and (of course) current life stressors, individuals often respond in unanticipated ways to even the most well-planned instruction.

Given this variety, what do you do? First, of course, choose teaching strategies that research says have the greatest chance of effectiveness, but also, with the learners and setting in mind, use your professional wisdom in applying them.

- Be sensitive and aware of learners' needs and preferences
- Be explicit with learners about the purposes of classroom activities
- Talk with individuals (if a direct approach seems appropriate) to identify problems or concerns
- Be patient; give instructional strategies time to work
- Be flexible and creative in applying strategies; make adjustments in response to individual differences

Planning Reading Instruction: Who Needs What and When?

One might assume that the alphabetics skills are learned first, and then as accurate word identification and fluency develop, the focus of teaching and learning shifts to comprehension. In fact, as discussed earlier, literacy learning is not such a simple, linear process. The reading components interact and reinforce each other.

Phonemic awareness precedes and supports acquisition of decoding skills, but readers don't get to be experts at phonemic awareness and then learn to read. It appears that although phonemic awareness is an important foundation, it continues to develop as reading skills increase. Learning to read actually increases phonemic awareness (Kruidenier, 2002, Chard & Dickson, 1999).

The relationship between fluency and comprehension also appears to be reciprocal ("Assessment Strategies and Reading Profiles" website).[11] Fluency (accuracy, rate, and expression) is vital to understanding the written word. Increasing fluency improves comprehension. At the same time, fluency depends to some extent upon comprehension. Without background knowledge and vocabulary in the subject matter, a reader doesn't know how to read a text with phrasing and expression.

Because these interactions are complex, and because adult learners' profiles are typically uneven, with strengths in some components and weakness in others, it makes sense to include all needed component areas in lessons as frequently as time allows. Ideally, the proportion of time spent on one or another component varies depending upon individual needs, but when planning for groups it's safe to assume you'll have to address most of the components. Research shows that most ABE and family literacy learners need work on fluency, vocabulary, and comprehension. Many also need work on decoding skills. The challenge is to integrate the needed components to create a well-paced lesson with the right balance between review, new learning, and practice.

[11] Part of the National Institute for Literacy site with data from the Adult Reading Components Study (ARCS) *www.nifl.gov/readingprofiles/*

0-3 GE	4-7 GE	8-12 GE
Print skills • **Decoding:** A structured program that includes phonemic awareness, letter-sound relationships, common rimes (word patterns) and important phonics rules; high-frequency words (sight recognition) • **Fluency:** Decoding practice; guided repeated reading for accuracy and speed	**Print skills** • **Decoding:** Structural analysis: e.g., prefixes and suffixes; review of needed rules and letter sounds • **Fluency:** Paired reading or tape assisted reading for accuracy and speed	**Print skills** • **Decoding:** Multi-syllabic words as needed • **Fluency:** Guided repeated reading for speed, as needed
Meaning skills • **Fluency:** Oral reading for phrasing and expression • **Vocabulary:** Context clues for word meanings; signal words; Important goal-related words • **Comprehension:** Pre-reading strategies (e.g., accessing prior knowledge); question answering; simple graphic organizers (e.g., KWL & story structure); functional reading and writing (e.g., forms); reading and discussion of interesting or goal-related texts (may also involve listening to texts that are too difficult for independent reading)	**Meaning skills** • **Fluency:** Paired reading or performance reading for phrasing and expression • **Vocabulary:** Words in texts; common prefixes and suffixes; signal words; context clues for word meanings; important goal-related words • **Comprehension:** Comprehension monitoring and repair strategies; graphic organizers; question answering; question generating and QARs (question-answer relationships); cooperative learning; functional reading and writing; reading and discussion of interesting/goal-related texts (may also involve listening to more difficult texts)	**Meaning skills** • **Fluency:** Performance reading for phrasing and expression • **Vocabulary:** Words in texts; common roots, prefixes, and suffixes; dictionary use; academic/content-area words (e.g. science and social studies); other goal-related words • **Comprehension:** Comprehension monitoring; question generating and QARs; graphic organizers; summarization; multiple strategies; cooperative learning; reading in academic content areas in preparation for further education (depending on goals); reading to build background knowledge; other interest- and goal-related reading activities

Time may not permit you to follow this suggested pattern perfectly in every lesson, but you can at least be aware of this guideline and be sure you don't regularly fail to address any skills that assessment indicates are important. The following table includes examples of skills and activities and shows how the content and emphasis varies across learner levels.

Planning Reading Instruction: Structure and Sequence of Activities

Earlier in this chapter we summarized the research on effective teaching, which has obvious and direct applications to the structure of reading lessons. Research supports the following sequence for teaching basic skills (National ALLD Center, 1999 and Swanson, 1999). You can use it with any of the strategies and activities described in this book.

Sequencing basic-skills instruction

- **Introduction and purpose**

  Explain the purpose and objectives of the skill or strategy. Show how it relates to broader objectives, i.e. how it fits with the goal of improving reading comprehension or building vocabulary or improving spelling skills.

- **Explanation and modeling**

  Introduce the skill by explaining and demonstrating. Break the skill into parts or steps, and teach them one by one. Give several examples of how and when it should be used. Include non-examples, too, if applicable: "This is what it isn't; here's an example of a situation where you wouldn't use this skill."

- **Guided practice with feedback**

  Provide plenty of opportunities for learners to practice the skill or strategy, and pay close attention so you can help if they get stuck, and correct them if they start doing something wrong. Sometimes we are uncomfortable correcting adults, but it does no good—and may do considerable harm—to practice incorrectly. They need multiple opportunities to do it right. Guided practice might take a long time, because you need to remain at this stage until the learners are successfully using the skill or strategy. (In other words don't move on because time on the clock is running out. Continue on another day if need be. Re-teach if necessary.)

- **Independent practice**

  When you and the learners feel fairly confident that they've got it, ask them to practice on their own, perhaps as homework, and perhaps applying the skill in another context, with another type of material.

The importance of review

Regular and frequent review rounds out this sequence. Rosenshine's "six teaching functions," based on the research on effective instruction, include review at the beginning and end of the above sequence (Rosenshine & Stevens, as cited in Swanson, 1999 and in Woolfolk, 1998). He would begin with review of the previous days' work and include weekly and monthly review and assessment.

Lesson planning

This book does not offer a model for a reading lesson plan. The scheduling and grouping suggestions in the next section have to do with managing instructional time and using small groups to create homogeneity within the heterogeneity of a multi-level class.

For details on lesson planning, you might consult one of the structured reading programs, which include specific lesson sequences with recommended times for each lesson component. As indicated earlier, you may want to learn about one of these programs to teach beginning reading. Although the lesson plans are intended for beginners, you may be able to adapt them for mid-level learners.

Grouping in Multi-Level Classes: How to Teach What?

One way to manage multi-level instruction is by varying the format: using small- and large-group work and individual study. By grouping learners with common needs and goals, you can teach skills at different levels with different texts. And individual study time allows better readers to work at their own pace on specific needs identified by

assessment, while a teacher or aide works with individuals or groups on basic decoding skills, for instance.

Using varied groups and activities offers other benefits as well. Individual study provides a measure of privacy, and many adults appreciate being able to practice without putting their mistakes on display. But these same individuals may enjoy social interaction, too, and may learn a lot from each other through discussion and other group work. Such activities provide a way to build vocabulary and background knowledge in a variety of subject-matter areas. In addition, some adults in basic education programs—even those who have been successful in work and other life activities—carry vivid memories of school failure. They may be relieved to discover they are not alone in their struggles and may enjoy learning in a collaborative classroom, where they can help and encourage each other. Finally, varying activities allows you to address several of the reading components in each lesson, and the changing pace keeps people interested.

What kinds of learning objectives are most appropriate for different kinds of groups? Consider the lists below and think about how you might use large groups, small groups, pairs, or individual study with your class.

Instructional format options

Whole-class or large-group activities

- Teaching or reviewing commonly needed skills (context clues or comprehension strategies, for instance)
- Teaching vocabulary
- Building background knowledge with videos or speakers
- Reading aloud by teacher (to model fluency or build background knowledge in content areas)
- Discussion of videos, speakers, reading, class projects, etc.

Small-group or pairs activities

- Level-appropriate skills practice
- Repeated oral reading for fluency development
- Collaborative learning (constructing graphic organizers or working on class project "committee" assignments)
- Discussion of readings on limited-interest topics
- Basic reading "classes" for beginners

Individual study

- Journal writing
- Workbook study and other practice (work sheets, flash cards)
- Computer-assisted instruction
- Silent re-reading of classroom texts

- Teacher- or tutor-guided repeated oral reading
- Tape-assisted repeated oral reading
- Tutoring
- Short-term help with life-needs or goal-related literacy tasks

Profiles and grouping

Because individual adults' profiles are often uneven, you will probably need to form different groups for different activities. Although one group of people in a class might need to work on building fluency, they might not all have similar decoding problems. Another group might have similar reading comprehension scores allowing them to practice a new comprehension strategy together using the same material, but some members of this group might need to work with others on vocabulary or fluency.

In some programs, adults are assigned to classes according to their skill levels. Even these classes show considerable heterogeneity across the components, but if the range of decoding skills isn't too great, teachers can work more often with the whole group. In a multi-level group, managing instruction to address individual needs may require varied activity formats and flexible grouping.

The examples in the illustration on the following pages reflect a fictional teacher using her professional wisdom to group her students in order to apply what she has learned about effective reading instruction. You might use her ideas as food for thought—input for brainstorming as you approach your own planning.

