

# Scientifically-Based Reading Research

# Scientifically-Based Reading Research

- prevents the use of unreliable and untested methods that can actually impede academic progress
- makes teaching more effective, productive, and efficient
- can be better generalized and replicated across many sites



# Scientifically-Based Reading Research

- applies rigorous, systematic, and objective procedures to obtain valid knowledge relevant to reading development, reading instruction, and reading difficulties



# Scientifically-Based Reading Research

- employs systematic empirical methods that draw on observation or experiment;

# Scientifically-Based Reading Research

- involves rigorous data analyses that are adequate to test the stated hypotheses and justify the general conclusions drawn;



# Scientifically-Based Reading Research

- relies on measurements or observational methods that provide valid data across evaluators and observers and across multiple measurements and observations;  
*and . . .*

# Scientifically-Based Reading Research

- has been accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective and scientific review




# SBRR in a Nutshell

- Scientific method
  - Begins with hypothesis
  - Controls are used
  - Outcome proves or disproves the hypothesis
- Replicated – Repeat studies find the same results



# SBRR in a Nutshell

- Generalized – Study findings represent truth for the general population.
- Meets Rigorous Standards – Methods and conclusions must be confirmed by peer review.
- Convergent findings – Conclusions are in line with findings from other studies.



# **Scientifically-Based Reading Instruction**

# Scientifically Based Reading Instruction

- ❖ Instructional Content
- ❖ Instructional Design
- ❖ Reading Framework



# Instructional Content

- Scientifically based reading instruction includes explicit and systematic instruction in the following:
  - Phonemic Awareness
  - Phonics
  - Fluency
  - Vocabulary
  - Comprehension



