



Scientific Evidence for Adult Literacy Educators

## Welcome to QEd

*The National Institute for Literacy is pleased to bring you QEd, a five-issue series for the adult education community—literacy educators, paraprofessionals, program directors, and volunteers.*

*QEd will bring you ideas and information from the expanding scientific research base on how adults learn to read. This first issue tells the story of how researchers are using the high quality, scientific standards that adult literacy deserves and demands.*

*This issue also brings you news of an exciting new publication, Applying Research in Reading Instruction for Adults: First Steps for Teachers, which offers specific connections between the research and the classroom. In future issues, QEd will amplify the key literacy elements discussed in this book. We invite you to download a copy of the publication from the Institute's newly redesigned website, [www.nifl.gov](http://www.nifl.gov). While you're there, check out other useful resources, including our discussion lists, which continue to provide the adult education community with its most energetic, interactive resource.*

*Adult educators have a cherished history of collaboration and camaraderie. Scientifically based research inspires and challenges us as we work together to understand its implications and the power of its findings.*

*Please join us on this journey of reflection and renewal! Send your thoughts and ideas to us at [info@nifl.gov](mailto:info@nifl.gov). I look forward to hearing from you!*

Sandra L. Baxter, Ed.D.  
Director, National Institute for Literacy

*Scientifically based research*

## Strengthening the Foundations of Adult Literacy Instruction

**I**n the next four issues, QEd will focus on the science and practice of reading instruction. We begin with a brief primer on scientific research and the four components of adult literacy instruction.

For more than a century, adult literacy educators have built their profession through experience, respect and caring for their students, and intuitive insight about what works. Today, the rigorous, scientific study of adult literacy instruction promises to deepen our understanding of educators' successful practices and generate new knowledge about how adults learn to read.

The National Reading Panel's report of 2000 yielded a scientifically reliable body of knowledge of how children acquire literacy. Similar scientific research is underway for adults. The words "scientifically based reading research" first appeared in the Reading Excellence Act in 1998, and later in the No Child Left Behind Act in 2002. The definition of scientifically based reading research has become the "gold standard" for research quality across the spectrum of reading instruction from early childhood to adulthood.

### **What Is Scientifically Based Reading Research?**

A National Institute for Literacy publication, *Using Research and Reason in Education* by Paula J. Stanovich and Keith E. Stanovich (see Publications, page 6), discusses the scientific process, particularly as it applies to educational research, in clear terms. The authors suggest three criteria a scientific claim must meet:

- Publication in refereed journals (scientific publications that employ a process of peer review). Peer review is a minimal criterion. As philosopher Daniel Dennett puts it, "Science is

making mistakes in public." Any idea, theory, or practice that has not passed scrutiny by other experts in the field should be regarded with strong skepticism.

- Duplication of the results by other researchers. Scientific knowledge is held tentatively, subject to change based on new evidence. Scientific claims must be openly tested by other scientists in order to be credible.
- Consensus within a particular research community on whether there is a critical mass of other studies that point toward a particular conclusion. In the quest for usable knowledge, scientists—and teachers—can rely on consensus, that is, when most evidence points to a particular conclusion. No single experiment can be definitive, but numbers of experiments may point in the same direction. Meta-analyses, such as the National Reading Panel's examination of reading studies, are often used to aggregate the results from many smaller studies.

### **Experimentation**

Science subjects the world to structured, systematic observation. Observation alone is not

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## **What the Research Says About Adult Literacy**

Research, such as that summarized by the National Research Council and the National Reading Panel, has shown that four components are crucial in learning to read. They are alphabets, fluency, vocabulary, and comprehension. The Adult Literacy Research Working Group used them as the framework for its review of adult reading instruction research, published by the Institute as *Research-Based Principles for Adult Basic Education Reading Instruction* (see page 6). The next four issues of QEd will cover the four components, along with assessment. Here is a brief overview of each.

- **Alphabets**, the basic building block of reading, consists of phonemic awareness (the ability to hear and manipulate the basic sounds—phonemes—of spoken language) and word analysis (the ability to connect letters to the sounds they stand for). Teachers can assess word analysis by having a learner sound out or pronounce groups of letters or words. Explicit instruction in letter–sound relationships is an effective way of teaching word analysis.
- **Fluency** is the ability to read easily and quickly. Readers must be able to decode, or make sense of, what they are reading. Many beginning readers are not fluent; they hesitate or read slowly when reading aloud. Speed, accuracy, and prosody (reading with the right emphasis and rhythm) are the three elements

of fluency. Fluency can be measured by having learners read aloud and improved through guided repeated oral reading.