To see how this might work, consider the following example. The learners are fictional of course, but their test scores are real. The individual profiles are based on assessment data from adult learners participating in research studies (J. Alamprese, personal communication, July 2004 & D. Mellard, personal communication, July 2004).

ELIZABETH

The instructional plans described here for the Mid-City Learning Center class are not based on the researchers' data. They are presented as illustrations and possibilities only.

The individuals profiled in this illustration are not a random sample of the learners in these studies. They were chosen as examples, to represent a range of learners. The test data used in the illustration are a small sample of the data collected by the researchers.

Elizabeth K. has been teaching at the Mid-City Career Center for 8 years. The local ABE program runs three or four classes at the Center every year, and Liz usually has a mixed-level group of learners. The ESL students are in a separate class, but some of the students in the ABE/GED class are immigrants whose first language is not English. They enroll in ABE because they already have good conversational English skills and/or because they have come as far as the ESL class can take them, and they want to earn a GED.

For years, Liz gave the TABE test and used the results to put together study plans for the GED and pre-GED students. She tried to work one-to-one with the poor readers, but often felt she didn't really know how to help them. Last year, things began to change. The district used special grant money to provide a year-long series of teacher workshops on reading. As part of the reading initiative they also invested in additional reading assessments, and now the teachers have access to training, materials, and even assistance from specialized district staff to help with administering and interpreting the tests.

Now all adults who enroll take a set of assessments covering four component areas:

- Silent reading comprehension
- Oral vocabulary
- Fluency (the test measures speed and accuracy in reading lists of common words at increasing difficulty levels.)
- Decoding (the test requires the learners to decode pseudo-words, like **pag**, **sike**, and **fessin**.)

Assessment is usually completed within the first two weeks.

ABE/GED Class

Most members of Liz's Tuesday and Thursday evening class enrolled and completed testing within the first few weeks of the school year. Liz met with each student to discuss test results and create individual learning plans. She explained that she would do her best to help them to build needed skills and make progress toward their individual goals. She encouraged them to attend faithfully, to ask for help when they were having a hard time, and to practice their skills outside of class as frequently as possible.

Following are the major goals identified by the class members at enrollment:

- **Michael B.—**Improve basic skills
- **Jason D.—**Improve reading skills and help children with schoolwork
- **Sarah J.**—Get a GED and prepare for community college
- **Luan K.—**Improve English reading skills
- **Keisha N.**—Get a GED
- **Jin P.—**Improve reading skills
- **Brian P.—**Get a GED
- **Kyle T.—**Get a GED and a job
- **Juan V.—**Improve reading skills and get a better job

Assessment results for the members of this class are in the following table.

Mid-City Career Center
Tuesday & Thursday ABE/GED Class
Reading Component Assessment (Grade-Equivalent Scores)

Student	Decoding GE	Fluency GE	Vocabulary GE	Reading Comprehension GE
Michael B.	4.9	3.2	4.7	3.4
Jason D.	2.4	2.6	6.9	5.8
Sarah J.	16.9	2.2	8.4	6.2
Luan K.	5.5	5.4	5.6	5.4
Keisha N.	2.4	2.4	4.9	4.9
Jin P.	14.4	2.6	5.1	3.1
Brian P.	7.8	4.6	8.4	3.3
Kyle T.	11.9	8.0	7.7	6.2
Juan V.	4.4	2.8	4.7	4.0

Source: Abt Associates Inc. (2004). ABE Database. Bethesda, MD: Author.

Of course in a group, instruction can't be entirely individualized. Liz explained that her plan for each class period would allow some time for individual study focused on goals, some activities involving the whole class, and some small-group and pairs work. She said she would try to group people based on their skills, goals, or interests, and that groups would vary depending on the objective of each activity.

As a first step in planning, Liz looked at the test data and learning plans and made lists of the learners who needed the most work on each of the component skills.

The reading components: Who needs the most work?

- ***Decoding:*** Michael, Jason, Luan, Keisha, and Juan
- ***Fluency:*** Everybody! (except maybe Kyle)
- ***Vocabulary:*** Michael, Jason, Luan, Keisha, Jin, Juan (Kyle? Since other skills look good, maybe it's vocabulary that's limiting comprehension?)
- ***Comprehension:*** Everybody! (Maybe some of the comprehension strategies could be introduced in the whole-group setting. If the demonstration texts are too difficult for some of the learners, they could just listen to them, and then practice the strategies with simpler material.)

Next, using this analysis, she created a schedule for addressing the needed components on a regular basis. She didn't have any proven guidelines to follow in allocating the time, but she thought this plan was worth a try.

Tuesday	Thursday
Decoding group	
Decoding (XYZ program) – Michael & Juan (20-30 min.)	Decoding (XYZ program) – Jason & Keisha (20-30 min.)
Whole class	
Fluency practice (15 min.)	Fluency practice (15 min.)
Comprehension-strategy practice (30 min.)	Comprehension-strategy practice (30 min.)
Vocabulary (20-30 min.)	

Liz decided to set aside time every class day (both Tuesday and Thursday) for work on fluency and comprehension. On Tuesday, in addition to the 45 minutes spent on these activities, she planned to focus on vocabulary: whole-group and small-group work on word-learning strategies and some direct instruction on new words, too. She decided that those who needed to improve basic decoding skills could meet with the aide, who was trained in the (fictional) XYZ program for basic reading instruction. The aide could work with them one-to-one or in pairs, scheduling some students on Tuesday and the others on Thursday. She also made tentative grouping plans based on common needs and strengths. (Liz devised this schedule to make the most of the limited class time available. Although far from ideal, it does dedicate time to explicit reading instruction, while allowing time for math and writing and perhaps individual study or tutoring.)

Following is a detailed outline of Liz's plan.

Mid-City Career Center:
Tuesday & Thursday ABE/GED Class
Reading Schedule

Decoding (Phonics Instruction)

Who	When	How
Michael & Juan	Tuesday	**XYZ program study** (with aide) Tutoring or pairs work
Jason & Keisha	Thursday	**XYZ program study** (with aide) Tutoring or pairs work

Fluency

Who	When	How
Everyone	Tuesday & Thursday	**Repeated oral reading – Speed-practice pairs** (based on similar fluency and decoding scores): • Jason and Keisha • Sarah and Jin • Michael and Juan • Luan and Brian Kyle could work with an aide on repeated oral reading of GED workbook selections to build speed. ***OR*** **Repeated oral reading – Accuracy-practice pairs** (decoding emphasis): • Jason and Keisha • Michael and Juan • Luan and Brian Sarah, Jin, and Kyle don't need decoding, so they could work on phrase reading, practice with books on tape, or prepare a poetry or drama performance.

Comprehension-Strategies

Who	When	How
Everyone	Tuesday & Thursday	Whole group & small-group activities Small groups: • Sarah, Kyle, Jason, • Luan, Keisha, Juan • Michael, Jin, and Brian

Vocabulary		
Who	**When**	**How**
Everyone	Tuesday	**Words for the week activities** Whole-group and small-group word study/review based on units: signal words, GED science words, GED social studies words, health words, etc. **Word-learning strategies** Small-group, level-appropriate practice on dictionary skills, context clues, common prefixes, etc. **Vocabulary pairs & groups:** • Brian and Sarah • Jason and Kyle • Michael and Juan • Luan, Keisha, and Jin

Of course, this kind of teaching was the result of considerable thinking, problem solving with other teachers, and the inevitable trial and error. It took a while to really understand what the test scores meant, and figure out how to use the information. Liz started with a couple of reading activities, figured out how to make them work with different skill levels, and then gradually expanded the focus on reading. It was an exciting, but sometimes intimidating challenge the first year.

This year, however, Liz was feeling more confident—that is until she learned about the site coordinator's latest plan. Marie explained that she wanted Liz to take on another class. This group had been part of a special reading project last year. A good number had enrolled again this year, but the teacher had resigned unexpectedly. Could Liz take this group, too, she wondered?

Reading Project Class

Teaching another class sounded fine to Liz because she was really beginning to enjoy teaching reading, and with this group she would have more time to focus on it. But then she got the students' files and saw they had all been recently tested as part of a follow-up for the special project. They had taken several tests, but they weren't the ones Liz was using and the scores were percentiles, not grade equivalents. Since Marie and Liz agreed it didn't seem right to give them another battery of tests, Liz said she would do the best she could with the test data. "So much for feeling comfortable," she thought. "I guess I'd better learn something about these tests ASAP."

Here's what she found out:

- The phonemic awareness test the students took was a phoneme deletion task. They were asked to repeat a word with one phoneme omitted (i.e. "say **spark** without the /s/"). Liz thought this was a fairly difficult task, especially for poor readers, and it certainly identified the poor readers in this group fairly accurately.
- The decoding test was similar to the one her other students took. It required decoding of pseudo words. They look like real words and can be "sounded out" using phonics principles, but have no meaning (**sek, tob,** etc.).
- The fluency score was based on a timed reading of a story or passage.

- The oral vocabulary test was a measure of receptive vocabulary that asks students to identify the picture that represents a spoken word.
- The comprehension score was based on the appropriateness of a student's answers to questions about the content of stories she read silently.