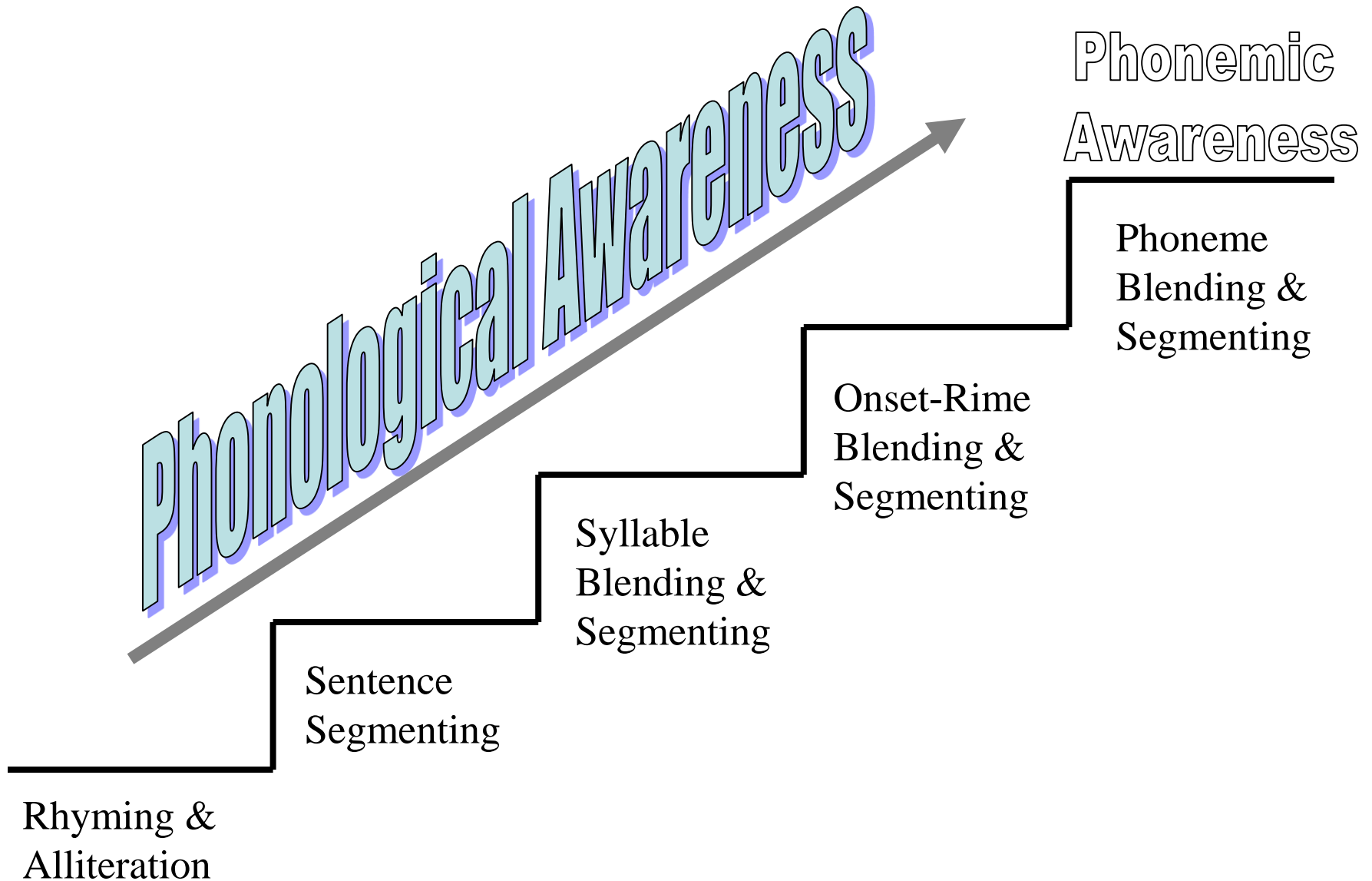
# Phonemic Awareness

Phonemic awareness is the ability to hear, identify, and manipulate individual sounds in spoken words

(Torgesen, 1998).



# Phonological Awareness Instruction





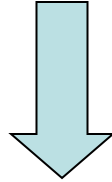
# Phonics

An understanding of the alphabetic principle—the relationship between phonemes (sounds) and graphemes (letters).

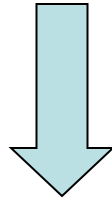


# Phonics Instruction

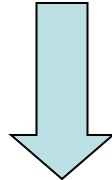
Teach letter-sound correspondences in isolation



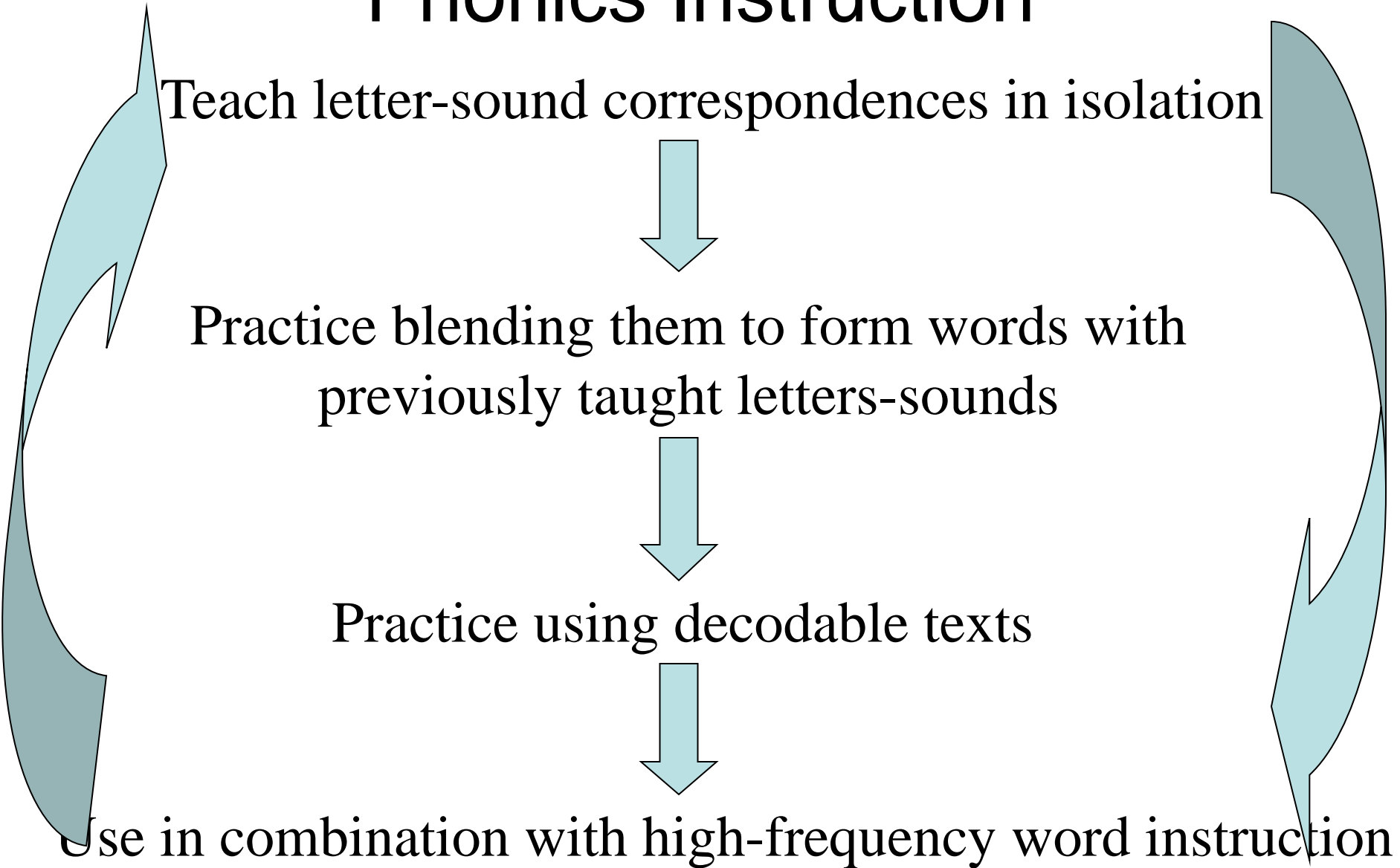
Practice blending them to form words with previously taught letters-sounds



