



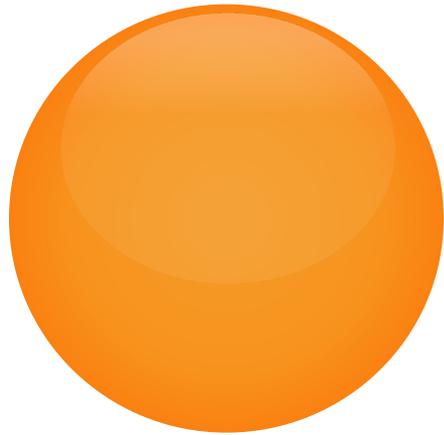
Evidence-Based Literacy Improvement

Timothy Shanahan

www.shanahanonliteracy.com

@ReadingShanahan





LITERACY IS IMPORTANT

It matters that our kids learn to read and write well



Literacy Matters

- Economics
 - Literacy attainment explains 55% of the economic growth in nations (Coulombe, Trembley, & Marchand, 2004)
 - Second-grade literacy explains economic success of individuals at age of 42 (Ritchie & Bates, 2013)

Literacy Matters

- Health

- Reading is associated to extended lifespan (Levy, 2016) probably because it improves cell interconnectivity
- Reading reduces stress by 68% (Lewis, 2009)
- Reading slows cognitive decline (Wilson, et al., 2019)



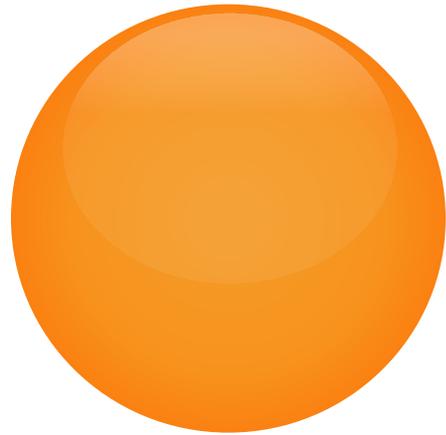
Literacy Matters

- Civics
 - Low readers are less apt to be knowledgeable of issues, candidates and current events (Venezky, et al., 1987)
 - Literacy rate affects voting rate (Rodriguez, 2014)



- Social Participation
 - Reading helps individuals to recognize the mental states of others (Kidd & Castano, 2013)
 - Reading improves empathy (Castano, 2013)