- **Vocabulary** is all the words a reader recognizes and understands. It is crucial to the ability to understand text—to recognize decoded words. Vocabulary can be assessed through oral questioning (although oral vocabulary—the spoken words one understands—is often greater than reading vocabulary), multiple choice, or other tests. There is little conclusive vocabulary research with adults, but studies with children suggest that vocabulary can be increased through explicit instruction and association methods, among others.
- **Comprehension** is making sense of what is being read. It is the whole point of reading. Teachers usually measure comprehension by having students read a passage and then answer questions. Research

has shown that direct instruction in comprehension strategies can help readers increase their understanding of a text’s content.

Reading comprehension depends on all the other components. If a reader cannot decode a word (alphabets), he will not likely recognize it as a word he knows (vocabulary). Without understanding the individual words, comprehension will suffer. Teachers must focus not only on the four individual components, but on how they interact.

- **Motivation and reading assessment** also play important roles in adult reading instruction. Motivation is particularly important because adults face more barriers to success—such as a lack of free time, or embarrassment about their inability to read. Assessing reading ability is important because adults’ abilities may range widely from beginner to more advanced.

## **DERIVING PRINCIPLES**

To research adult literacy, the Adult Literacy Research Working Group (ALRWG) identified the major topics to study, set standards for evaluating studies, located and evaluated studies, and categorized them by topic. The most important findings, or emerging principles, were based on peer-reviewed articles, and the greatest weight was given to studies that compared adults in different treatment groups. Descriptive studies were used as supporting evidence.

Because the number of studies was relatively small, ALRWG supplemented the emerging principles with ideas and comments carefully selected from the K–12 research, taking into account the important differences between adult and child readers.



*Q.E.D. abbreviates the Latin phrase “quod erat demonstrandum,” literally, “that which was to be demonstrated” and is taken to mean “it is shown.” Mathematicians often use Q.E.D. to show that the result necessary to complete a proof has been reached. We have named this publication series QEd in the spirit of embracing the scientific research that informs adult literacy instruction.*

## Strengthening the Foundations of Adult Literacy Instruction

(continued from page 1)

enough, however: a researcher may find that two things are related, but without true experimentation, cannot conclude which causes which—or whether a third factor altogether has caused the change.

True experiments use manipulation and control: a researcher manipulates one factor, or variable, and looks for an effect while holding other variables constant, to the extent possible. In education (and medicine) researchers usually compare the effects of an intervention on both a control and “intervention” group. In randomized controlled trials, participants are randomly assigned to one group or the other, giving us more confidence that differences in the outcomes occurred because of the intervention, not some other unknown, unexpected, or unseen factor.

### **When True Experiments Are Not Possible**

This “gold standard” is not always feasible. Randomized trials are expensive and require fairly large numbers of participants. More important, they must be done carefully, so that results can be linked to the intervention, not some other factor (e.g., different levels of teacher skills). Other factors may compromise a study. Are the researchers collecting the right data? How do they define outcomes? (For example, in a study on retention, what does “dropping out” mean?) Could the data collectors be biased? (In the best case, data collectors don’t know who is in which group—control or intervention).

When random assignment is not possible, most researchers accept well-done non-random comparison group (quasi-experimental) studies. In these studies, researchers use statistical techniques to try to match the groups under study,

### DEFINITION OF READING

As defined in the No Child Left Behind Act, “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, and
- the development and maintenance of a motivation to read.

so that the intervention is the only differing factor.

Researchers also look at non-experimental studies, such as case studies and other qualitative approaches that also must be peer reviewed or approved by a panel of experts.

Science is a powerful, democratic tool. By understanding the basic principles of scientific research, practitioners can consult the research and decide a claim’s validity for themselves. “Professional wisdom,” the wisdom teachers acquire through experience, is strengthened when empirical evidence can back it up. The term “evidence-based education” is widely used today to describe educational practices that integrate teachers’ professional wisdom with the soundest research.

## A NEW ERA FOR RESEARCH AND THE INSTITUTE



The National Institute for Literacy has proudly served the adult education community for 15 years. Programs like Bridges to Practice and resources such as the LINCS website have made the Institute the leading provider of information for adult literacy educators.