Practice using decodable texts



Use in combination with high-frequency word instruction and apply letter-sound knowledge to word study strategies



# Fluency

- The ability to read text
  - quickly,
  - accurately,
  - and with proper expression

(NRP 2000).





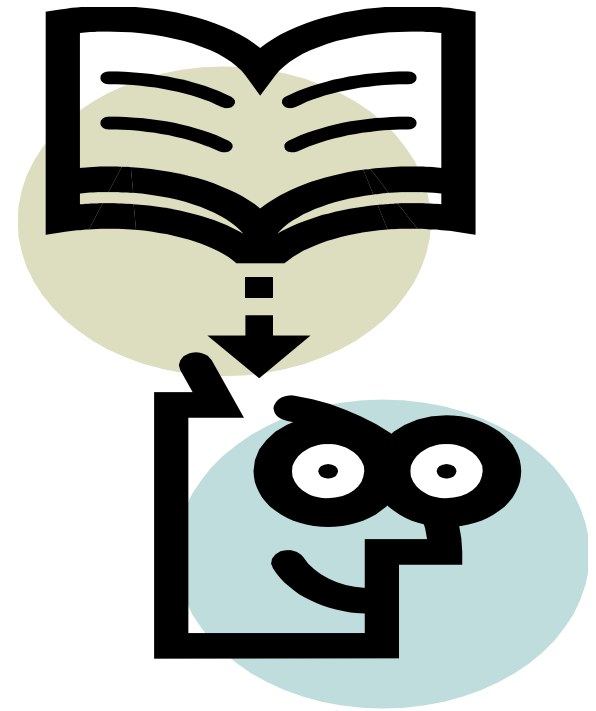
# Fluency Instruction

- Modeling
- Reading Levels
- Oral reading with feedback
- Monitor fluency progress
- Variety of research based strategies
  - Repeated Readings, Timed, Partner

***\*Be sure students are reading both automatically and with prosody.***

# Vocabulary

- The knowledge of the meanings and pronunciation of words that are used in oral and written language.



# Vocabulary Instruction

- Directly

- Teach word learning strategies
- How to use word parts to determine meaning of words

- Indirectly

- Provide multiple exposures to words
- Encourage independent wide reading



# Comprehension

- The ability to make sense of text and to monitor for understanding.