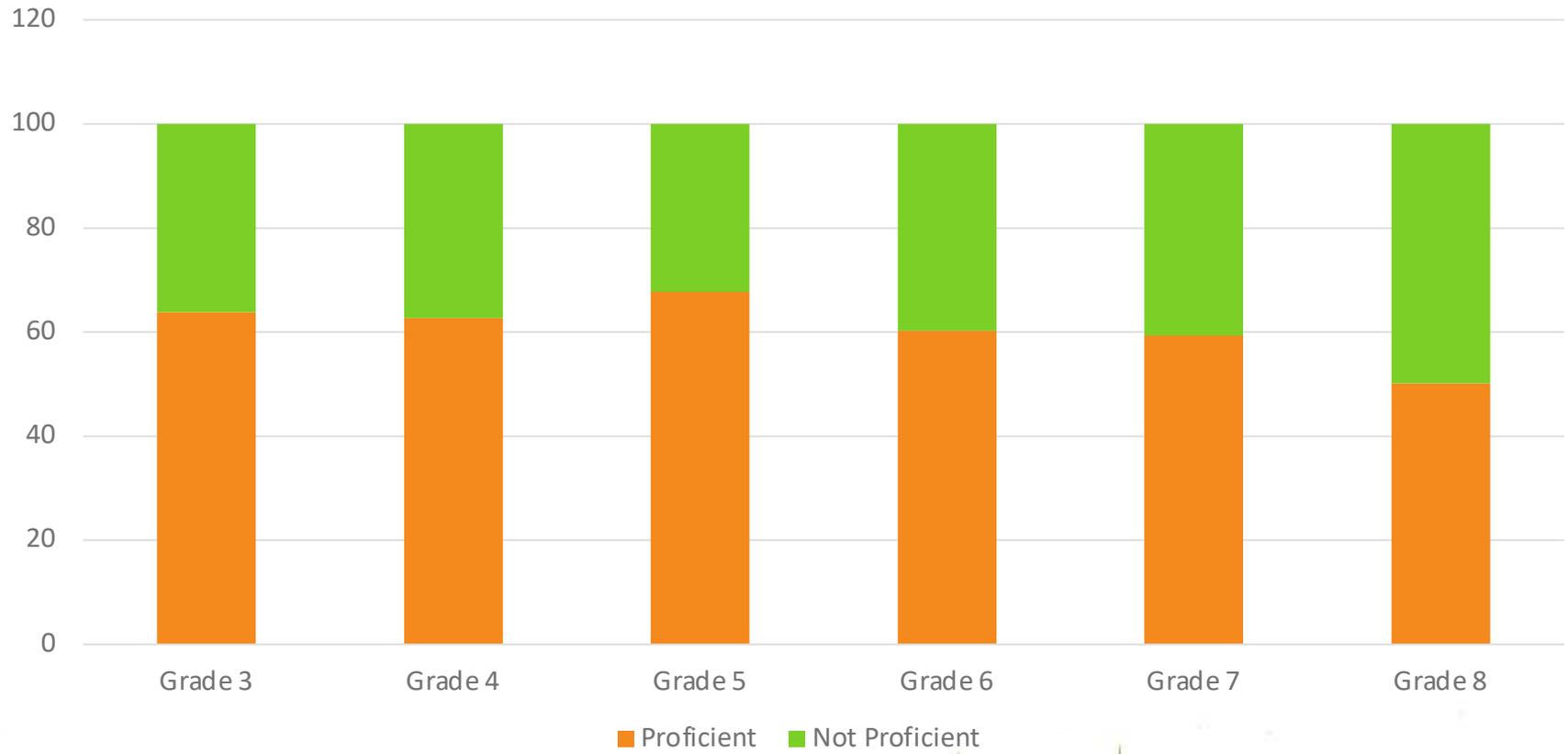


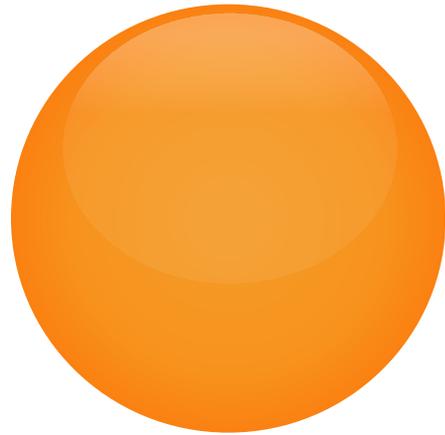
OUR KIDS DO NOT READ WELL



Reading Proficiency in Ohio

Ohio Reading Proficiency 2016-2017





HOW DO WE DECIDE HOW TO RESPOND TO OHIO READING NEEDS?



What is the source of our educational practices?



Tradition— we may do things the way we always have



Published programs– we do it if our district bought it



Authority– we do it if a guru says to do it



www.punkrock.com 2000-2011

Fads— we do it if everybody else is doing it

FADS OF THE
2010s



CASH
MOB

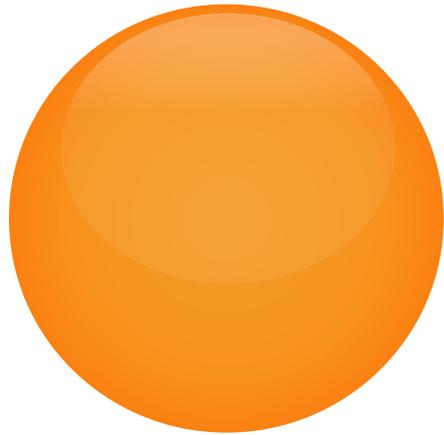


Inspiration– we do it if it feels right



Research– we do what can be proven to help kids learn





**WHY RESEARCH IS BEST?
WHAT RESEARCH IS BEST?**



Why research?

- We are all capable of learning from experience
- But we all suffer from narrow perspective, wishful thinking, and opportunity cost
- Research provides us with the tools to know things that go beyond our experience
- Research allows us to advance in socially acceptable way



Which research?