The Institute’s mission, and funding, stem from both the Adult Education and Family Literacy Act in the

Workforce Investment Act (WIA) and, more recently, the No Child Left Behind Act (NCLB). WIA directs the Institute to provide national leadership on literacy, coordinate literacy services and policy, and serve as a national resource for adult education and literacy programs. NCLB requires the Institute to disseminate information on scientifically based reading research on children, youth, and adults.

The intense focus on scientifically

based research gives the Institute an opportunity to expand both the quality and number of adult literacy resources it offers. As the adult literacy profession matures and deepens by virtue of well-studied, well-implemented programs, the Institute will continue to be a primary source of information about the uses of research to improve instruction and resources based on the best research available.

## New Book for Adult Literacy Educators Is Grounded in Real-Life Examples

Adult learners come from many literacy backgrounds. Some are highly fluent in their native language. Others have never learned to read in any language. Adult educators need a powerful toolkit to meet the needs of such a diverse group of students. *Applying Research in Reading Instruction for Adults: First Steps for Teachers*, by Susan McShane of the National Center for Family Literacy and published last year by the National Institute for Literacy, is a highly useful “field manual” for using reading research effectively with adult learners.

Drawn from “the resource of first resort for adult educators,” as McShane calls John Kruidenier’s *Research-Based Practice for Adult Basic Education Reading Instruction*, *Applying Research* is intended as a series of “first steps” for teachers—a way of setting out in the right direction, with a strong sense of the goals, means, and avoidable pitfalls in making research-based instructional decisions.

*Applying Research* is written with the realities of adult literacy instruction in mind, such as mixed ability levels and continuous enrollment. It makes the research principles identified in *Research-Based Principles* concrete through plentiful examples and through modeling the kinds of thinking, planning, and problem-solving a skilled adult educator would use in a classroom. (Examples are fictionalized, but based on real events.) Each section of the book contains checklists and other forms teachers can use with their own students.

McShane treats each component of adult literacy learning and instruction evidenced by the research—alphabeticity, fluency, vocabulary, and comprehension—in its own chapter, proceeding through a series of questions for each component: What is it? Why is it important? Who needs to develop it? How can we assess it? What kind of instruction is most effective in teaching it? What does practice in it look like? All references are cited

directly in the text so the reader gains constant familiarity with the research base.

In other chapters, McShane presents a short primer on evaluating research claims (amplified in an appendix on the design of educational research studies), offers some suggestions for beginning teachers, and explores assessments in depth. She describes the rationale for and specifics of assessing students’ learning, gives an overview and explanation of the different types of assessments and their purposes, clearly explains technical assessment terms such as validity and reliability, and takes the reader through the process of planning initial assessments.

The book culminates in a “guided tour” of a fictional class of adult learners. McShane shows how a (fictional) teacher approaches her class of nine students of widely varying reading ability, from initial interviews to individual learning plans.

McShane offers sample class schedules for

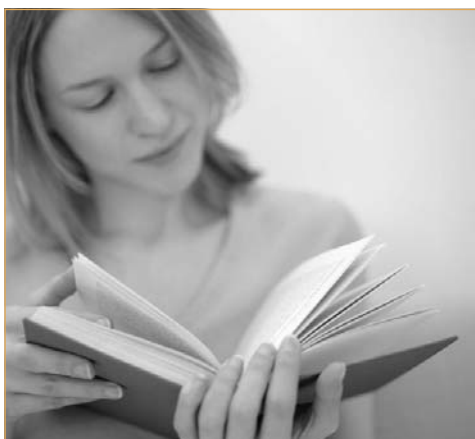
whole and small group learning, discusses ways to group students for optimal learning, shows how to graph assessment results for easy understanding, and makes suggestions for how students can continue their reading outside of the classroom.

*Applying Research* also pays close attention to the adult educator’s own learning needs. McShane suggests ways that teachers can assess their own needs for further study and plan how to acquire additional skills and knowledge, and offers a list of resources for further learning. To download a free copy, go to

- **PDF version** – <http://www.nifl.gov/partnershipforreading/publications/applyingresearch.pdf>
- **HTML version** – <http://www.nifl.gov/partnershipforreading/publications/html/mcshane>

Copies can also be ordered by contacting the National Institute for Literacy at [www.edpubs.org](http://www.edpubs.org), calling 1-800-229-8813, or by emailing [edpubs@inet.ed.gov](mailto:edpubs@inet.ed.gov).

***As teachers and programs become more capable of applying research-based principles...the real winners should be adult learners and their families.***



### GOING DEEPER: PUBLICATIONS FOR TEACHERS ABOUT SCIENTIFICALLY BASED RESEARCH

Understanding what scientifically based research means can be a useful skill for teachers when they assess the progress of students, decide what claims of educational effectiveness are defensible, and choose what educational materials to use.