# Comprehension Instruction

- Monitoring comprehension (promoting metacognition)
  - Main Idea, Summarizing, Draw Conclusions
  - Predicting
  - Visualizing
  - Asking Questions
  - Monitoring and Clarifying
  - Infer
  - Look-backs, rereads, fix-it
  - Evaluate/Synthesis
- Using graphic and semantic organizers
- Text Structure/Text Organization
  - Narrative and expository text

# Scientifically Based Reading Instruction

- ✓ Instructional Content
- ☐ Instructional Design
- ☐ Reading Framework

# Instructional Design

- Thoughtful attention to the process of instruction is necessary for early literacy instruction to be effective. In other words, instructional practices, or, the 'how' of instruction is as important as the 'what'.





# Instructional Design

- In order to effectively teach all children to read the following must be present:
  - explicit instructional strategies
  - coordinated instructional sequences
  - ample practice opportunities
  - aligned student materials

# Explicit Instruction

1. Teacher Models and Explains
2. Teacher provides Guided Practice
  - Students practice what the teacher modeled and the teacher provides prompts and feedback
3. Teacher provides Supported Application
  - Students apply the skill as the teacher scaffolds instruction
4. Independent Practice

# An Example of Coordinated Instructional Sequences:

- **Phonemic Awareness:**

*Students practice orally segmenting and blending words with /m/;*

- **Phonics:**

*Students learn to connect /m/ with the letter, m;*

- **Fluency: (at the word level)**

*Students read word lists that include words that have /m/ and other previously learned letter sounds;*

*Students read decodable passages (using repeated readings) that include many words with /m/*

# Instructional Sequences, Cont.

- **Comprehension:**

*Students read passages that contain words that begin with the letter m, and use cross-checking to derive meaning from text.*

- **Spelling:**

*Students work with words that include the letter m and other letters previously learned.*



# Aligned Student Materials

- Materials work coherently with classroom instruction to reinforce the acquisition of specific reading skills.
- Student aligned materials provide a range of levels to assist students as they build and refine skills through practice.



# Scientifically Based Reading Instruction

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## Instructional Content

- Phonemic Awareness
- Phonics
- Fluency
- Vocabulary
- Comprehension



## Instructional Design

- Explicit Instructional Strategies
- Coordinated Instructional Sequences
- Ample Practice Opportunities
- Aligned Student Materials



# Scientifically Based Reading Instruction

- ✓ Instructional Content
- ✓ Instructional Design
- ☐ Reading Framework

# Question:

*How will students receive high-quality, explicit, and systematic instruction in the reading classroom?*

# Reading Instruction in the Classroom

- **Characteristics:**
  - Dedicated time for reading instruction
  - Whole group and small group differentiated instruction driven by multiple assessment data points
  - Intensive intervention driven by multiple assessment data points



# Initial Instruction

- ***Whole group instruction***
  - *Exposes all children to grade level material. A common text creates opportunities for think alouds and teacher modeling of appropriate strategies.*
  - *Instructional strategies appropriate for whole group instruction include: interactive read aloud, shared reading, phonemic awareness, explicit and systematic phonics and word study, vocabulary, and comprehension instruction.*

# Differentiated Instruction

- ***Small group instruction***
  - *Initial whole group instruction connects meaningfully to differentiated instruction*
  - *Student placement in groups is flexible and based on need; different curricula/resources may be in use to instruct these different groups.*
  - *Active student engagement in a variety of reading-based activities, which connect to the five essential components of reading*