- Reading Wars of 1990s
- Not all research is equal
- Federal response was to put in place several supports in place for schools to ensure that they could and would use research
- Definition of research and evidence-based practice
- Research panels
- What Works Clearinghouse

Evidence-based practice

- Evidence-based practices are those “effective educational strategies supported by evidence and research” (ESEA)
- Essentially the instructional practice has a sound record of success
- This record of success is valid and reliable
- Educational practices should be based upon appropriate, sound, accumulation of research



Research

- Research does not refer to anything that is published
- Research requires the collection and analysis of data in a systematic, rule-based way
- Research is published through a refereeing system
- Nevertheless, not all research is equal—there are differences in appropriateness to particular claims and quality



Appropriateness of Research

- There are different kinds of research and they answer different kinds of questions
- Descriptive studies describe
- Correlational studies relate
- Experimental studies identify causal relationships
- Claims should match the nature of evidence



Sound Research

- Objective—data that any evaluator would identify and interpret similarly
- Valid—data that adequately represent the tasks that children need to accomplish to be successful readers
- Reliable—data will remain essentially unchanged if collected on a different day or by a different person
- Systematic—data that were collected according to a rigorous design of either experimentation or observation
- Refereed—data that have been approved for publication by a panel of independent reviewers

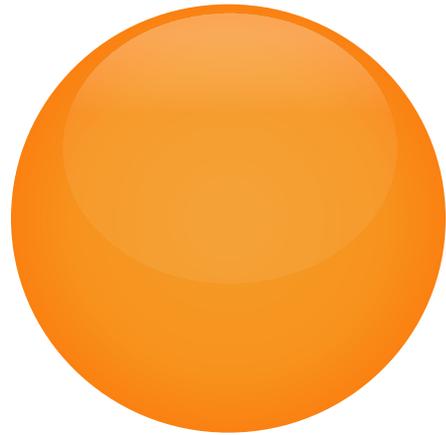
Accumulation of research

- Most educational experiments are small
- Replication is essential to getting it right
- Education studies vary in many ways
- Unfortunately, this can encourage cherry-picking (“you can prove anything with research”)
- Research synthesis (especially meta-analysis) has become the accepted way to scientifically combine studies

Meta-analyses

- Collection of methods used to identify and combine studies into synthesis
- Meta-analysis actually combines the data from multiple studies in a way that properly weights the contribution of each
- Allows for a systematic accounting of the differences in findings and for dealing with flaws in original researcher
- Leads to consistency of conclusions





**SOME EVIDENCE WORTH PAYING
ATTENTION TO**



Preventing Reading Difficulties

- National Research Council appointed a group of literacy experts to provide research-based recommendations on how to address early literacy
- They issued a report in 1998 focused on preschool, kindergarten, and primary grade reading instruction and support



Preventing Reading Difficulties in Young Children

NATIONAL RESEARCH COUNCIL

COMMITTEE ON THE PREVENTION OF READING DIFFICULTIES IN YOUNG CHILDREN

CATHERINE SNOW (*Chair*), Graduate School of Education, Harvard University, Chair

MARILYN JAGER ADAMS, Bolt, Beranek, and Newman Inc., Cambridge, Massachusetts

BARBARA T. BOWMAN, Erikson Institute, Chicago, Illinois

BARBARA FOORMAN, Department of Pediatrics, University of Texas, and Houston Medical School

DOROTHY FOWLER, Fairfax County Public Schools, Annandale, Virginia

CLAUDE N. GOLDENBERG, Department of Teacher Educ, California State University, Long Beach

EDWARD J. KAME'ENUI, College of Education, University of Oregon, Eugene

WILLIAM LABOV, Department of Linguistics and Psychology, University of Pennsylvania

RICHARD K. OLSON, Department of Psychology, University of Colorado, Boulder

ANNEMARIE SULLIVAN PALINCSAR, School of Education, University of Michigan, Ann Arbor

CHARLES A. PERFETTI, Department of Psychology, University of Pittsburgh

HOLLIS S. SCARBOROUGH, Brooklyn College, City University of New York, and Haskins Laboratories, New Haven, Connecticut

SALLY SHAYWITZ, Department of Pediatrics, Yale University

KEITH STANOVICH, Ontario Institute for Studies in Education, University of Toronto

DOROTHY STRICKLAND, Graduate School of Education, Rutgers University

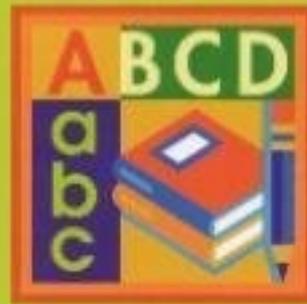
SAM STRINGFIELD, Center for the Social Organization of Schools, Johns Hopkins University