Mid-City Career Center
Tuesday & Thursday Reading Project Class
Reading Component Assessment (Percentile Scores)

Student	Phonemic Awareness	Decoding	Fluency (Rate)	Oral Vocabulary	Reading Comprehension
Lisa A.	2	16	9	45	5
Amy C.	63	86	37	82	25
Monte D.	50	19	5	63	25
David J.	1	13	5	4	2
Emily L.	16	25	16	58	37
John M.	1	25	16	18	2
Andres M.	2	42	5	37	25
Tonya T.	.4	14	5	19	5
Catalina W.	37	18	5	14	5

Source: D. Mellard, 2004

Next Liz decided to refresh her memory on percentile scores. She knew that a percentile rank wasn't the same as the percentage of correct items on the test, but she wanted to be sure she understood. Here's what she learned:

> *A percentile rank score shows the percentage of people in the test's norming group who scored at or below a particular raw score. So if a student is at the 75th percentile, we infer that 75% of people who took the test had the same or a lower score, and only 25% scored higher. On most measures, most of the population clusters around the middle, that is, around the 50th percentile.*
>
> *Percentiles do not represent equal intervals. That means that a difference of 5 percentile points at the low end (between the 10th and 15th percentiles, for instance) probably represents a much greater difference in raw scores than 5 percentile points in the middle of the range (say between the 47th and 52nd percentiles).*

Liz discovered that the scores had been converted to percentiles because the different tests had different kinds of scores that were impossible to compare. The conversion to percentiles put all the scores in the same terms, so a teacher could make comparisons across the components.

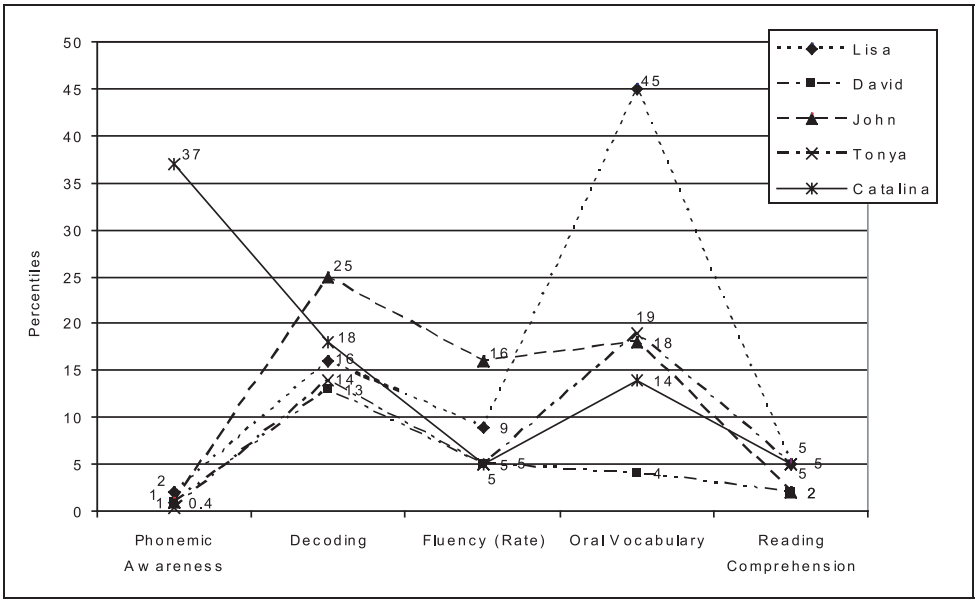
With that background in place, Liz looked again at the scores and noticed that this group had one thing in common with her other class: they all needed work on fluency,

with the possible exception of Amy. She also noticed that the silent reading comprehension scores suggested two clearly defined groups.

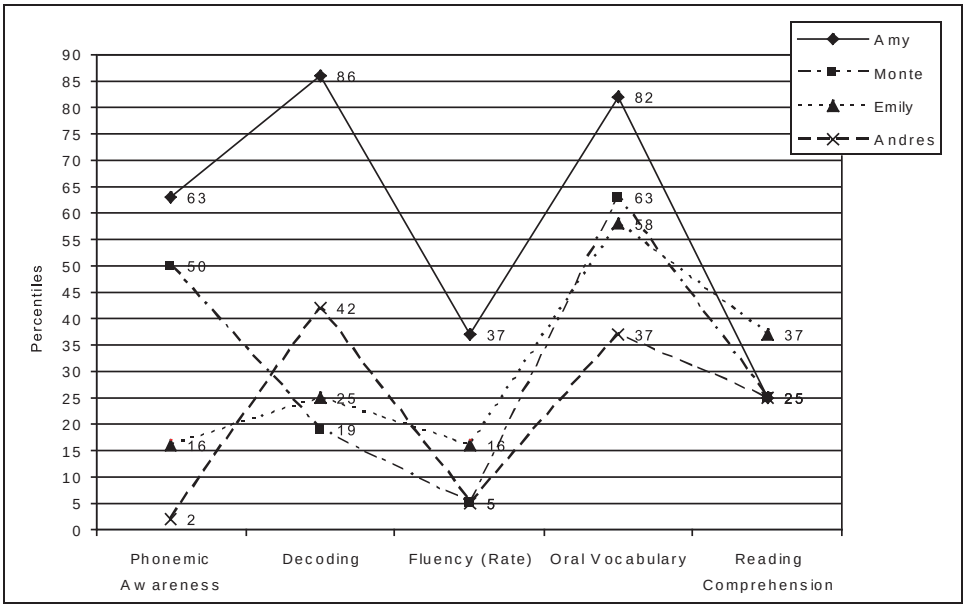
- Very low or beginning readers: Lisa, David, John, Tonya, and Catalina
- Poor readers within the average range: Amy, Monte, Emily, and Andres

As she looked at the individuals, she saw that David's scores were extremely low across all components. His was a very flat profile. She found herself wondering about Amy's scores. All her scores were well above average except for fluency and comprehension. She also noticed that Lisa, Monte, and Emily's scores were similar in that all showed poor decoding skills combined with much better vocabulary scores. Monte, unlike the others, though, showed strength in phonemic awareness. Liz thought that might mean he would respond well to phonics instruction.

The former teacher's notes showed that the very low readers had been receiving reading instruction in the (fictional) XYZ program during one half of each class period. But Liz noticed that even they showed considerable variety in the component skill areas. Lisa's vocabulary score was close to average (near the 50th percentile), John's decoding and fluency scores were considerably higher than the others, and Catalina was comparatively strong in phonemic awareness. The following graph shows how this group varied despite their similar comprehension scores.



The higher group showed even more variety.



Liz really liked the way the table and charts depicted the class profile. She decided she would see if someone could help her make something like these for her ABE/GED class, too.

The test scores would be the most important source of information for her planning, but Liz knew it was important to know more about the students as individuals so she could be aware of special needs, as well as goals and interests. This kind of information would be helpful in choosing appropriate learning activities for individuals, selecting reading materials, and grouping learners based on common goals. So next she read the enrollment interview notes, goal forms, and learning plans in the students' folders. This is what she learned:

> ***Lisa*** *had a reading problem as a child, but isn't sure she ever had any special help with reading in school. She completed the 10th grade and at the time of enrollment last year, had a job cleaning rooms at a motel. She wasn't getting full-time hours and therefore didn't have full benefits. She was still living with her parents because she couldn't afford a place of her own. She wasn't sure what kind of work she wanted to do, but said she knew she had to improve her reading in order to be independent of her parents.*
>
> ***Amy*** *talked openly in the interview about the need to improve her reading skills, but she said she didn't remember having a reading problem as a child and managed to complete the 12th grade. She had a long-time relationship with the father of her two children. She said he had a good job, so they got by pretty well even though she only worked part-time, 10-15*

hours per week, according to her enrollment form. She said she would like to be able to help her kids with homework and was concerned that one of them may have a reading problem.

***Monte** doesn't remember having a reading problem as a child. He finished the 10th grade. He has a disability and was referred to the program by his vocational rehabilitation counselor. He was working 20 hours per week in a local factory at the time of enrollment. He was receiving a disability pension, but the disability was not specified. (There was no indication of a physical problem, and Liz surmised from notes made by the teacher that his might be a mental health problem.) His primary goal was to get a GED. He mentioned that all his siblings finished school and he feels bad about dropping out.*

***David** finished the 11th grade and at the time of enrollment was working part-time stocking shelves and cleaning up at a grocery store. He said he didn't have a reading problem as a child. (Liz wondered about that, given his very low scores. She resolved to learn more about David, as the interview notes were skimpy, and his reading goal seemed uncertain.)*

***Emily** only finished the 9th grade, was working very limited part-time hours at a convenience store at the time of enrollment, and said her goal was to earn a GED. She said she was separated from her husband and was receiving public aid of some kind. (Liz noted that her scores were among the highest in the group and thought she might ask her about vocational goals after the GED. If she wanted to pursue a career interest it would give Liz ideas for choosing reading materials.)*

***John** mentioned having a reading problem as a child, but he didn't get any special help. He says he just "kept plugging away" (his words in the teacher's notes) until he finally gave up after finishing the 10th grade. The notes indicated a health problem but didn't have much other information. (Liz decided she needed to learn more about this student, too.)*

***Andres** is a native of Mexico whose first language was Spanish. He is a long-time resident of the U.S. and said he felt comfortable with conversational English and didn't need an ESL class. He finished the 10th grade and mentioned that he did have a reading problem as a child. At the time of enrollment last year, he was working in construction and getting as much overtime as he could to support his two children and their mother. He was very clear about improving his skills to get a better job and was willing to consider taking the GED tests if he was convinced it would help with his career goal.*

Tonya *said she wasn't sure about a reading problem but she did have a learning disability and did have special help in school. She said she finished the 12th grade. (Liz wondered if she got a Special Education diploma.) Her goal at last year's interview was to improve her reading to get into the practical nursing program at the vocational-technical college. (Looking at her scores, Liz made a note to help Tonya identify a couple of short-term goals so she wouldn't get discouraged.)*

Catalina *is a native of Mexico and started school there. Her family moved to the U.S. when she was 10 years old. She described her spoken English as "good." She did have trouble with reading in school but didn't remember receiving any special help. She completed the 10th grade. At the time of enrollment last year she was doing housecleaning and baby-sitting, but wanted to get "a real job." Her other goal was to read to her preschool-age daughter and help with homework when she is older. She apparently remembers that her parents couldn't give her much help because they didn't speak English well.*

After analyzing the test data and perusing the files, Liz knew she had a real opportunity to work intensively on reading with this group. Because some of the learners were getting the XYZ program instruction, she felt she would have time to work more closely with each learner to individualize instruction. She planned for everyone to spend plenty of time reading and discussing their reading, but each student also had individual needs she wanted to be sure to address. So the first thing she did was to make notes about their relative strengths and weaknesses and *tentative* decisions about primary focus areas and materials for each learner.