# Intensive Intervention

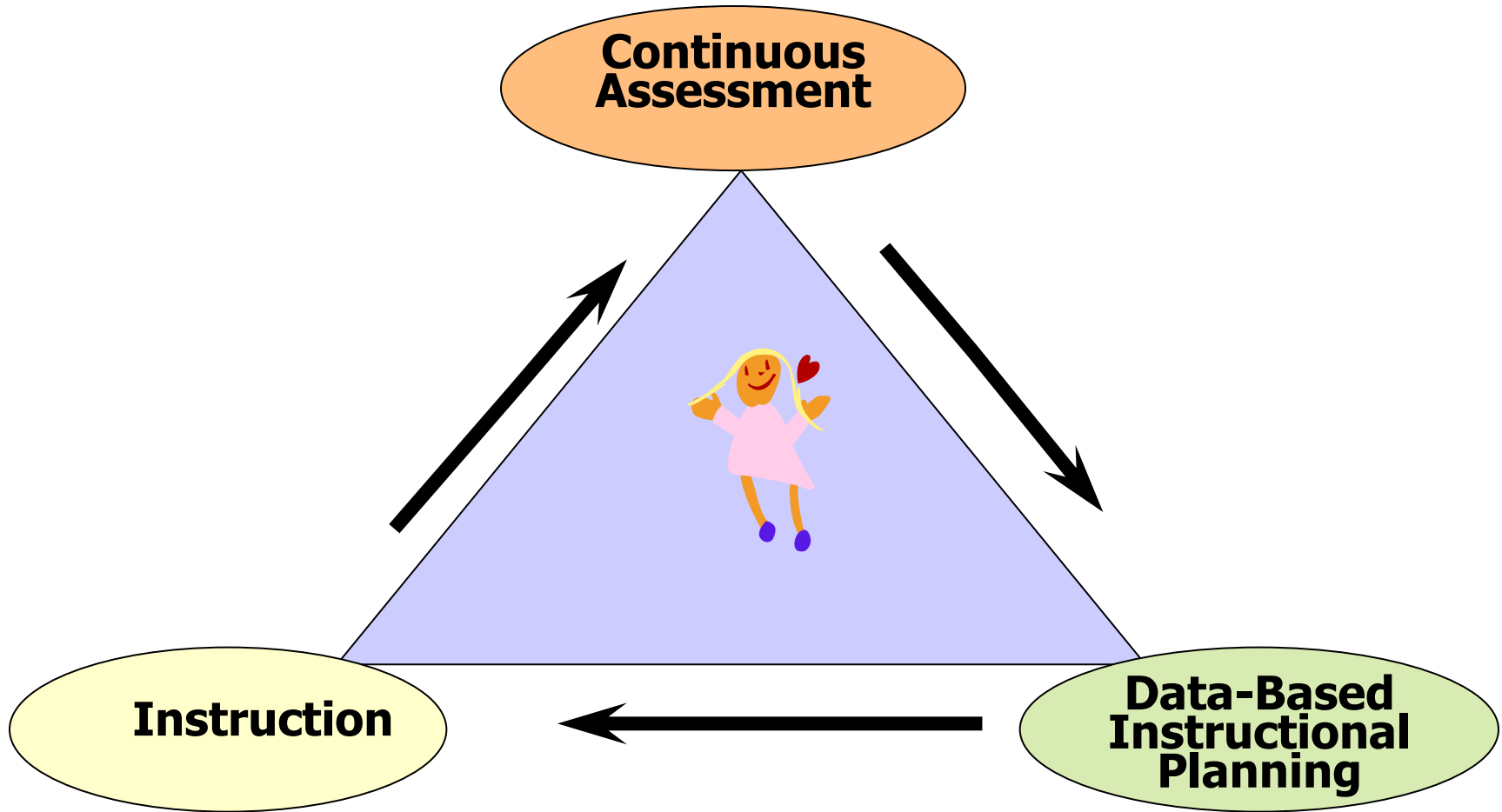
- ***“Smaller” group instruction***
  - *Students continuing to show a deficit according to progress monitoring need to be given more frequent progress monitoring, and potentially a diagnostic assessment to determine the specifics about the deficit*
  - *Teacher provides immediate intensive intervention driven by the ongoing progress monitoring/diagnostic assessment, more targeted to student needs.*
  - *Provide explicit and systematic instruction with more detailed explanations and more extensive opportunities for guided practice, and more opportunities for error correction and feedback.*
  - *Smaller group size*
  - *More time, more frequent (e.g. daily)*

# **Classroom Organization for Differentiated Instruction/Intensive Intervention**

- ***Teacher-Led Center***
  - *Small group differentiated instruction targeting student needs*
- ***Student Centers***
  - *Academically engaged*
  - *Accountability*
  - *Group, Pair, Cooperative, Individual*

# Model for Student Success

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# Scientifically Based Reading Instruction

