Question for You

What are your **three** big teaching challenges in meeting the needs of all the children in your classroom?

Teaching All Kinds of Learners

Strategies to effectively reach all students

Agenda

- Introductions
- Why we're here
- Three Key Principles
- The Reading Pie
  - Decoding Instruction
  - Comprehension Instruction
- 10 min Break
- Math Instruction
- Mindsets
- Conclusion – review and resources

Introductions

- The Reading Clinic
  - Hello - Heather Gipson
  - Who we are and what we do

- Today's presenters
  - Beth Powell
  - Anne-Marie Becker
  - Lynne Baldwin

Why we're here

- Add to your repertoire of teaching strategies
- Provide strategies to work smarter, not harder
- Create space for all of you to share your expertise

Setting the Stage

Quick review of your responses to the question:

What are the thee biggest teaching challenges you face meeting the needs of all the children in your classroom?

Three Instructional Principles

- Research shows that three fundamentals for teaching raise the success of reaching all learners

  Instruction needs to be three things:

  1. **Systematic and structured**
  2. **Multi-sensory, and**
  3. **Direct**

  Let's look at what is meant by each one in turn in the context of teaching reading …

What is meant by systematic structured instruction?

- Systematic structured lessons are:
  - carefully planned and sequenced
  - built on previously taught information
  - designed to move from simple to complex
  - guided by clear explicit student objectives
  - guided by ongoing assessment

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What is meant by multi-sensory instruction?

- Key Ideas:
  - All learning pathways in the brain (visual, auditory, and kinesthetic-tactile) are used to bolster memory and learning
  - We teach to each students way of learning best
- Decoding - letter-sound relationships
- Comprehension – picture/share/act
- Math – play/imagine/paper

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What is meant by direct instruction?

- A direct instruction model for teaching emphasizes:
  - carefully planned lessons
  - small learning increments
  - clearly defined teaching objectives
  - activities designed to meet the objectives

- The teacher balances guided discovery and explicit instruction (this is a daily and lifetime journey in practice…)

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What is meant by direct instruction? (cont)

- The Teacher uses Socratic questioning to help shape her students' responses

- The teacher provides immediate feedback that
  - authentically acknowledges and praises correct facets of a student's response
  - guides student to consider and use what she knows to alter errors in her response

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The Reading Pie

The National Reading Panel identified five components—phonemic awareness, phonics, fluency, vocabulary, and comprehension—as necessary for effective early reading instruction.

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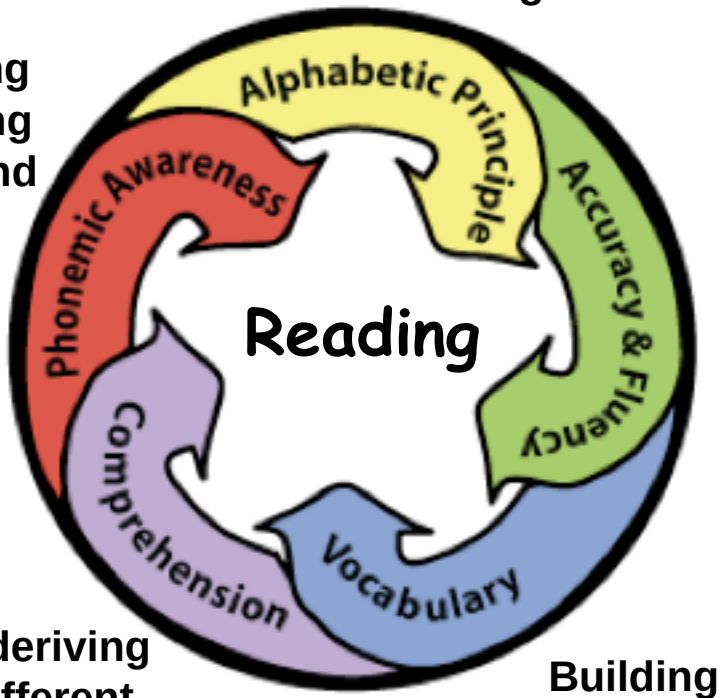
Pieces of the Reading Pie