The National Institute for Literacy offers two publications written just for teachers: *Using Research and Reason in Education* and *What is Scientifically Based Research?* If you would like to be a better research “consumer,” see the Publications section (page 6) for information on how to get these publications.



## The Institute's Adult Literacy Research Working Group: Connecting Research to Teaching

The Reading Research Working Group (RRWG), established by the National Institute for Literacy (the Institute) and the National Center for the Study of Adult Learning and Literacy (NCSALL) in 2001, answered many questions about effective practices in teaching adults to read. Their work resulted in the publication of *Research-Based Principles for Adult Basic Education Reading Instruction*, the field's first major compendium of findings on what works best in adult literacy classrooms. Drawing on the adult basic education (ABE) reading instruction research and relevant findings from the National Reading Panel's review of research on instructing children to read, *Research-Based Principles* set the stage for further investigation into adult reading instruction.

The Institute also recognized the need to bring the research findings to the field. With NCSALL, the Institute established an expert group called the Adult Literacy Research Working Group (ALRWG) to recommend dissemination activities and new reading resources and assist in the continuous review of the literature. Members of the ALRWG have supported the Institute's work on reading by making presentations at conferences and workshops, and participating in teacher training sessions.

On the research front, the Institute is expanding and updating the body of research-based principles for adult literacy instruction, drawing from recent studies in peer-reviewed journals; recent non-peer reviewed studies vetted by the ALRWG; relevant research studies on other, non-ABE populations (children, adolescents, community college students, and those learning to read in a second language); and the effects of writing instruction on reading.

At the same time, the Institute, at ALRWG's suggestion,

produced shorter, less technical versions of the research-based principles, such as *Teaching Adults to Read*, which synthesizes the findings in *Research-Based Principles* for ease of use by adult literacy practitioners. ALRWG is also producing a workshop on *Research-Based Principles* to give participants hands-on experience in applying these principles in teaching reading to adults.

The ALRWG comprises more than 40 experts from education, private industry and government. It makes recommendations through five committees:

- **Planning**—provides direction, oversight, and input to ALRWG projects. In addition to adult literacy experts, it includes representatives of five federal agencies.
- **Research**—reviews and evaluates current research to update the research-based principles and practices in *Research-Based Principles* and advises the full ALRWG on study methodologies and data quality.
- **Research Review for Non-Peer Reviewed Articles**—conducts independent reviews, similar to those used by journal editors, of non-peer reviewed studies to determine their applicability to the research-based principles of adult literacy instruction.
- **Resource Development**—identifies existing, and produces new, resources on adult literacy of value to the field. These resources may include paper and electronic documents (on CD-ROMs or websites) and teacher training programs and materials.
- **Dissemination**—targets adult and family literacy practitioners, policymakers, and researchers with information about the ALRWG and products it has created. The committee matches materials to audiences for the greatest effect on adult literacy.

### Milestones

*Milestones* features some of the exceptional people who have been part of the long history of adult literacy education in the United States. It also illustrates the movement toward integrating professional wisdom and scientific approaches in teaching reading to adults.

*Tom Sticht, an international consultant in adult education, received UNESCO's Mahatma Gandhi medal in 2003 for 25 years of volunteer service on UNESCO's International Jury for Literacy Prizes.*

### HARRIET A. JACOBS: LITERACY AND LIBERATION

by Tom Sticht

One of the earliest accounts of teaching an adult to read comes from the slave Harriet A. Jacobs (1813-1897). Even though it was unlawful to teach slaves to read, Jacobs' owner's daughter taught her to read and write. In 1861, after she became a free woman, Jacobs wrote "Incidents in the Life of a Slave Girl Written by Herself" (Jacobs, 1987/1861). In the book she tells how she helped an older black man, a slave like her, learn to read: "I taught him his A, B, C—his progress was astonishing—At the end of six months he had read through the New Testament and could find any text in it."

Later, Jacobs taught literacy to former slaves in the Freedmen's schools during Reconstruction following the Civil War:



Harriet A. Jacobs

## Publications

The Partnership for Reading at the National Institute for Literacy has invested in the development of several groundbreaking publications that summarize the most current scientifically based research findings on effective adult literacy instruction. All of these products, as well as *Applying Research in Reading Instruction for Adults*, described on page 4, are available for free at [www.nifl.gov](http://www.nifl.gov).