- ✓ Instructional Content
- ✓ Instructional Design
- ✓ Reading Framework

# ***QUESTION:***

**What are the roles and responsibilities of administrators in supporting the implementation of reading instruction and intervention in the classroom?**

# Roles and Responsibilities of Administrators

- *Make reading a priority*
- *Schedule dedicated reading time*
- *Ensure each reading classroom includes:*
  - *five components of reading*
  - *three types of assessment*
  - *whole group initial instruction, small group differentiation, and intensive intervention*
- *Schedule resources and personnel in order to maximize instructional capacity*

# **Roles and Responsibilities of Administrators**

- *Coordinate assessment process*
- *Provide professional development opportunities*
- *Provide necessary materials*
- *Be an informed instructional leader*
- *Frequently monitor reading instruction*

# Reading Research



# Comprehension Instruction

**Research-Based Best Practices**



**second edition**

Edited by  
**Cathy Collins Block**  
**Sheri R. Parris**



rethinking  
reading  
comprehension

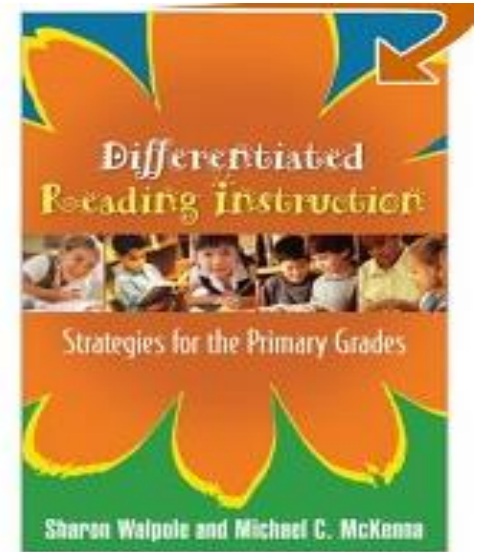
*edited by*  
ANNE POLAKELI SWEET  
CATHERINE E. SNOW



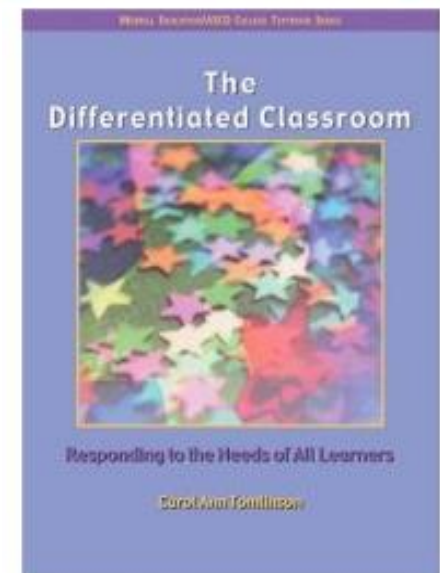
# A few resources for teachers on differentiated instruction

## **Differentiated Reading Instruction: Strategies for the Primary Grades**

by Sharon Walpole and  
Michael McKenna:  
Guilford (2007)