Learning that spoken sounds (phonemes) are represented in print by written symbols (letters); these are organized in patterns

Developing understanding about spoken words being composed of bits of sound - phonemes



Developing automaticity in rate and accuracy for reading text

Gaining skill in deriving meaning from different types of written content

Building one's lexicon of words and their meanings

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The Goal is Literacy

- Inter-relatedness of language skills
  – a literate person is distinguished by their skill in reading, by how well they write and speak, and even how they listen

- Direct teaching coupled with small-group discussion is a vital component of language arts instruction

- Recording and tracking of skills is a must

- Students actively involved in learning process to understand language content, structure, and process will become better readers, writers, speakers, and listeners – and hence better thinkers!

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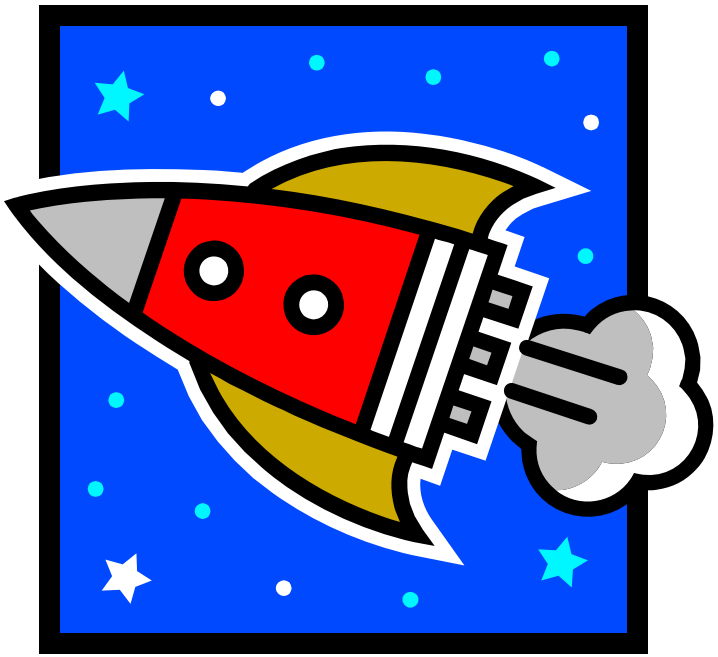
Reading is Rocket Science



Learning to Read Words: Keys to Effective Instruction

Twas brillig, and the slithy toves
Did gyre and gimble in the wabe:
All mimsy were the borogoves,
And the mome raths outgrabe.

(from *Through the Looking-Glass and What Alice Found There*, by Lewis Carroll, 1872)

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Struggling to ‘crack the code’

Take a few moments to familiarize yourself with this phoneme translation key. Then use it to read the passage that follows.

Phoneme translation key:

When you see:	Pronounce as:
q	/d/ or /t/
z	/m/
p	/b/
b	/p/
ys	/er/
a	e (as in ‘pet’)
e	a (as in ‘bat’)

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Struggling to ‘crack the code’ (cont)

Now try to read this passage:

Wa pegin our qrib eq a faziliar blace, a poqy like yours enq zine. Iq conqains a hunqraq qrillion calls qheq work qogaqhys py qasign.

Teach Students to ‘Crack the Code’

- Phonemic awareness - knowledge that spoken words are made up of tiny segments of sound, referred to as phonemes.
  e.g., “it" and “ouch" each consist of two phonemes
  .
- Phonics refers to the process of linking these sounds to the symbols that stand for them, the letters of the alphabet.

- Research conclusively shows that teaching children explicitly and systematically to manipulate phonemes significantly improves their reading and spelling abilities.
  The evidence for this is so clear cut that this method should be an important component of early reading instruction.

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Teach Students to ‘Crack the Code’

- Phonemic awareness can be taught – it is an oft overlooked component in language arts curriculum
- Decoding & spelling are linked; can teach these in parallel
  - If a child cannot read a word, he should not expected to spell it.