### **Research-Based Principles for Adult Basic Education Reading Instruction**

This book (130 pages) presents findings from the Adult Literacy Research Working Group's (ALRWG) comprehensive review of scientifically based research on adult literacy instruction and relevant studies of teaching children to read. After establishing the major topics it would study (alphabetics, fluency, vocabulary, comprehension, assessment, and using computer technology) and the standards it would use to evaluate studies (peer-reviewed articles), ALRWG derived a set of evidence-based principles, trends, and promising ideas in adult literacy instruction. *Research-Based Principles* is intended to serve two primary audiences: the educators and policymakers who select the content of adult basic education reading instruction, and researchers eager to identify new avenues of study to add to our understanding of this field. By John R. Kruidenier.

- **PDF version** – [http://www.nifl.gov/partnershipforreading/publications/adult\\_ed\\_02.pdf](http://www.nifl.gov/partnershipforreading/publications/adult_ed_02.pdf)
- **HTML version** – [http://www.nifl.gov/partnershipforreading/publications/html/adult\\_ed](http://www.nifl.gov/partnershipforreading/publications/html/adult_ed)

### **Teaching Adults to Read: A Summary of Scientifically Based Research Principles**

A short version of *Research-Based Principles for Adult Basic Reading Instruction*, this booklet (16 pages) is useful for educators seeking a brief overview of the research findings. It explains the importance of key literacy concepts (alphabetics, vocabulary, fluency, and comprehension) and suggests effective practices in the adult education classroom. By Mary E. Curtis and John R. Kruidenier.

- **PDF version** – [http://www.nifl.gov/partnershipforreading/publications/teach\\_adults.pdf](http://www.nifl.gov/partnershipforreading/publications/teach_adults.pdf)
- **HTML version** – [http://www.nifl.gov/partnershipforreading/publications/html/teach\\_adults/teach\\_adults.html](http://www.nifl.gov/partnershipforreading/publications/html/teach_adults/teach_adults.html)

### **Using Research and Reason in Education**

Teachers value the power of information, but the demands of school life makes it difficult to stay current with research on effective instruction. This monograph (48 pages) helps teachers become discerning consumers of educational programs and materials. It provides guidance on how to recognize scientifically based instructional strategies and how to use the concepts of research in the classroom. By Paula J. Stanovich and Keith E. Stanovich.

- **PDF version** – [http://www.nifl.gov/partnershipforreading/publications/pdf/Stanovich\\_Color.pdf](http://www.nifl.gov/partnershipforreading/publications/pdf/Stanovich_Color.pdf)
- **HTML version** – <http://www.nifl.gov/partnershipforreading/publications/html/stanovich>

### **What is Scientifically Based Research? A Guide for Teachers**

A short version of *Using Research and Reason in Education*, this 12-page booklet offers a quick introduction to the concepts of rigorous research that have become the gold standard for evaluating statements of educational effectiveness. The publication helps teachers judge outcome claims, and think scientifically when assessing the impact of their own teaching.

- **PDF version** – [http://www.nifl.gov/partnershipforreading/publications/science\\_research.pdf](http://www.nifl.gov/partnershipforreading/publications/science_research.pdf)
- **HTML version** – <http://www.nifl.gov/partnershipforreading/publications/html/science/stanovich.html>

### **Report of the National Reading Panel: Teaching Children to Read**

This is the full report of the National Reading Panel, which was created by Congress in 1997 to review the research on reading instruction and identify those practices proven effective through quality research. The report has been used by adult literacy researchers for guidance in identifying reading components and strategies with potential application for adult learners. Highly detailed, this report is designed for educators, teachers, and policy-makers interested in a thorough grounding in evidence-based reading research.

- <http://www.nationalreadingpanel.org>

Copies can also be ordered by contacting the National Institute for Literacy at [www.edpubs.org](http://www.edpubs.org), calling 1-800-229-8813, or by emailing [edpubs@inet.ed.gov](mailto:edpubs@inet.ed.gov).



### **ONLINE FORUMS FOR ADULT LITERACY STAKEHOLDERS**

Since 1995, the Institute's online discussion lists have given thousands of literacy stakeholders a forum for staying current with discussing the field's critical issues, posing questions to experts, and sharing resources, experiences, and ideas. The lists are extremely active, with new posts daily. Each discussion list is moderated by an expert in the field. Sign up at [www.nifl.gov/lincs/discussions/discussions.html](http://www.nifl.gov/lincs/discussions/discussions.html).