**The Differentiated Classroom :  
Responding to the  
Needs of All Learners**  
by Carol Ann Tomlinson:  
ASCD (1999)






**HOW TO**  
Differentiate Instruction  
**IN** Mixed-Ability  
Classrooms

**Carol Ann Tomlinson**

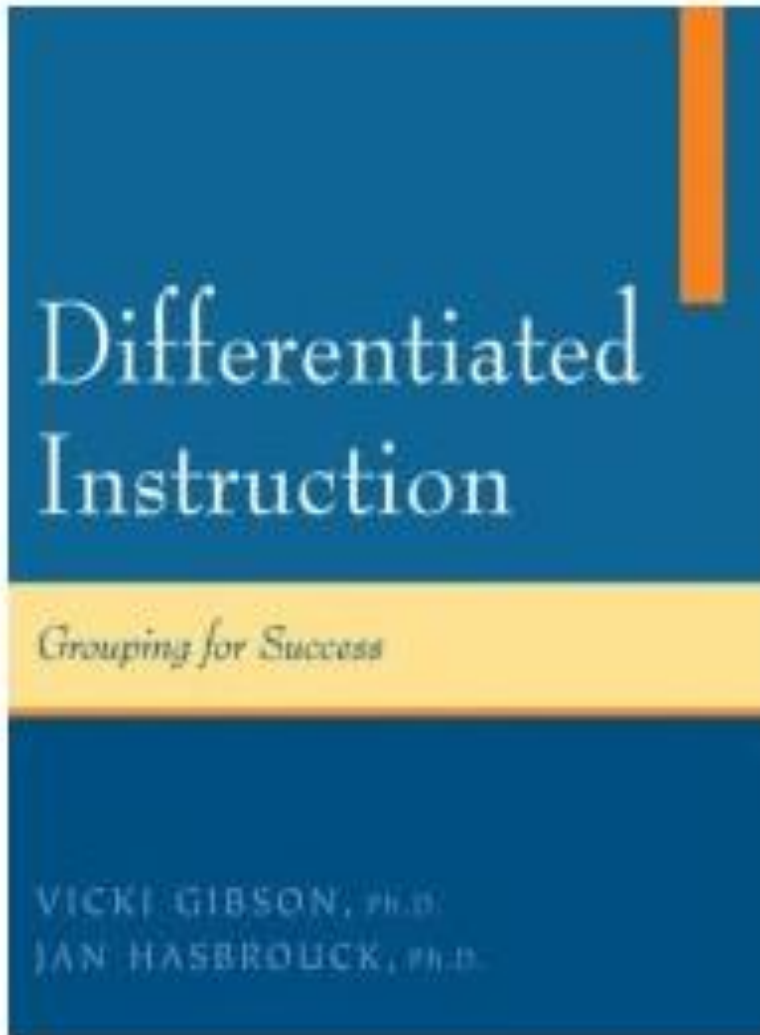
**2ND EDITION**

A butterfly with yellow and black wings is perched on the palm of a hand. The background is a warm, reddish-orange gradient with faint, concentric circles and a grid pattern.

# Fulfilling <sup>THE</sup> Promise OF THE Differentiated Classroom

*Strategies and Tools for  
Responsive Teaching*

Carol Ann Tomlinson

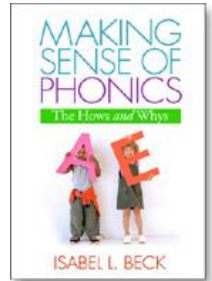


- Differentiated Instruction: Grouping for Success  
Gibson and Hasbrouck:  
McGraw-Hill Higher Education (2008)

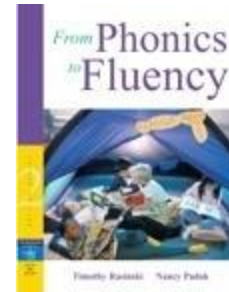


# Additional Books for Instructional Ideas

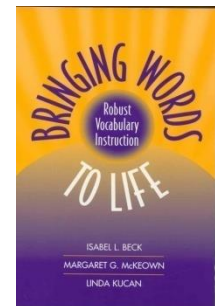
Making Sense of Phonics: The Hows and Whys  
Isabel Beck: Guilford (2006)



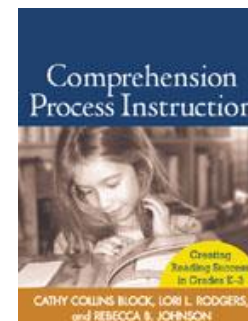
From Phonics To Fluency: Effective Teaching of Decoding and Reading Fluency in the Elementary School  
Rasinski and Padak: Prentice Hall (2008)



Bringing Words to Life: Robust Vocabulary Instruction  
Beck, McKeown, & Kucan: Guilford (2002)