- Systematic phonics instruction can be done such that it is engaging, creative, and fun

- Application of phonics skills to text and development of fluency are essential skills to teach as well

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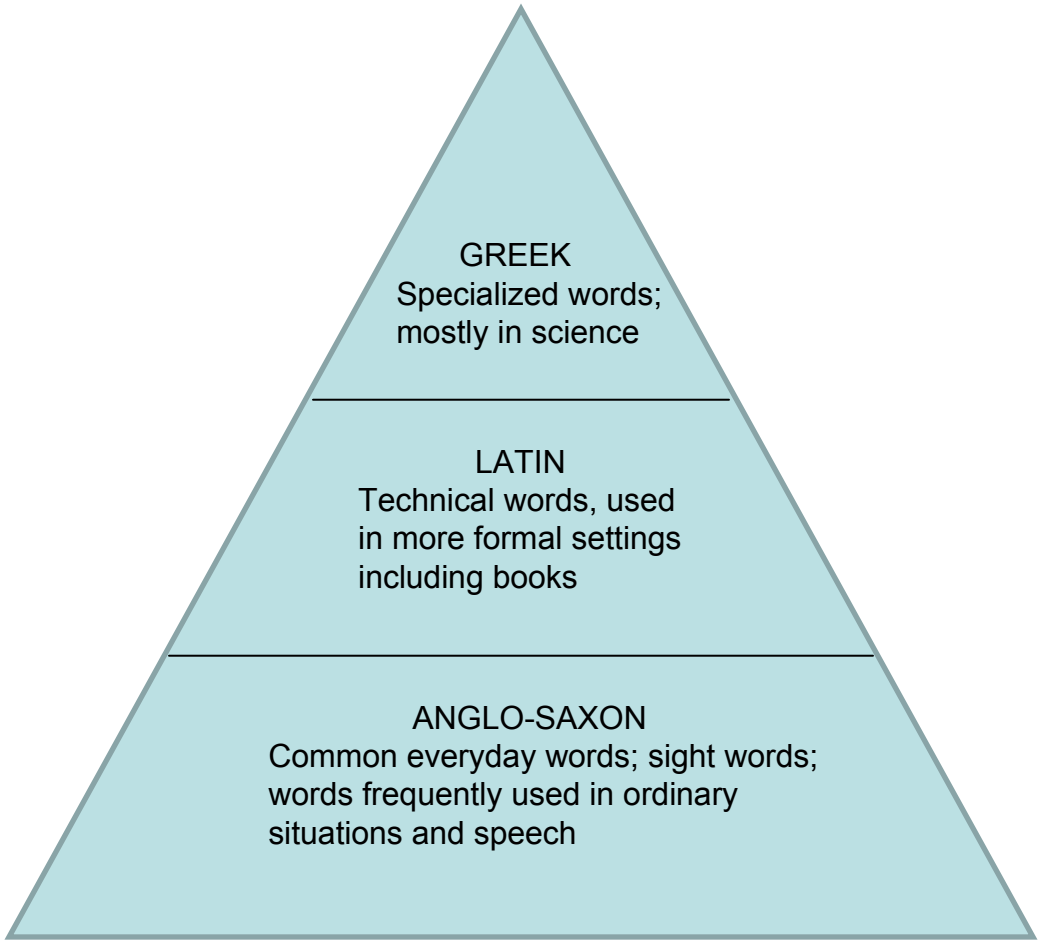
English Language in Historical Layers



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Quick Word History Lesson

What is the historical origin of the word '**School**'?

Is it Anglo-Saxon, Latin, or Greek?

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Word Origin and Structure Matrix

	Letter-Sound Correspondences	Syllables	Morphemes
Anglo-Saxon	Consonants: bid, step, that Vowels: mad/made, barn, boat	Closed: bat Open: baby VCE: made Vowel digraph: boat Consonant-le: tumble r-controlled: barn	Compounds: hardware, shipyard Affixes: read, reread, rereading; bid, forbid, forbidden
Latin/Romance	Same as Anglo-Saxon but few vowel digraphs Use of schwas /a/ sound: direction, spatial, excellent	Closed: spect VCE: scribe r-controlled: port, form	Affixes: construction, erupting, conductor
Greek	ph for/f/ as in phonograph ch for /k/ as in chorus y for /i/ as in sympathy	Closed: graph Open: photo Unstable digraph: create	Compounds: microscope, chloroplast, physiology