- List topics are:
- Adult Literacy Professional Development
  - Assessment
  - Adult English Language Learners
  - Family Literacy
  - Focus on Basics
  - Health Literacy
  - Learning Disabilities
  - Poverty, Race, Women, and Literacy
  - Special Topics
  - Technology & Literacy
  - Workplace Literacy

## Study Circles: A Collegial Way to Explore the Research

*New, practical research-based resources for adult reading teachers*

Study Circles offer an interesting, hands-on way to become familiar with adult reading instruction research. In Study Circles, small groups of teachers—usually 8-12—explore research topics of interest. Guided by a facilitator, the group discusses the research in light of members' knowledge and experience, and plans ways to apply ideas from the Study Circle in their work.

A Study Circle facilitator will find everything needed to lead three Study Circle discussions in NCSALL's *Study Circle Guide: Research-Based Adult Reading Instruction*. Based on *Research-Based Principles for Adult Basic Education Reading Instruction* and other research, the Guide includes:

- how to organize and promote a Study Circle;
- how to prepare for and facilitate each session;
- objectives and activities for each session;
- photocopy-ready handouts and readings; and
- facilitator notes and content for flipcharts.

The three sessions cover:

- *Session One*—the reading process, the types of reading research, and the four research-based components of reading instruction: alphabets, fluency, vocabulary, and comprehension.
- *Session Two*—using the four components in teaching reading, understanding adult readers, and promoting literacy practices.
- *Session Three*—assessing adult learners' reading, teaching adults about the reading process, and applying participants' knowledge in their own programs.

Quick Reference Sheet for Facilitating Session One	
1. Welcome and Introductions	10 mins., WHOLE GROUP
<ul style="list-style-type: none"> <li>• Everyone introduces themselves.</li> <li>• Housekeeping and logistics.</li> </ul>	
2. Purpose and Overview of the Study Circle, Session One Objectives, and Agenda	15 mins., WHOLE GROUP
<ul style="list-style-type: none"> <li>• Post newsprints; pass out handout <i>Overview of Study Circle</i>; review.</li> </ul>	
3. Participant Expectations and Group Guidelines	25 mins., WHOLE GROUP
<ul style="list-style-type: none"> <li>• Review handout <i>The Role of Participant</i>, post newsprint <u>What I Hope to Get from this Study Circle</u>.</li> <li>• List responses to <u>What I Hope to Get from this Study Circle</u>.</li> <li>• Summarize against <i>Overview of Study Circle</i>.</li> <li>• Refer to <i>What Study Circles Are and Are Not: A Comparison</i>.</li> <li>• Pass around handout <i>Sample Group Rules</i>; add rules; discuss.</li> </ul>	
4. Models of Reading: Where Do You Stand?	45 mins., WHOLE GROUP
<ul style="list-style-type: none"> <li>• Post three newsprints (<u>Skills-Driven Model</u>, <u>Comprehension-Driven Model</u>, <u>Integrated Model</u>) around room.</li> <li>• Whole group discussion:               <ul style="list-style-type: none"> <li>? <i>If you used this model, what else would you believe?</i></li> </ul> </li> <li>• Stand-up discussion:               <ul style="list-style-type: none"> <li>? <i>Which model best represents how you currently teach reading?</i></li> <li>? <i>Which model best reflects how you would like to teach reading?</i></li> </ul> </li> </ul>	
15-Minute Break	

*An excerpt from the Study Circle Guide, which is available from NCSALL at [www.ncsall.net](http://www.ncsall.net).*

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### **The National Institute for Literacy**

Sandra Baxter, Director  
Lynn Reddy, Deputy Director

The National Institute for Literacy, a federal agency, provides leadership on literacy issues, including the improvement of reading instruction for children, youth, and adults. In consultation with the U.S. Departments of Education, Labor, and Health and Human Services, the Institute serves as a national resource on current, comprehensive literacy research, practice, and policy.

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.

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**PEQ**

Scientific Evidence for Adult Literacy Educators

Watch future issues for news about

**alphabetics  
vocabulary  
fluency  
comprehension**

*This Partnership for Reading publication describes strategies proven to work by the most rigorous scientific 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. The application of these research-based strategies will increase the likelihood of success in reading instruction. Adherence to scientifically based research in this publication was ensured by a review process that included representatives of each Partnership for Reading organization and external expert reviewers. For detailed information on this review process, contact the Partnership for Reading at the National Institute for Literacy, 1775 I Street NW, Suite 730, Washington, DC 20006.*