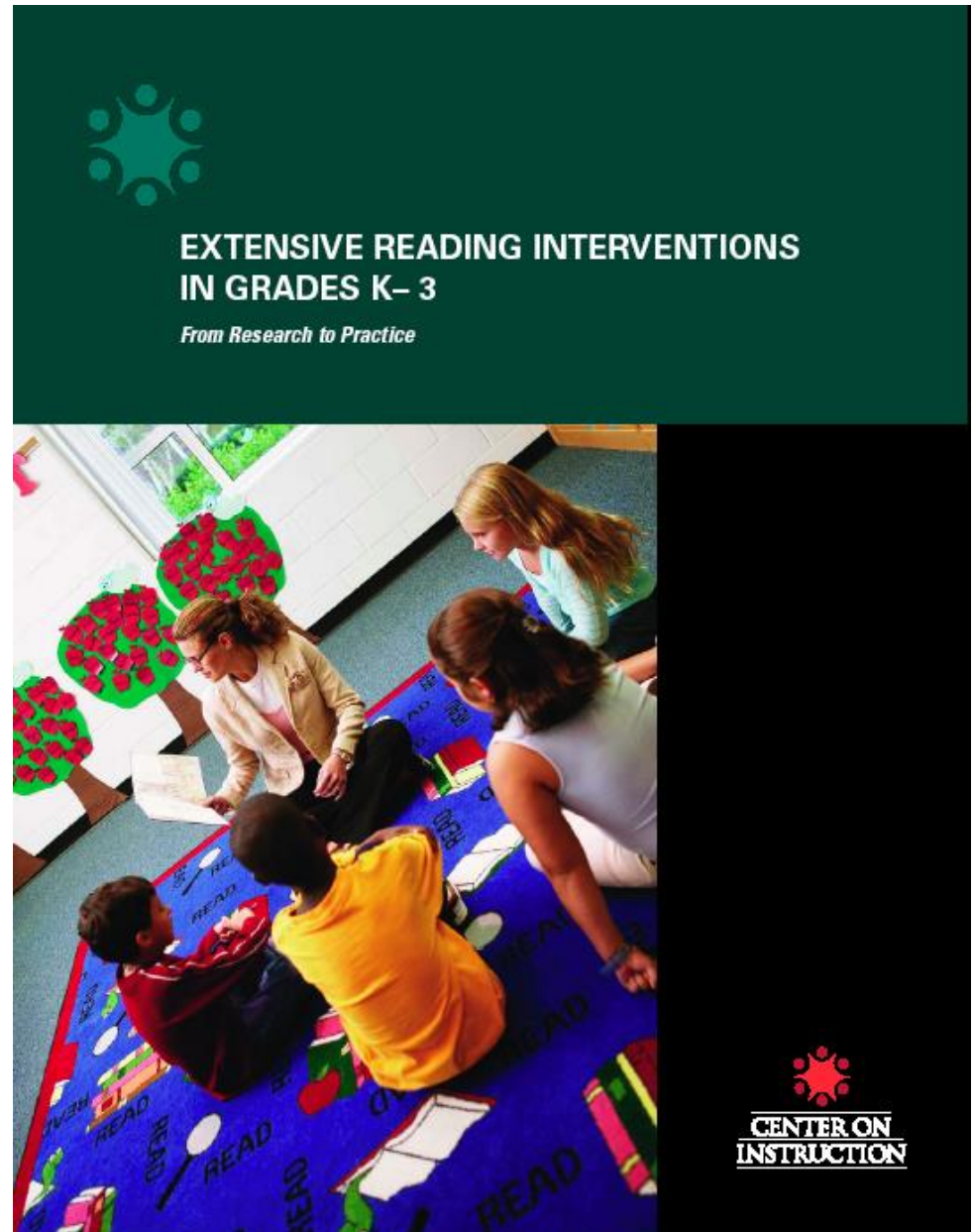
Comprehension Process Instruction: Creating Success in Grades K-3  
Block, Rogers, & Johnson (2004)



[www.centeroninstruction.org](http://www.centeroninstruction.org)

- Reading
- Special Education
- ELL

Scammacca, N., Vaughn, S., Roberts, G., Wanzek, J., & Torgesen, J. K. (2007)



# DOING WHAT WORKS

- **Research-Based Practices Online**
  - **Literacy (<http://dww.ed.gov/>)**
    - ✓ Improve literacy instruction for your students.
      - [Preschool Language and Literacy](#)
      - [Improving K-3 Reading Comprehension](#)
      - [Teaching Literacy in English to K-5 English Learners](#)
      - [Response to Intervention in Primary Grade Reading](#)
      - [Adolescent Literacy](#)



# CONTACT

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