She considered the plans tentative because she understood that tests are just one source of information—a sample of performance at a point in time. She knew she would continue to learn about the students as she worked with them and might need to revise her plans.

Primary focus areas based on initial assessment

Lisa

- XYZ program (for decoding)
- Fluency practice
- Comprehension: reading and discussion of controlled vocabulary texts or simple stories

Since her oral vocabulary is strong, she might be able to work with Emily and Andres once in a while, to learn new words. Then she could work on decoding and spelling the words. She could also take the reading materials home and re-read these simple texts for extra practice to build fluency.

Amy

- Comprehension strategies
- Fluency: paired or tape-assisted reading to build speed (This should help with comprehension.)
- Silent reading on topics of choice to build vocabulary and background knowledge

One possibility is material on how children learn to read. There's a lot of material for parents.

Monte

- Decoding with word-study workbooks (Phonemic awareness is strong, so he might make good progress. He probably will need direction, help, and feedback, but the workbooks should provide structure and sequence.)
- Fluency: echo reading or paired reading for speed (Decoding work will improve speed, too.)
- Comprehension: Pre-GED workbooks and small-group work on strategies

To speed up the GED preparation maybe he could get extra study time at home or at the vocational rehab office using a computer assisted instructional program.

David

- XYZ program (decoding)
- Fluency: echo reading or paired reading of simple texts
- Comprehension: reading and discussion of controlled-vocabulary texts or simple stories
- Vocabulary: words in categories (feelings, work, money/finance), words in the news, make word cards and sort by category

I need to get more information on his goals and interests. Since his reading is very weak, he won't be able to read anything interesting independently, but maybe I could find a volunteer to read to him. Then they could talk about it, or, if others also read the material, he could take part in small-group discussions.

Emily

- Decoding: word-study workbooks (Independent study will probably not be enough, but the books could provide structure for some pairs or small-group work with assistance.)
- Fluency: echo or paired reading to build speed (Improved decoding skills will support fluency and improve comprehension.)
- Comprehension strategies: small-group work

Because she needs a full-time job, she might be interested in information on vocational options. Maybe we could search the internet for some simply written materials on jobs. Since her reading comprehension and vocabulary are fairly strong, she might be able to read this material at home and mark the text where she has questions or if she finds a job she wants to learn more about.

John

- XYZ program (decoding)
- Fluency: echo reading or paired reading of simple texts
- Comprehension: reading and discussion of controlled-vocabulary texts or simple stories
- Vocabulary: words in categories (feelings, work, money/finance), words in the news, make word cards and sort by category

I'll have to spend some time with him to find out about specific goals and interests. Motivation material might be especially important for him since reading is a real struggle.

Andres

- Fluency: paired or tape-assisted reading
- Vocabulary: workbooks, including work-focused vocabulary in chosen vocational areas; word-learning strategies (context clues and the dictionary)
- Comprehension strategies: small-group work and silent reading on topics of interest (building speed and vocabulary will improve comprehension.)

Maybe he could work with Emily on researching vocational options.

Tonya

- XYZ program (decoding)
- Fluency: echo reading or paired reading of simple texts
- Comprehension: reading and discussion of controlled-vocabulary texts or simple stories
- Vocabulary: words in categories (feelings, work, money/finance), focus on science/healthcare, make word cards and sort by category

If we can get one of the books from the vocational college practical nursing program, maybe a volunteer could make an audiotape, so Tonya could read along while listening and get extra practice at home.

Catalina

- Decoding with word-study workbooks (Her comprehension score is as low as the people in the XYZ program, but her phonemic awareness is strong, so she might

make fairly speedy progress with some help. If not we can change the plan.)

- Fluency: Echo reading or paired reading for speed (decoding work will improve speed and comprehension.)
- Comprehension: reading and discussion of controlled-vocabulary texts or simple stories
- Vocabulary: words in categories (feelings, work, money/finance), focus on vocational interest area, make word cards and sort by category

Children's books might make good reading material for her, given her goals. She could read them to her daughter at home.

After completing these individual analyses, Liz made the following plan for the first few weeks of class.

Liz's To-Do List

- Meet with each learner to get acquainted and to update goals and learning plans.
- Find time to listen to each learner read aloud. (Because the fluency test was administered by someone else, Liz decided she would like to hear each of them read at least a short passage aloud. She thought she might schedule this reading separately, but it also could be done less formally as part of a fluency activity in class.)
- Survey the group about interests and do some brainstorming about topics they would like to read and learn about. (Liz figured this would help her to plan some whole-group activities and maybe suggest an idea for a class project. She knew this group had excellent attendance in the previous year and thought a long-term project might work well. It would give them interesting opportunities to apply their reading skills. Of course, she would have to be sure there were ways for the lowest readers to contribute to and learn from the experience.)
- Plan for small-group instruction. She made the following tentative group decisions.

Fluency (groups based on similar fluency and decoding skills):

– Monte, David, Tonya, and Catalina

– Lisa, Emily and John

(Andres and Amy could join a group or work independently with a tape.)

Comprehension (groups based on similar comprehension and fluency/speed):

– Emily and Amy

– Tonya, Catalina, and David

– Andres and Monte

– Lisa and John

Homogeneous grouping in a multi-level class: Getting started

The illustration above points out some of the issues you will need to address and suggests tools and strategies for approaching the task of teaching in the multi-level classroom. You might find the tools and techniques used by our fictional teacher helpful.

- Make a chart or graph showing learners' assessment scores.
- Look for patterns in this data. Are there weaknesses or strengths common to all students or to sub-groups?
- Look at each component and make a tentative plan for pairing or grouping individuals based on common needs and strengths. Try working with these groups, and make adjustments if necessary.
- As you make these plans for groups, remember that the component skills do not operate separately. Decoding skills affect fluency, which in turn affects comprehension. Consider skills across these related components as you plan.

  – If people are to work in a group on comprehension activities, similar comprehension skills are obviously important, but differences in reading speed can make it hard for individuals to work together, so fluency should perhaps also be considered in grouping decisions.

  – And of course, there's more than one aspect to fluency. In working on accuracy, similar decoding skills may be more important than similar reading speeds.

Obviously, this kind of teaching requires careful analysis, and there are probably as many ways to do it well as there are teachers and learner groups. Your knowledge of reading instruction and your understanding of the learners in your class—their reading strengths and needs, their relationships with each other, their expectations about learning, and their "comfort" with different types of interaction—will guide you in finding creative ways to manage multi-level reading instruction in your ABE or family literacy adult classroom.

Reading instruction in a multi-level group: Structural support

- Instructional aides may allow you to provide more individualized instruction. If you don't have an aide, see if it's possible to get one—or consider using volunteers. Volunteers and aides require training and supervision, but extra help is vital if your class includes beginning or non-readers, special-needs learners, or English language learners who need individual attention.
- To work effectively with adult beginning readers, you will need a structured, explicit curriculum, but you don't need to reinvent the wheel. Research the existing programs to find a way to provide this kind of instruction. Look for programs that are scientifically based.
- If you are part of a large adult education program, perhaps the program could experiment with reorganizing so that classes or sites could specialize in different levels or types of instruction.

Where Do We Go from Here?

If you haven't been doing much direct reading instruction, you will need to develop your skills gradually. You won't become an expert overnight, and it may also take time to get the learners used to a change in expectations and routines. Think about what you've learned and what it will take to provide effective instruction and plan a step-by-step process.

What it takes: A review of the basics

- Teach reading! Schedule the time and make plans.
- Assess the components and develop individual and class profiles.
- Make individual and group-based plans based on assessed needs and strengths.
- Use instructional strategies based on scientific research.

Teaching reading in the adult classroom: One step at a time

Get familiar with the component assessments in use in your program:

- Consult the administrator's manuals so you know exactly what is being measured and how.
- Examine the tests so you understand the tasks learners are asked to perform.
- Be sure you are clear about the relationship between the tasks and the reading component skills being measured and which aspects of each skill are tapped by your assessments. You want the tests to be useful for planning, so you don't want to misunderstand a test score or infer too much.

Make a plan:

- Review research-based strategies for each of the reading components.
- Create a profile of your class.
- Analyze the group: Where are common needs and strengths?
- Analyze individual assessment results, and create individual learning plans.
- Based on this analysis, choose one or two components that represent common needs, and one or two strategies or activities you read about in this book and see how they work with your class.

Give it a try:

- Prepare the learners by explaining your purpose and process.
- Address individual needs in a multi-level group with flexible, homogeneous grouping.
- Observe the learners' responses to each activity carefully, and be ready to step in with cues or other guidance as necessary.
- Don't expect instant results. Make adjustments if you run into a snag: choose a shorter passage; try pairs instead of groups; provide more demonstration and modeling; allow more time, etc.
- When you feel confident with these activities, plan a logical sequence of next steps and try one or two more, proceeding carefully and thoughtfully, as above.