ELIZABETH SULZBY, School of Education, University of Michigan, Ann Arbor



National Reading Panel

- In 1998, Congress asked for a review of what works in reading instruction
- U.S. Department of Education and the National Institute of Child Health and Human Development appointed a panel
- Panel reviewed more than 500 studies on reading instruction (K-12)



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

National Reading Panel

Donald Langenberg, University of Maryland, Chair

Gloria Correro, Mississippi State University

Linnea Ehri, City University of New York

Gwenette Ferguson, Houston Public Schools

Norma Garza

Michael L. Kamil, Stanford University

Cora Bagley Marrett, University of Massachusetts-Amherst

S.J. Samuels, University of Minnesota

Timothy Shanahan, University of Illinois at Chicago

Sally E. Shaywitz, Yale University

Thomas Trabasso, University of Chicago

Joanna Williams, Columbia University

Dale Willows, University of Toronto

Joanne Yatvin, Portland State University



National Early Literacy Panel

- National Early Literacy Panel (2003-2008) reviewed research on the teaching of reading in preschool and kindergarten
- Largest meta-analysis of research data on the teaching of reading during these years (examined 400-500 studies)
- Set out to determine which skills needed to be taught early on and what confers literacy learning advantages to young children

Developing Early Literacy

REPORT OF THE NATIONAL EARLY LITERACY PANEL

a b c
d e f



A Scientific Synthesis of
Early Literacy Development
and Implications for Intervention

National Early Literacy Panel

Timothy Shanahan, University of Illinois at Chicago, Chair

Anne Cunningham, University of California Berkeley

Kathy C. Escamilla, University of Colorado

Janet Fischel, State University of New York at Stony Brook

Susan Landry, University of Texas Health Science Center at Houston

Christopher J. Lonigan, Florida State University

Victoria J. Molfese, University of Louisville

Chris Schatschneider, Florida State University

Dorothy Strickland, Rutgers University



National Literacy Panel for Language Minority Children and Youth

- National Early Literacy Panel (2003-2006) reviewed research on the teaching of reading to children (ages birth to 18) from language minority families
- Largest analysis of research data on the teaching of reading during this population
- Set out to make a wide range of determinations concerning what facilitates the English-language literacy learning of non-English speakers (including young children)

DEVELOPING LITERACY IN SECOND-LANGUAGE LEARNERS

Report of the National Literacy Panel on
Language-Minority Children and Youth

Edited by
DAVE AUGUST + TIMOTHY SHANAHAN

ES CAL

National Panel for Language Minority Children and Youth

Timothy Shanahan, University of Illinois at Chicago, Chair

Diane August, Center for Applied Linguistics

Isabel L. Beck, University of Pittsburgh

Margarita Calderón, Johns Hopkins University

David J. Francis, University of Houston

Georgia Earnest García, University of Illinois at Urbana-Champaign

Fred Genesee, McGill University

Esther Geva, University of Toronto

Claude Goldenberg, California State University, Long Beach

Michael L. Kamil, Stanford University

Keiko Koda, Carnegie Mellon University

Gail McKoon, Ohio State University

Robert S. Rueda, University of Southern California

Linda S. Siegel, University of British Columbia



What Works Clearinghouse

- U.S. Department of Education
- Panels of experts assembled based on particular topics
- Panels can make any recommendations that they choose, but WWC evaluates supporting research and indicates the strength of the underlying evidence





Teaching Secondary Students to Write Effectively



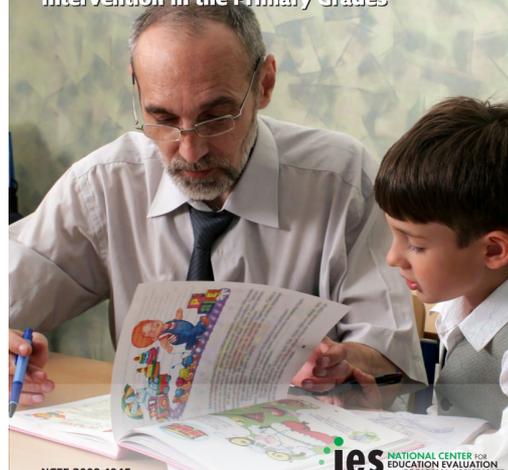
Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade



Teaching Elementary School Students to Be Effective Writers



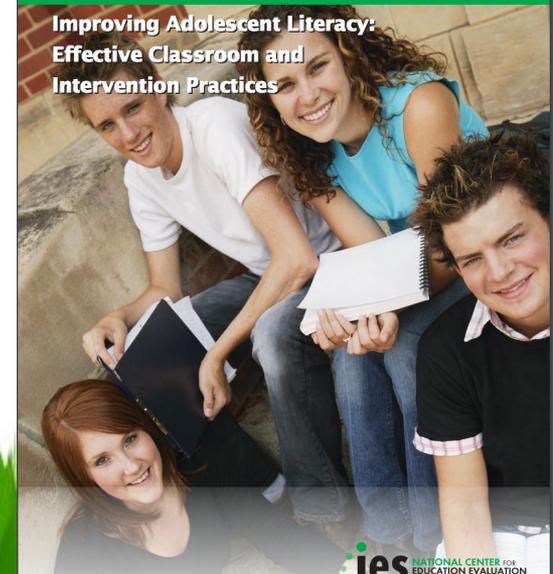
Assisting Students Struggling with Reading: Response to Intervention (RtI) and Multi-Tier Intervention in the Primary Grades



Improving Reading Comprehension in Kindergarten Through 3rd Grade



Improving Adolescent Literacy: Effective Classroom and Intervention Practices



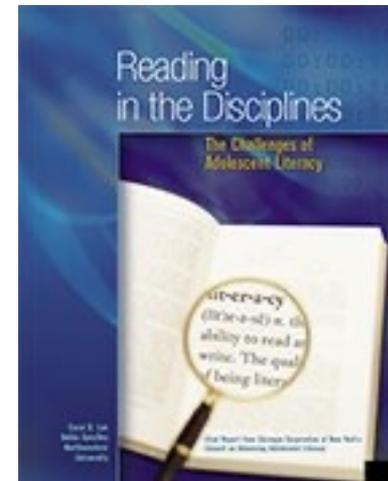
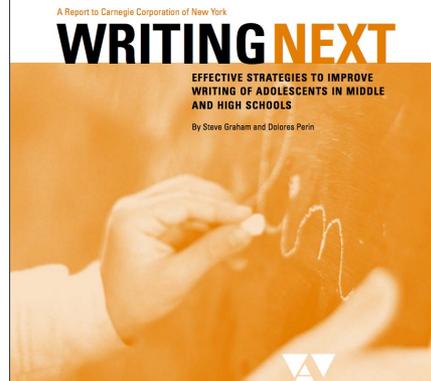
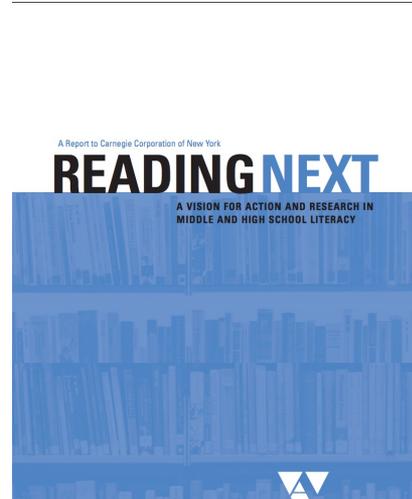
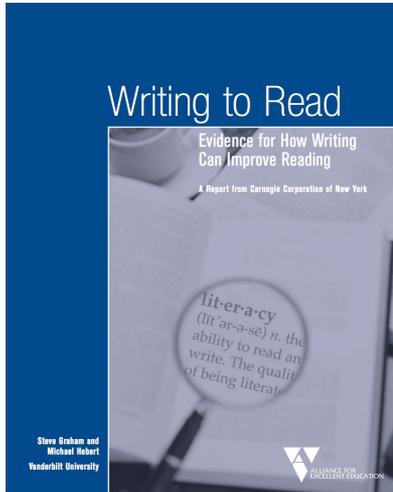
What Works Clearinghouse Panelists (sample)

- Carol Connor, Florida State University
- Janice Dole, University of Utah
- Nell Duke, Michigan State University
- Jill Fitzgerald, University of North Carolina
- Barbara Foorman, Florida State University
- Steve Graham, Arizona State University
- Laura Justice, Ohio State University
- Michael L. Kamil, Stanford University
- James Kim, Harvard University
- P. David Pearson, University of California, Berkeley
- Timothy Shanahan, University of Illinois at Chicago
- Joe Torgesen, Florida State University