Source: Unlocking Literacy: Effective Decoding & Spelling Instruction by Marcia K. Henry

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Musts to learn to Decode & Encode

- Categories of letter-sound correspondences
  - Forty phoneme sounds & their representation in print (only 26 letters)
- High-frequency non-phonetic words (e.g., *who, come, should*)
- How to divide words into syllables based on common syllable types
- Morpheme patterns – compound words, affixes, and roots
- Rules for the written form of the English language
- An understanding of the history of written English

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Phonemic Awareness Activity

Guess Who

- Objective: Introduce two key concepts
  - how phonemes sound when spoken in isolation
  - phonemes are parts of words
- Activity
  - Children sit in a circle.
  - T says “Guess whose name I’m going to say?” T picks a name.
  - For names with stop consonants like ‘Dick’, T says over and over “ /d/, /d/, /d/, /d/…”
  - For names with continuant consonants like ‘Sam”, T should stretch out initial sound and repeat “/s-s-s-s-s/, /s-s-s-s-s/, /s-s-s-s-s/,…
  - Children try to guess the name that T is thinking of. If more than one child’s name has the same initial sound, encourage the children to guess all the possibilities

Source: *Phonemic Awareness in Young Children* by Adams, Foorman, and Beeler

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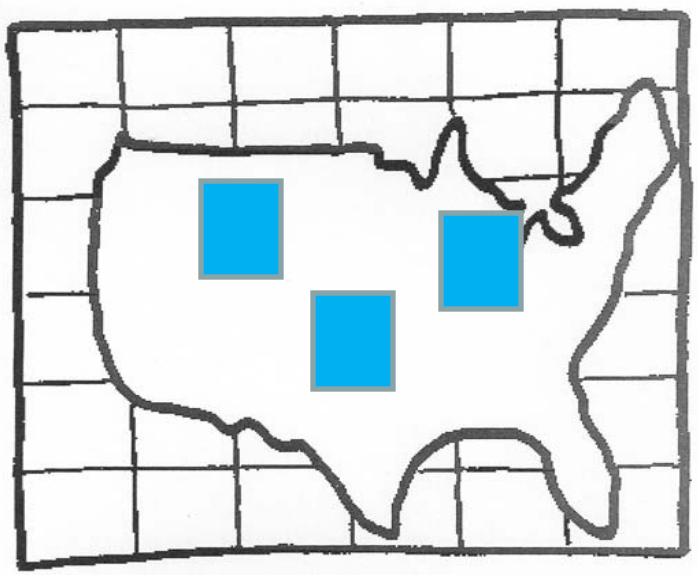