Next steps?

Keep on learning!

Take every opportunity to learn more about scientifically based reading instruction.

Glossary

ABE—*ABE* stands for Adult Basic Education and refers to the federally funded programs offered in every locality in the nation. They provide instruction in reading and other basic skills. ABE programs are sometimes distinguished from ASE (Adult Secondary Education) programs, which provide higher-level skills instruction in preparation for the GED tests or an alternative high school diploma.

ABE Target Population—The *ABE target population* is adults, aged 16 and older, who have not completed high school or who need to improve their basic skills.

Affix—An *affix* is a word part attached to the beginning or end of a "root word." It is a general term that includes both prefixes (**pre**, **un**, **dis**, etc.) and suffixes (**ful**, **less**, **ly**, etc.). An affix may change the meaning (**happy**, **unhappy**) or function of a word. For example, **ly** changes an adjective to an adverb, as in "The happy child played happily."

Alphabetics—*Alphabetics* refers to the skills related to using letters to represent the sounds of language (the sound-symbol relationship). Alphabetics skills include both phonemic awareness and decoding.

Antonym—An *antonym* is a word that is opposite in meaning to another word. An antonym for **dark** is **light**.

Assessment—*Assessment* in education is the process of collecting and analyzing data to make educational decisions. Assessment is a general term that refers to tests and other measures, like oral reading performances, collections of writings and other work products, teacher observations, and self-evaluations.

CASAS—*Comprehensive Adult Student Assessment System*

Computer-assisted instruction (CAI)—The term *computer-assisted instruction* refers to computer-based learning programs that present content sequentially, request responses from the learner, and provide immediate feedback for each response. CAI programs usually include tests and keep records of each individual's progress.

Consonant blends—A *consonant blend* is a cluster of two or three consonants at the beginning or end of a word or syllable. All the letter-sounds are pronounced, but are blended quickly together. The word **brisk** has two consonant blends: **br** and **sk**.

Consonant digraphs—A *consonant digraph* is a combination of consonants that represent one sound (**sh**, **th**, **ch**, **ph**).

Context clues—*Context clues* are sources of information from the surrounding text that indicate the meaning and/or pronunciation of a word. A reader may find clues in the sentence in which the word occurs, especially when restatements, definitions, or examples are provided. Clues also may be found elsewhere in the text or pictures.

Continuant sound—A *continuant sound* is produced as an "uninterrupted air flow" (Harris & Hodges, 1995, p. 44). A speaker can continue the sound, allowing for smooth blending with the next sound in a word. Examples of continuant sounds are /s/, /m/, /f/, and all the vowel sounds. See **stop sound**.

Decoding—In its broadest sense, *decoding* is what readers do to identify words in order to translate written language to oral language. Decoding may include using letter-sound and syllable-sound correspondences, common spelling patterns, and sight-word memory. See **phonological decoding**.

Diphthong—A *diphthong* is a vowel sound that begins with one vowel and slides into another. Examples are the sounds often represented by **ou** and **ow**, or **oi** and **oy**.

Dysfluent—The word *dysfluent* describes speaking or reading that is repetitious, hesitant, "choppy," or in any way not fluent.

Dyslexia—*Dyslexia* is a type of learning disability. It is a specific language-based disorder characterized by problems in learning to read, write, and spell, and specifically, difficulty with single-word decoding. A person with dyslexia has reading skills significantly below what might be expected of the individual based on cognitive ability and educational experiences. See **learning disability** and **reading disability**.

Elision—The word *elision*, when used in the context of reading, usually refers to the omission of a sound or syllable in a word. Phoneme deletion tasks are examples of elision (e.g., "say **stack** without the /s/").

ESL—*ESL* stands for English as a Second Language. The term may refer to the program—which provides instruction for immigrants in speaking, understanding, reading, and writing English—or the learners (as in ESL adults). These students are also called English language learners (ELLs). See **ESOL**.

ESOL—*ESOL* is often used interchangeably with the term *ESL*. *ESOL* stands for English for Speakers of Other Languages. The distinction is sometimes made that this term may be more accurate because its use does not assume that English is only the second language a learner is acquiring. ESOL is more often used to refer to adults or programs for adults (rather than children). These adults are also called English language learners (ELLs). See **ESL**.

Experimental research—*Experimental research* is one of several research methods. Although other kinds of research produce valuable knowledge, this is the only kind that allows researchers to test educational methods and materials for effectiveness. It is often described as being at the top of the hierarchy of scientific research evidence, because an experiment is the only process that allows a researcher to say with confidence that A caused B (where A represents the instructional method or "intervention" being tested and B represents the observed change). The researcher randomly assigns students to either the treatment group that receives the instruction being tested or the control group that does not. Random assignment is vital to the experiment because it helps to rule out other factors, not related to the educational intervention, that might cause the change.

Explicit instruction—In *explicit instruction*, the teacher presents content clearly and directly, providing step-by-step directions and modeling, followed by guided practice with feedback, independent practice, and frequent reviews. Similar structured approaches may be called direct instruction, active teaching, or expository teaching.

Expository text—*Expository text* presents and explains facts and information about a topic. It is distinguished from narrative text, which tells a story or relates a series of events.

Expressive vocabulary—*Expressive vocabulary* refers to the words a person understands and uses in speaking and writing. It is contrasted with receptive vocabulary, which refers to the words understood when reading or listening to speech. See **vocabulary** and **receptive vocabulary**.

Figurative language—*Figurative language* is the non-literal use of words, as in the use of images to make comparisons. Examples are found in phrases like "perky as a puppy," "eyes like two burning coals," and "a stony silence."

Fluency—*Fluency* is used to describe speech and reading. Reading fluency refers to speed, ease, accuracy, and expression. A fluent reader is skilled at identifying words and reads with appropriate phrasing and intonation.

GE—This is an abbreviation for *grade equivalent* and is often used in the phrase "grade-equivalent scores" to describe a type of test score that compares individuals' performance with the typical scores of students at specific grade levels.

GED — The tests of *General Educational Development* are known as the GED test(s). The GED (high-school equivalency) certificate is awarded to those who pass the tests.

Graphic organizer—A *graphic organizer* is a diagram or chart that visually represents the relationships among ideas and information in a text. Some kinds of graphic organizers are called maps or webs.

Inference—An *inference*, in the context of reading, is a conclusion drawn from evidence in a text that leads to knowledge or understanding that is not directly stated in print. In making inferences a reader understands what is not explicitly stated by filling in information from his background knowledge. This process is often called "reading between the lines."

Intensive instruction—The defining factors in *intensive instruction* are student engagement and time. In intensive instruction students are paying attention and actively engaged in a learning task—listening, thinking, responding, creating, or otherwise working—and doing so frequently for significant amounts of time.

Intervention—An educational *intervention* is a general term that may refer to a practice, strategy, curriculum, or program. This term is usually used when describing research.

Learning disability—"A *learning disability* is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the life span" (National Joint Committee on Learning Disabilities, as cited in National Adult Literacy and Learning Disabilities Center, 1999, Guidebook 1, p.12).

Linguistic—*Linguistic* is an adjective meaning "related to language."

Miscue—A *miscue* is a reading error, a deviation from the text during oral reading. Analyzing miscues and identifying patterns of errors may help a teacher understand the nature or origin of a reading problem.

Modeling—*Modeling* in teaching is showing students how to accomplish a task or use a strategy by demonstrating it explicitly. Teachers are often encouraged to model even their thinking processes, as they show students what to do and how to do it.

Onset—The *onset* is the part of a word or syllable that precedes the vowel: **b**-ook, **st**-ack, **pl**-ay**m**-ate. See also **rime**.

Percentile rank score—A *percentile rank score* shows the percentage of people in a test's norming group who scored at or below a particular raw score. So if a student is at the 75th percentile, we infer that 75% of people who took the test had the same or a lower score, and only 25% scored higher.

Phoneme—A *phoneme* is the smallest unit of sound that changes the meaning of spoken words. The word *sit* has three phonemes, /s/ /i/ /t/. Substituting /f/ for the first phoneme changes the word to *fit*.

Phonemic awareness—*Phonemic awareness* is the ability to detect and manipulate phonemes in words. Phonemic awareness is important because it is required for development of accurate decoding skills. See **phonological awareness**.

Phonics—*Phonics* is an instructional method for teaching word identification that stresses letter-sound relationships: teaching the sounds that letters and groups of letters represent and how to blend the sounds to identify words.

Phonological awareness—*Phonological awareness* is a broad category that includes phonemic awareness. Phonological awareness is the perception of speech sounds as distinct from their meanings. It includes the ability to detect rhymes, syllables within words, and (at its most refined level) individual sounds within syllables and words (phonemic awareness).

Phonological decoding—*Phonological decoding* refers to what readers do when they use letter-sound and syllable-sound correspondences to identify words. Phonics instruction builds phonological decoding skills.

Prefix—A *prefix* is a word part (affix) attached to the beginning of a word. Common prefixes include **pre**, **un**, **dis**, **anti**, **non**, and **re**. See **affix** and **suffix**.

Professional wisdom—In this book, *professional wisdom* refers to the judgment teachers acquire from experience. This practical knowledge allows teachers to apply and adapt research-based facts and principles to their unique instructional settings and circumstances.