Review of Educational Research



Carnegie Corporation

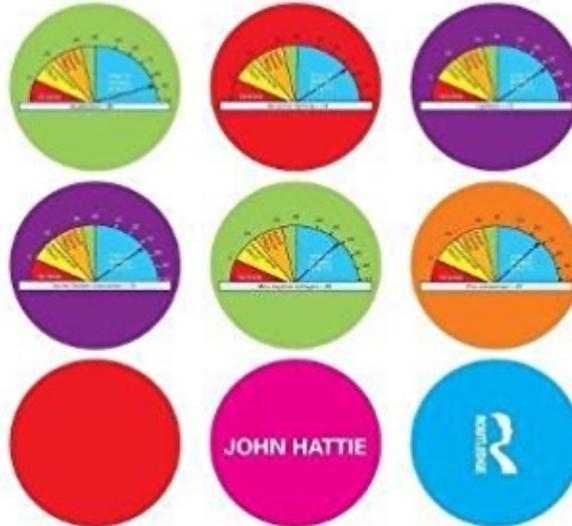


John Hattie

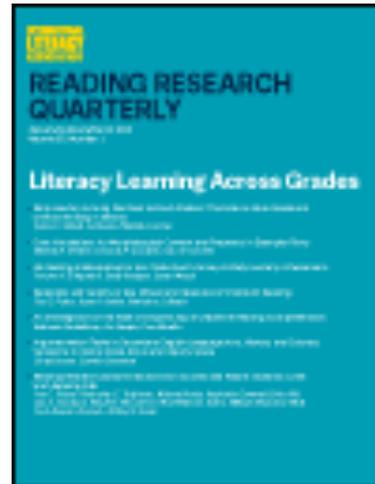
VISIBLE LEARNING

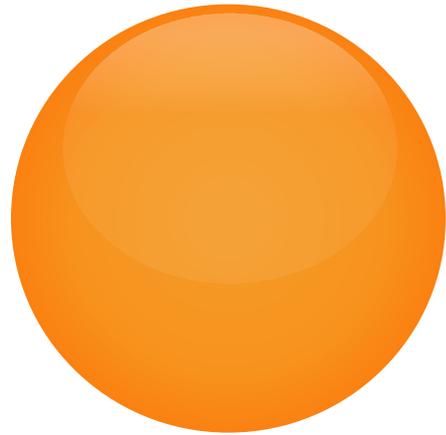
A SYNTHESIS OF OVER 800 META-ANALYSES
RELATING TO ACHIEVEMENT

"Reveals teaching's Holy Grail"
The Times Educational Supplement



Other highly ranked reading research journals





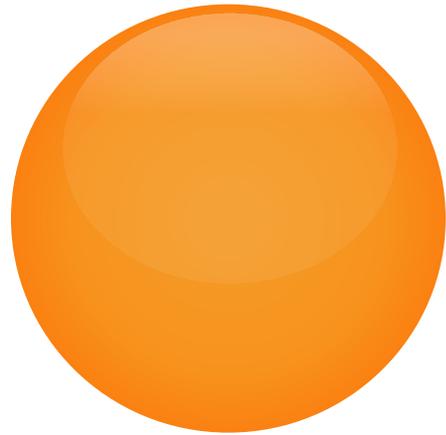
BASIC FINDINGS



Key research findings on literacy

- Phonemic awareness
- Phonics
- Oral reading fluency
- Vocabulary
- Reading comprehension strategies
- Writing





ONE BIG CAVEAT



Limits of evidence-based teaching

- Evidence-based does not mean that something will work
- It only means that it has worked
- And accumulations of research mean that it has worked over and over
- There are no automatic gains in education
- Quality supervision, sufficient amounts of instructional time, high quality well prepared teachers, supportive parents, and our daily commitment to meeting the literacy needs of our students is needed to make any “evidence-based” approach work

Summary

- It is essential that we improve reading achievement
- The most certain and professional way to accomplish that goal is through a reliance on accumulations of the best existing research
- We need to teach PA, phonics, fluency, comprehension, and writing
- But evidence-based approaches give us no excuse to relax in our commitment to providing the most intensive and supportive teaching that we can provide