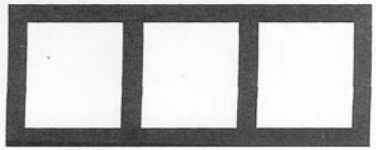

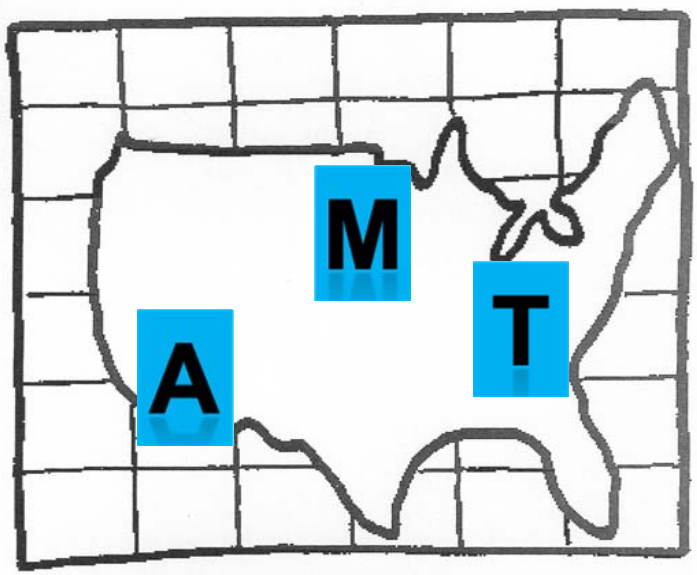

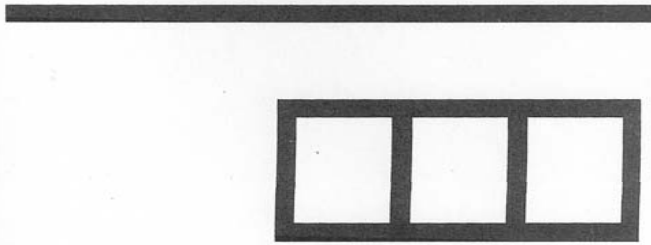

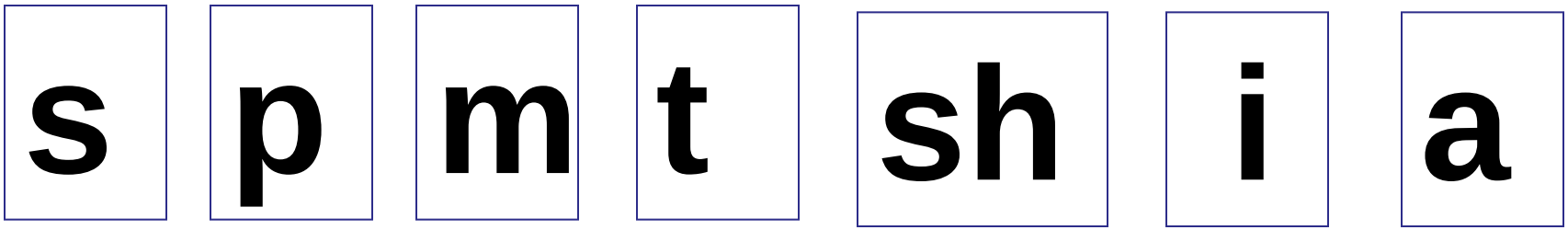
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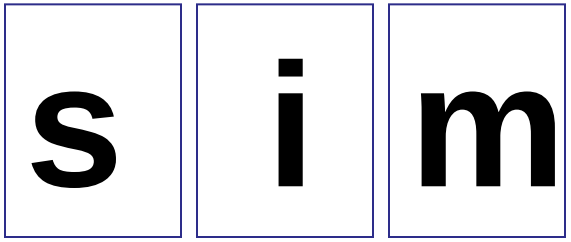
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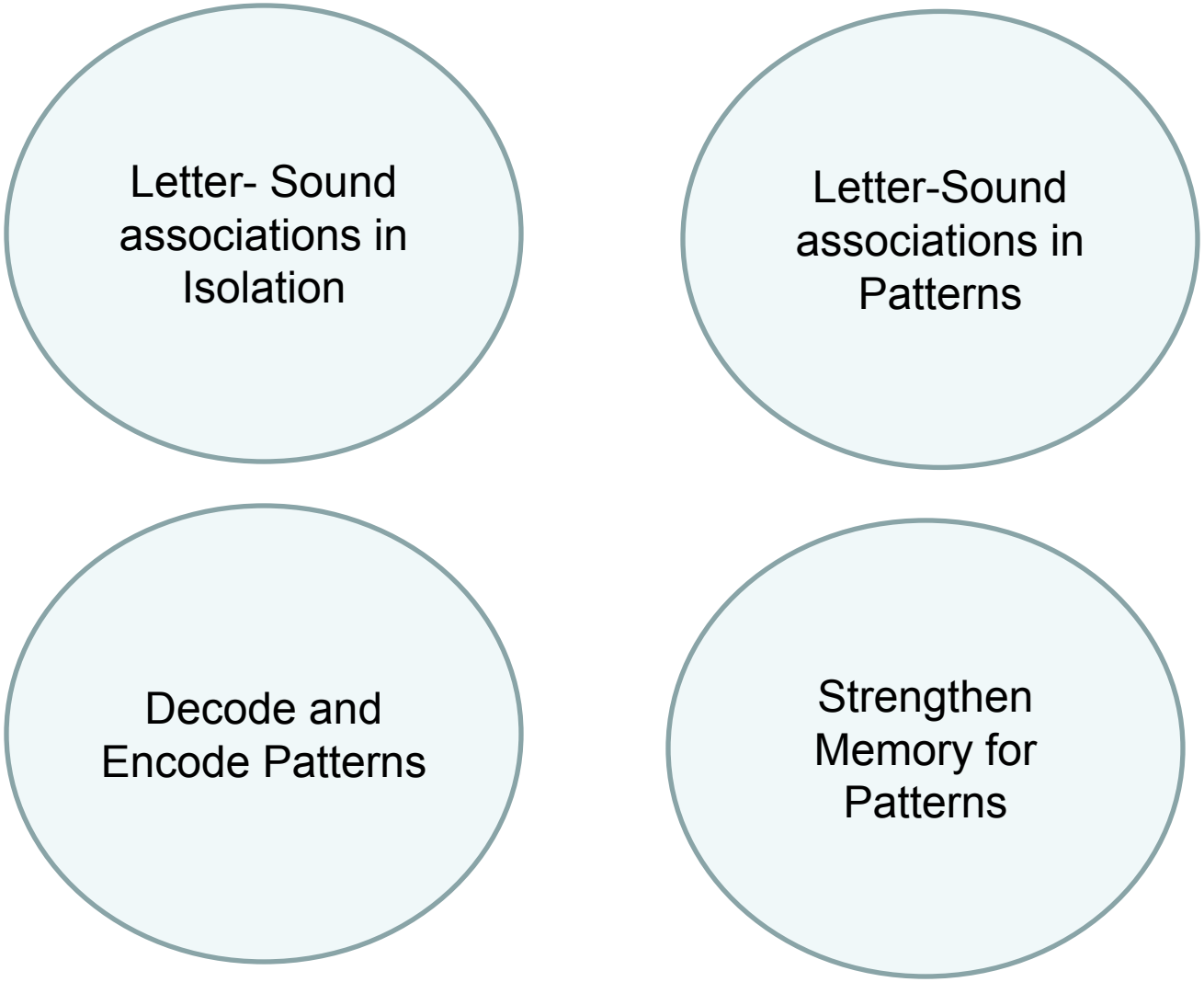
Decoding-Encoding Lesson Parts