Pseudo-word—A *pseudo-word* is a pronounceable string of letters that has no meaning. Pseudo-words are often used to assess decoding skills, because correct pronunciation can only be based on phonological decoding. Sight word memory and meaning clues do not apply to this task. Pseudo-words may also be called invented words and nonsense words.

Rapid naming—*Rapid naming* of numbers, colors, objects, or letters is a measure of processing speed. It is a common assessment task because rapid naming is correlated with reading ability.

Readability—*Readability* refers to the difficulty level of written material. Several factors contribute to ease or difficulty of comprehension, including concept density, vocabulary, and sentence length/complexity. See **readability formula**.

Readability formula—A *readability formula* is used to estimate the readability (difficulty level) of written material. Typical formulas are based on the length of sentences and the number of long or unfamiliar words. See **readability**.

Reading disability—A *reading disability* is a type of learning disability. Reading disability may be suspected when a person's reading achievement is significantly below what might be expected based on cognitive ability and educational experiences. See **learning disability** and **dyslexia**.

Receptive vocabulary—*Receptive vocabulary* refers to the words a person understands upon hearing them in speech or when reading. It is distinguished from expressive vocabulary, which refers to those words understood and used by an individual in speaking and writing. See **vocabulary** and **expressive vocabulary**.

Reliability—*Reliability*, as used in the context of assessment, refers to the consistency of results/scores. A test or assessment process should produce consistent results over time (if no instruction is provided) and when administered or scored by different people. Different (alternate) forms of the test should also produce similar results. Reliability for published tests is evaluated using statistical methods and expressed as a correlation coefficient, a number between 0 and 1.0. See **validity**.

Rime—A *rime* is the part of a word or syllable that includes the vowel and any consonant sounds that come after it (b-**ook**, st-**ack**, pl-**ay**m-**ate**). Rimes are also called phonograms or word patterns. See **onset**.

Roots, Root words—A *root word* is the basic part of a complex word. The root or base carries the core of the meaning. Affixes are added to roots to alter the meaning or function of the word. The word **disappearance** is based on the root word **appear**. The prefix **dis** changes the meaning, and the suffix **ance** changes the word from a verb to a noun. *Root* is also used to refer to the historical origin of a word or syllable. For instance, **aerospace** includes the Greek root, **aero**, meaning **air**.

Rubric—A *rubric* is a scoring guide used in performance assessment. It includes well-defined criteria describing the characteristics of student performance at each of several points on a numerical scale. For example, a four-point scale for evaluating student writing would describe the qualities and types of errors found in typical examples of writing at each of the four rubric points.

Scaffolded instruction—*Scaffolded instruction* is a broad term that may refer to various methods of supporting learners as they learn and gradually withdrawing supports as they become capable of independent performance of a task or skill. Supports may include clues, clarifying questions, reminders, encouragement, or breaking the problem down into steps.

Sight words—Words recognized very quickly (automatically) without conscious decoding are called *sight words*. A reader may have originally identified these words by "sounding them out," but after many exposures, they are stored in memory and recognized immediately. The term *sight words* should not be understood to imply that words are recognized as wholes. Instead, research suggests readers process all the letters in a word even when reading very rapidly.

Signal words—*Signal words* are those words and phrases that give clues to the organization of material, identify what's important, and show the relationships among ideas and information (**first**, **second**, **finally**, **although**, **in contrast**, **however**, **therefore**, for example).

Stop sound—A *stop sound* is one in which the speaker's air flow stops to complete the production of the sound. The English stop sounds are /p/, /b/, /t/, /d/, /k/, and /g/ (Harris & Hodges, 1995, p. 243). Stop sounds are of interest in reading instruction because they create problems in decoding. Stop sounds are harder to blend than continuant sounds, like /s/ and /m/. For example, to "sound out" a word, a reader produces the sound /b/ in isolation, resulting in something like "buh." In contrast, the /s/ sound can be continued and slid into the next sound without adding the "uh" sound. See **continuant sound**.

Strategy instruction—*Strategy instruction* teaches learning tools. The focus is on teaching learners *how to learn* effectively, by applying principles, rules, or multi-step processes to solve problems or accomplish learning tasks.

Structural analysis—*Structural analysis* is a strategy for identifying and defining words that involves attention to word parts, including, prefixes, suffixes, and root words.

Suffix—A *suffix* is an affix (word part) attached to the end of a "root word." A suffix may change the meaning or function of a word. Suffixes include the plural endings (**s** and **es**), verb endings (**s**, **ed**, **ing**), as well as **ly**, **ful**, **less**, **ish**, **ent**, and many others. See **affix**, **prefix**, and **root**.

Syllable—A *syllable* is a word or word part that contains a vowel sound. Some words have only one syllable: **ad**, **be**, **ill**. Others have two or more: **syl-la-ble**; **se-quence**, **lit-er-al**, **im-ple-men-ta-tion**.

Synonym—A *synonym* is a word with the same meaning as another word. **Glad** is a synonym for **happy**.

TABE—*Test of Adult Basic Education*

Validate—To *validate* a test is to assess the validity of its scores related to specific interpretations and uses of the scores. See **validity**.

Validity—*Validity* refers to the interpretation and use of test scores, that is, the likelihood that appropriate inferences about characteristics or abilities may be made based on the scores and appropriate decisions made. If a test score accurately represents the abilities it is intended to measure, teachers can feel confident about decisions based on the score. Validity of a score may vary depending on the way in which it is used and the types of individuals being tested. Formal, published instruments have usually been subjected to various statistical tests and assigned a validity coefficient, a number from 0 to 1.0. See **validate** and **reliability**.

Vocabulary—*Vocabulary* refers to the words understood or used by a person. Our *oral vocabulary* is the words we can understand and use in speaking and listening. Our *reading vocabulary* is the store of words we can read and understand. See **receptive vocabulary** and **expressive vocabulary**.

Word analysis—*Word analysis* may be used broadly, to refer to all word identification skills, including decoding and sight word recognition. *Word analysis, word identification,* and *word recognition* are often used interchangeably. (Some prefer to reserve the term *word analysis* for the actual analysis involved in phonological decoding.) See **word identification**, **word recognition**, **decoding**, **phonological decoding**.

Word identification, Word recognition—*Word identification* and *word recognition* refer to the processes used to determine pronunciation/meaning of a word: both conscious decoding and automatic (sight word) recognition.

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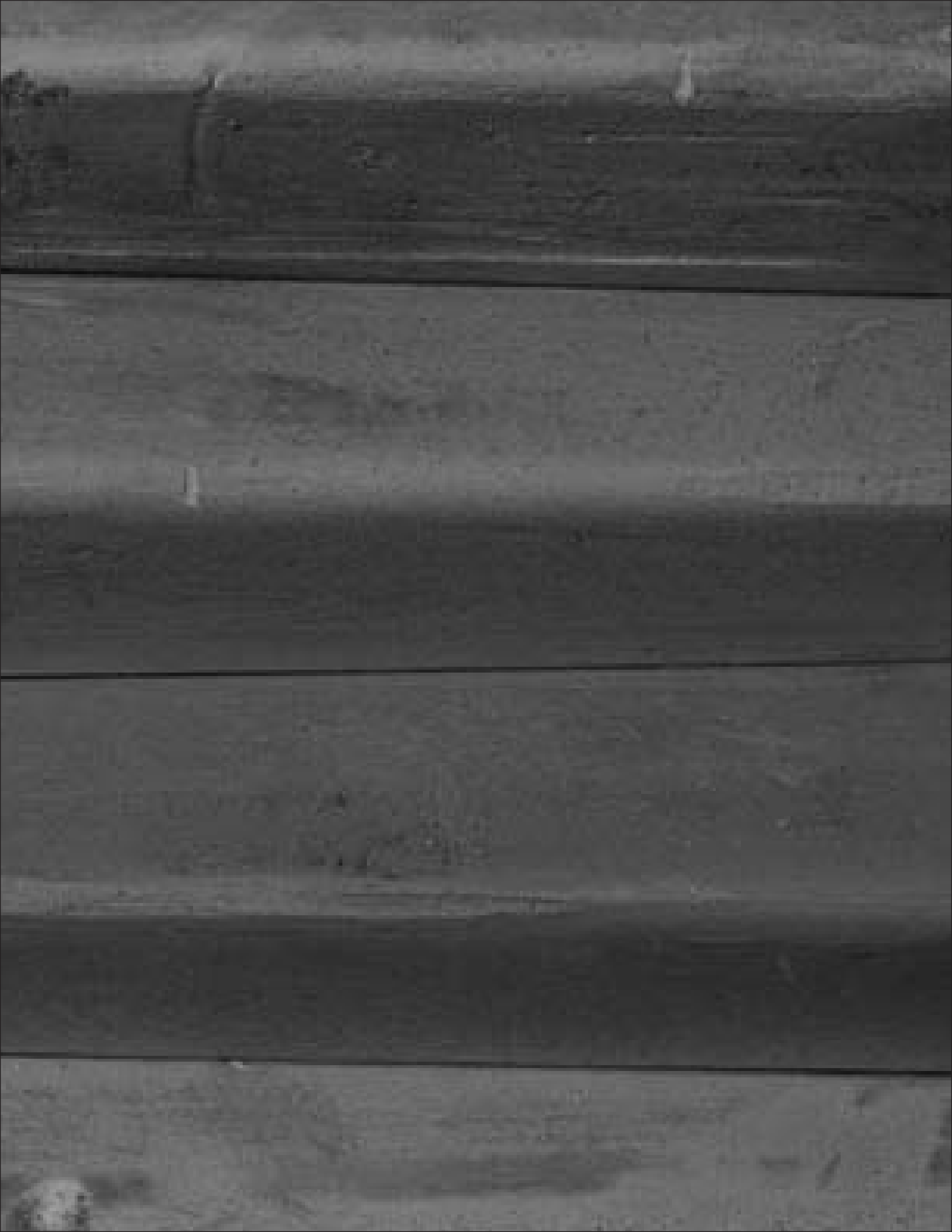

Appendices

Appendix A
Educational Research Design: Testing for Effectiveness

This appendix is included to provide more depth on the subject of research design than we provided in the main text, but it is not a comprehensive discussion of this subject. We have avoided the technical details whenever possible. Our goal is to explain the underlying concepts so that you can be a more informed consumer of educational research. If you understand the thinking behind the process of proving effectiveness, you will know what kind of questions to ask when you are confronted with a teaching method or product that purports to be research based.