Comprehension Instruction

Using Visualization Strategies to Enhance *All* Students' Comprehension

Can Comprehension Be Taught?

- Large body of research indicates that students can be taught the strategies and processes of good readers
- Instruction improves overall comprehension
- Large number and range of techniques
- Teaching one technique alone shown to increase comprehension

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Balanced Instruction

- Explicit strategy instruction
- Adequate instruction time in all literacy tasks
- Authentic *and* varied texts
- Vocabulary and concept development through reading, experience, and *discussion*
- High quality teacher-to-student and student-to-student talk

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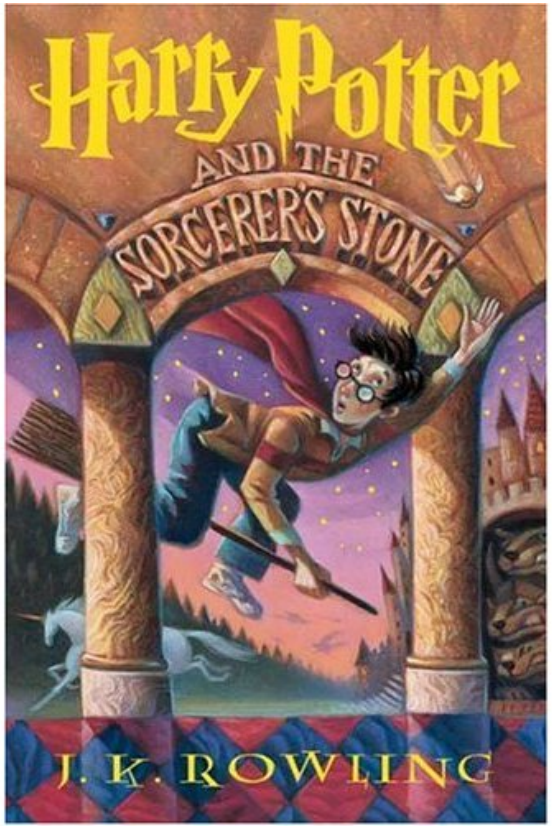
Instructional Model

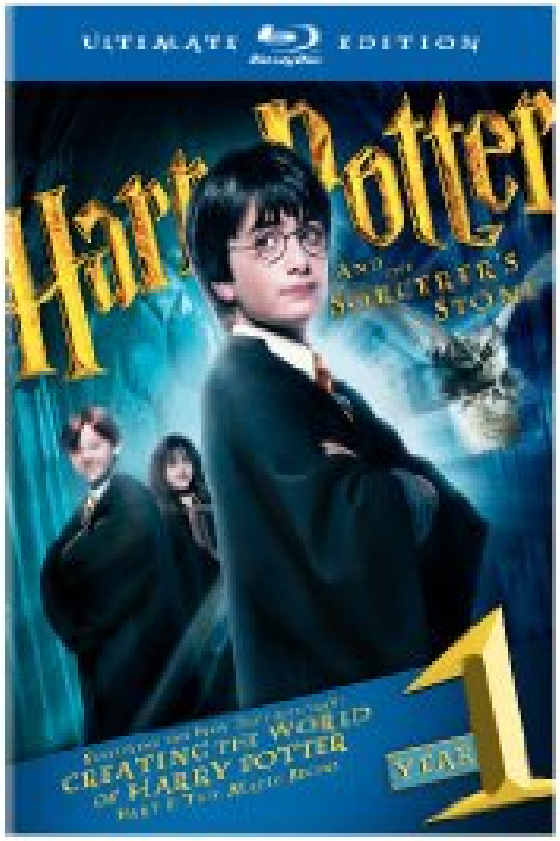
- Explicit strategy description
- Modeling
- Guided practice
- Independent practice

Creating Mind Movies

- Read the Book



- See the Movie



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Visual Model

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Introducing the Process Game

- Describe a photograph

- **Need two volunteers to stand facing the windows**

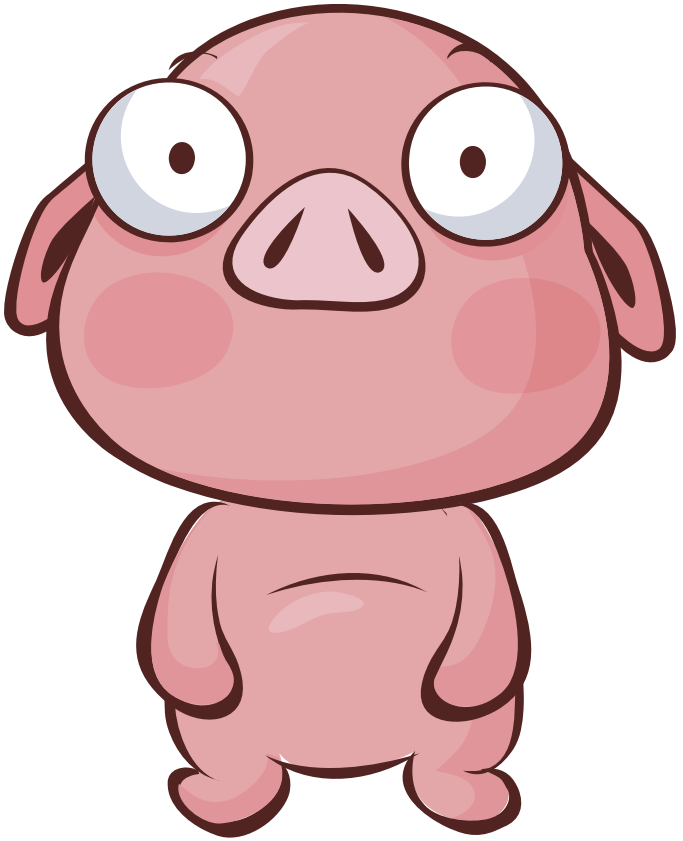
Describing a Picture

- **What**
- **Size**
- **Color**
- **Number**
- **Movement**
- **Where**
- Shape
- Mood
- Background
- Perspective
- When
- Sound

(Adorable) Pig Monster by Matthew Inman

Which one is it?