Introduction

When an educational researcher wants to test the effectiveness of a particular instructional method, approach, or product, he or she must find out whether students who receive this new "treatment" (also often called an intervention) learn more than those who don't. This kind of study, then, requires two groups of students: those who are taught using the new method and those who are taught using the current methods. The researcher can compare pre- and posttest scores of the students in each group to see if one group made greater gains than the other.

However, even if the treatment group (let's call them Group A) did better on the posttest or showed greater gains than the other group (Group B), we still can't be sure the difference in learning was caused by the treatment. Maybe Group A had better skills at the beginning. Maybe they were more motivated. Maybe Group B included more students with special learning needs. Maybe some of the Group A students had extra tutoring or other advantages. Any of these factors (variables) could have affected the learning gain.

In order to isolate the learning that may be attributed to the new instructional approach, the researcher must "control" for these and other variables that may also influence the learning outcome. It's fairly easy to control some of the factors. For example, a researcher can make sure that the same amount of time is spent on instruction for both groups. But what about the student characteristics? How can the researcher control those variables?

Remember that the goal is to ensure that Group A and Group B are very similar, so that the only important difference is the treatment—the instructional approach, method,

or product. So she tries to "match" the groups on relevant characteristics. If the groups are similar and the researcher is changing only one thing that happens in the classrooms (the treatment), it is logical to assume that if the groups have different outcomes, it's the treatment that caused that difference.

The key is to work with groups that are very similar, and there are two ways to approach this goal.

Experimental Research

In a true experiment, the researcher assigns students to the two groups using a random procedure. For example, he or she might "draw names from a hat" or choose every other name on the enrollment list. A random method gives every person an equal chance to be assigned to either group and makes it likely that any differences in the groups will "balance each other out." This approach prevents a researcher's unintended biases from influencing the composition of groups.

It does not, unfortunately, *ensure* that groups are closely matched, and researchers may use other methods (too technical for this book) to address these concerns. One way to get around some of these difficulties is to work with large numbers. When the number of participants (the *n*) is large, the odds are better that group differences will be balanced out by the random assignment procedure.

Large numbers, then, lend credibility to a study. If the number of students being considered for participation is large enough and assignment is left to chance, these conditions increase the probability that Groups A and B will not be markedly different on relevant characteristics (skills, native language, prior education, etc.).

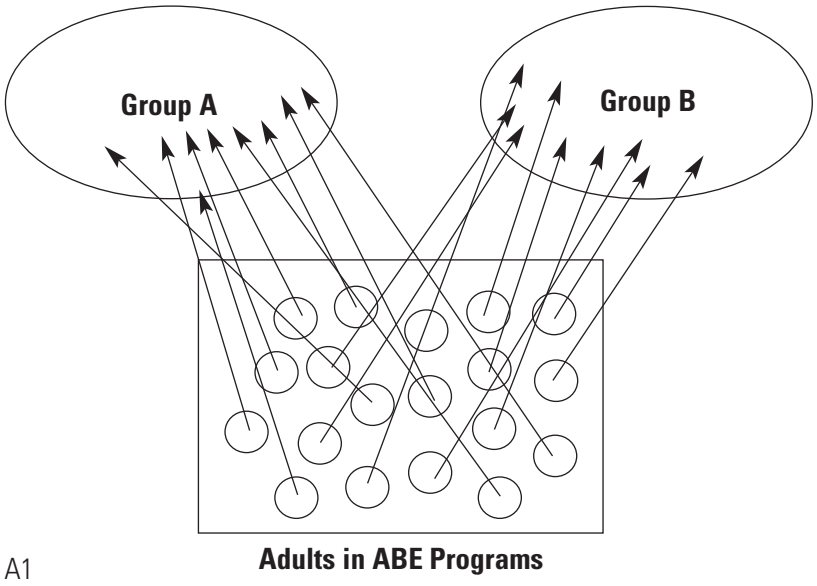

Figure A1

In education, this kind of research is often difficult because researchers can't assign individual students to different groups when they are already assigned to classes. For this

reason, educational researchers often have to work with existing groups, usually in the form of classes. When researchers work with existing groups and random assignment of individuals is impossible, they are doing quasi-experimental research.

Quasi-Experimental Research

Following are two approaches to quasi-experimental design.

Random assignment of groups. In one approach to this type of design, the researcher randomly assigns groups (instead of individuals) to receive—or not receive—the treatment. So for instance, if several Adult Basic Education (ABE) programs are participating in a study testing a new reading comprehension strategy, half of the classes would be randomly assigned to the treatment Group A, and half would be in Group B.

Pre-test score equivalency. Random assignment of groups isn't always possible or practical, however. Another approach to the quasi-experimental design involves working with existing groups and administering a pre-test to the students in each class in order to establish equivalency on reading skills.

Matching. Of course, the groups still may differ in important ways, so the researcher must check on a number of other characteristics. For example, he or she will check to see if the ages of the two groups are similar and if both groups have approximately the same percentage of adults whose first language isn't English.

In addition, when working with groups, classroom characteristics are important. Adult education classroom schedules and instructional formats may differ in significant ways, making comparisons between classes problematic. For instance, one class might meet on Monday and Wednesday, while another meets four days a week. One class might have average attendance of only 50%, while another that is offered on the worksite or provides child care might have attendance closer to 90%. These variations in program settings result in large differences in the amount of instruction learners receive, and "time on task" is obviously an important variable.

You can see that both the characteristics of the learners and the characteristics of the instructional setting are important. A researcher should consider both types of variables when assembling groups to participate in a study. One approach is to first define the individual and classroom criteria for inclusion, exclusion, and matching, and then select the classes that are roughly similar for participation in the study. This approach is not as good as individual random assignment but does address many of the practical restraints of applied research.

In the example detailed in Table A-2 students in eight classrooms comprised the population initially being considered for the study. After applying the exclusion criteria, Classroom #3 was excluded because most of the students were recent immigrants. Their English language skills were much weaker than the students in the other classes, so the researcher decided this group was too different to be fairly compared with the others in a study of English reading-strategy instruction. In the table, selected characteristics of the remaining seven classes are compared. As you can see, the two groups, although not identical, are similar.

*Participating Classes**

Student & Class Characteristics	Group A— Classes: #4, #6, #8	Group B— Classes #1, #2, #5, #7
Instruction	**Treatment Group:** Instruction in new comprehension strategy	**Comparison Group:** Reading instruction as usual
Population	Adults enrolled in ABE; voluntary participants; 32% Hispanic/Latino (including 25% recent immigrants); 30% African American; 10% other non-native speakers of English; 28% White native speakers of English	Adults enrolled in ABE; voluntary participants; 30% Hispanic/Latino (including 22% recent immigrants); 34% African American; 12% other non-native speakers of English; 24% White native speakers of English
Age: range & average	18-42; average 23	20-39; average 26
Years of school completed: range & average	4-11; average 8.5	5-11; average 9.5
Reading comprehension pre-test score (grade equivalent)	3.5–10.9 GE; average 6.2 GE	4.2-11.2 GE; average 6.7 GE
Class instructional hours	6 hours weekly (3 days x 2 hours)	6 hours weekly (2 days x 3 hours)
Average daily learner attendance	72%	67%

*After applying the researcher's exclusion criteria, Classroom 3 was excluded from consideration for participation in the study because most of the students were recent immigrants.

Table A-2

When individual and classroom variables are "controlled" in this way, the researcher may draw tentative conclusions about the effectiveness of the method or approach being tested. Because the groups are similar in these important ways, if Group A shows significantly greater learning gains, the results will point to the instructional treatment as the cause of the difference. Again, a larger number of classrooms would lend even greater support to these conclusions.

Replicated Research

Of course, no single study provides conclusive evidence of effectiveness. Other researchers may try out the intervention with different learner groups or in different program settings to see whether, or to what extent, the findings may be generalized. When several studies report similar findings, the research has been replicated, and results may be accepted with greater confidence.

Appendix B:
The Content of Phonics Instruction

This outline is based on the phonics content described in the sources listed below.

Consonant and short vowel sounds

- Consonants: The sounds for all the consonants are introduced (a few at a time) because they are fairly consistent in the sounds they represent, and this knowledge is immediately useful. The two sounds for **c** and **g** are taught, but are not generally introduced at the same time. So, for example, /k/ as in **cat** and /s/ as in **city** are not taught together.

  The continuant sounds, like /s/, /m/, and /f/, may be among the first consonant sounds taught because you can hold onto the sounds and "slide" into the vowel (Gunning, 2001). That makes it easier to blend sounds to form a word. Stop sounds, like /p/, /d/, and /k/ can't be continued in that way, so the speaker has to add a vowel sound. The sound of the letter **d** ends up as "duh" and that added vowel sound makes it harder to recognize the word.

  A common practice is to teach a key word for each sound as a memory aid. A good key word begins with the target letter sound (not a consonant blend like br or sp, just the consonant followed by a vowel) and is a concrete term familiar to the learners: **bus**, **cat**, **dollar**, **fish**, **gift**, etc.
- Consonant digraphs: Consonant digraphs are two letters that stand for one sound: **ch**, **sh**, **th**, **wh**, and **ph**. Key words may be used for these sounds, too.
- Short vowels: The vowel sounds are introduced in the same way. The short vowels are sometimes taught first because there are more different spelling patterns for the long vowel sounds.

  Typically, students learn a few consonant sounds and at least one or two vowel sounds right away, so they can decode words immediately.

Sight words

The most frequently encountered words are taught as sight words (**the**, **in**, **of**, etc.). (You can find a list of these words in *The Reading Teacher's Book of Lists*, Fry *et al.*, 2000.) Knowing these high-utility words allows beginners to read simple materials independently and allows teachers and learners to compose sentences so they can practice decoding words in a context.

Onsets and rimes

Many programs introduce onsets and rimes (also called word patterns and phonograms) early in the sequence, after one or two vowels and several consonants have been learned. This is a good approach for dealing with the vowel sounds because learners may have a hard time detecting a vowel sound in the middle of a word. They may find it easier to recognize a larger word part, like **ap**, or **ot**. So, for instance, after working with short a, they might learn the rimes **ad**, **an**, or **ack** and read words with different onsets, like **bad**, **had**, **mad**, and **dad**. (Of course, they can only decode words with letter sounds they already know, so this example works only if they know the sounds for **b**, **h**, **m**, and **d**.)

Long vowel sounds

The long vowel sounds may be first introduced with spellings that exemplify the silent e rule, because this rule is fairly consistently applicable. (Examples: **take**, **dime**, **fine**, **hope**) Onsets and rimes are also useful in working with the long vowels. (Examples: **ay**, **ail**, **eed**, **ight**)

Consonant blends

The consonant blends or clusters (**br**, **cr**, **dr**, **bl**, **pl**, **sn**, **st**, **scr**, etc.) are usually taught directly. Learners may attach these new onsets to the rimes they've already learned to create many new words.

Other vowel sounds

The other common vowel combinations are usually introduced after the long and short sounds.

Examples:

- **oi** / **oy**, **au** / **aw**, **ou** / **ow**, **oo** (as in **zoo**), **oo** (as in **book**)
- **ə** (the schwa sound represented by the **a** in **ago** or the **i** in **pencil**)
- The **r**-controlled vowels (as in **her**, **bird**, **card**, **north**, and **burn**)

Structural analysis

Analyzing words by recognizing larger word parts is often included in phonics instruction. Simple examples are below.

- Plurals: —**s**, —**es**
- Verb endings: —**s**, —**ing**, —**ed**
- Common prefixes: **re**, **un**, **anti**, **ex**, **non**, **pre**, **post**

Beginners need a structured, carefully sequenced curriculum designed to develop decoding skills, so your program will need to learn about existing, proven programs. Examples of programs that have been used with adult learners are in Appendix B.

For more detail on content, consult the following sources:

Fry, E.B.; Kress, J.E.; & Fountoukidis, D.L. (2000). *The reading teacher's book of lists*, (4th ed.). San Francisco, CA: Jossey-Bass. (See Suggested Phonics Teaching Order, Phonics, Example Words, and Phonograms," pages, 9-42)

Gunning, T.G. (2001). *Building words: A resource manual for teaching word analysis and spelling strategies*. Needham Heights, MA: Allyn & Bacon. (See "The Content of Phonics," pages 6-10)

Miller, W. H. (2002). *Reading skills problem solver: Ready-to-use strategies and activity sheets for correcting all types of reading problems*. Paramus, NJ: Center for Applied Research in Education. (See pages 72-82)

Skinner, L., Gillespie, P., & Balkam, L. (1998). *Teaching adults who learn differently: An extensive guide for literacy teachers and tutors*. San Diego, CA: Red Van Publishers. (See "General Scope and Sequence of Structured Literacy Program," pages 212-213)

Wilson, R. & Hall, M. (1997). *Programmed word attack for teachers*. Upper Saddle River, NJ: Merrill. (A self-study guide for teachers on word analysis terminology and concepts)

Appendix C: Options for Calculating Readability

Flesch-Kincaid

The Flesch-Kincaid readability formula is based on the number of words, syllables, and sentences in a passage. It yields a "reading ease" score and a grade level. It's easy to use with electronic text because it's one of the tools available in Microsoft Word and Word Perfect. In Microsoft Word, you can find it via the Tools menu, under Spelling and Grammar.

Fry's Readability Graph

The Fry graph is also easy to use, and you can use it with material that you don't have in electronic form. You just select a 100-word passage from the text to be analyzed, count the number of sentences and the number of syllables, and plot those numbers on the graph to calculate the grade level of the material. The graph and directions may be found online at the Discovery School site *school.discovery.com/schrockguide/fry/fry.html* and in *The Reading Teacher's Book of Lists*, (Fry, Kress, & Fountikidis, 2000).

Gunning-Fog Index

This formula is based on sentence length and the number of "hard words" (defined as those with more than two syllables). Directions like those below may be found at various sites online.

1. *Calculate the average sentence length (ASL)*
   Choose a sample at least 100 words long. Count the words and the sentences. Divide the number of words in the sample by the number of sentences to compute the average sentence length.
2. *Find the percentage of hard (polysyllabic) words (%P)*
   Count the words that have three or more syllables. (Do not include those whose third syllable is **es** or **ed**. Do not include proper nouns and other capitalized words, technical terms, or compounds composed of small words.) Divide this number by the total number of words in the sample to compute the percentage of hard words (%P).
3. *Add the ASL and the %P and multiply the sum by .4*
   ASL + %P = ___ x .4 = grade level

Appendix D:
A Rule-Based Procedure for Summarization

The example below is a procedure for summarizing a paragraph (McNeil & Donant, as cited in Duke & Pearson, 2002).

Rule 1:	Delete unnecessary material.
Rule 2:	Delete redundant [repetitive] material.
Rule 3:	Compose a word to replace a list of items.
Rule 4:	Compose a word to replace individual parts of an action.
Rule 5:	Select a topic sentence.
Rule 6:	Invent a topic sentence if one is not available.

Here's how it might work.

Paragraph to be summarized:
Today's employers are looking for workers with many skills. They want people who are flexible and can do many things well. Good reading and math skills are the minimum requirements for most jobs. Employees must also know how to learn. They must be able to read new information and learn new skills by reading. They need to be able to read technical manuals with charts and graphs and statistics. Many jobs also require computer skills. To use a computer, workers must at least be good readers, but jobs involving technology also demand analytical thinking and problem solving. Finally, employers want people who have good communication skills and who know how to work well with people. These are often called "soft skills," but for many jobs these skills may be the most important keys to success.

1. Delete unnecessary material.

Today's employers are looking for workers with many skills. They want people who are flexible ~~and can do many things well~~. Good reading and math skills are the minimum requirements for most jobs. Employees must also know how to learn. They must be able to read new information and learn new skills by reading. They need to be able to read technical manuals ~~with charts and graphs and statistics~~. Many jobs also require computer skills. To use a computer, workers must at least be good readers, but jobs involving technology also demand analytical thinking and problem solving. Finally, employers want people who have good communication skills and who know how to work well with people. These are often called "soft skills," but for many jobs these skills may be the most important keys to success.

2. Delete redundant material.

Today's employers are looking for workers with many skills. They want people who are flexible Good reading and math skills are the minimum requirements for most jobs. Employees must also know how to learn. [~~They must be able to read new information and learn new skills by reading. They need to be able to read technical manuals.~~] Many jobs also require computer skills. [~~To use a computer, workers must at least be good readers,~~] but jobs involving technology also demand analytical thinking and problem solving. Finally, employers want people who have good communication skills and who know how to work well with people. These are often called "soft skills," but for many jobs these skills may be the most important keys to success.

(Result)

Today's employers are looking for workers with many skills. They want people who are flexible. Good reading and math skills are the minimum requirements for most jobs. Employees must also know how to learn. Many jobs also require computer skills. Jobs involving technology also demand analytical thinking and problem solving. Finally, employers want people who have good communication skills and who know how to work well with people. These are often called "soft skills," but for many jobs these skills may be the most important keys to success.

3. Compose a word to replace a list of items.

Communication skills = soft skills, work well with people. Computer skills = technology. Problem solving = analytical thinking.

(Result)

Today's employers are looking for workers with many skills. They want people who are flexible. Good reading and math skills are the minimum

This procedure may be most appropriate for fairly advanced readers. To know what is unnecessary the reader must already have at least a sense of the main idea of the paragraph. You might have learners create paragraph "maps" first, to identify the main idea and/or work with a partner to think through the decisions to delete material.

requirements for most jobs. Employees must also know how to learn. Many jobs also require computer skills and demand problem solving. Finally, communication skills may be the most important keys to success.

4. Compose a word to replace individual parts of an action.

Are looking = want, are minimum requirements, must, require, demand, may be most important.

(Result)

Today's employers are looking for workers with many skills: flexible, good reading and math skills, know how to learn, computer skills, problem solving, and communication skills.

5/6. Select a topic sentence or invent one if necessary

Today's employers are looking for flexible workers who have good reading and math skills, who know how to learn, who can use a computer to solve problems, and who have good communication skills.

For copies of this book, download PDF or HTML versions at www.nifl.gov/partnershipforreading.


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