(Adorable) Pig Monster by Matthew Inman



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Picturing Text

- Creating Pictures for Text
  1. Create pictures
  2. Summarize pictures
  3. Summarize the story in your own words
  4. Create the main idea
  5. Answer higher order thinking questions (HOTs)

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Tiger Hunters

People who hunt tigers sometimes tie a goat to a wooden stake. They choose a place where a tiger will see or smell the goat. Then the hunter runs to a nearby tree until the tiger comes to kill the goat. Then the hunter shoots the tiger.

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Important Details

What	**Size**	**Color**
Number	**Movement**	**Where**
Shape	Mood	Background
Perspective	When	Sound

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Main Idea Scaffolding

WHO/WHAT	ACTION	SO WHAT?
The hunter	Uses a goat to lure a tiger	so that he can kill the cat.

The hunter uses a goat to lure a tiger so that he can kill the cat.

Practice

1. Build pictures
   - Question using “open ended” questions or “choice/contrast” questions
2. Picture Summary
3. Word Summary
4. Main Idea
5. HOTs

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Jack-O-Lantern Hunt

Jack walked along a row of fat pumpkins on the ground. He found one that was bright orange, round, and smooth. Jon smiled as he thought about the face he would carve into it.

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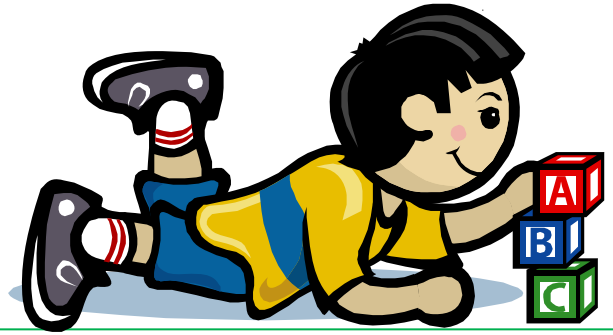
What works, what doesn't?

- Classroom application
- What could you do?
- What would be an obstacle?
- What's a solution?



Let’s take a Bio-Break

10 minutes

Mathematics

- Math is a multisensory process
- Computation and conceptualization are fundamental and distinct skills
- Addition and multiplication are different
- Fluency is more important than automaticity
- “Simple” concepts have layers of scaffolding
  - Your students will help you discover them!

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Multisensory Mathematics

Classroom Method		*1-1 Multisensory Method*
math on paper write a sentence	symbolic	math on paper
	verbal	talking through process
draw picture on paper	visual	imagining manipulative
manipulative	concrete	manipulative

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Concept and Computation

- Understanding ≠ Remembering
  - You can understand that addition is combining sets and not remember the addition facts

- Remembering ≠ Understanding
  - You can know the multiplication facts but not know how to apply them

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Addition and Multiplication

- Both supported by a broad and similar neural system
- Addition – relies more on visual-spatial processing
- Multiplication – relies more on verbal processing

- *Dissociated brain organization for single-digit addition and multiplication.* (Zhou 2006)

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Fluency

- conceptual understanding
- accurate recall
- varied strategies
- multiple representations of facts
  - 3 X 4=**?**
  - 3 X **?** =12
  - 12 = **?** X **?**
- fast enough to maintain working memory

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Why Fluency?

- Values problem solving and memorization equally
- Frames learning as potential growth instead of a single destination
- Students who struggle with memorization discover other strengths
- Students who memorize easily discover other areas to develop

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Doubles and Doubles Plus One

- Great strategy
- Seems like a simple idea
- May require scaffolding

4+4=8	4+5=9
Doubles	Doubles + 1

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Doubles and Doubles Plus One

- Doubles - two of the same number added together

- Doubles + 1 = neighbors on the number line
  - doesn't matter which one comes first
  - 4+5, 7+6 are doubles + 1

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Thought Process

4+5=

- Are they doubles?
- Are they neighbors?
- Which number is smaller?
- Double that number
- Add one
- What is 4+5?

Mindsets

Mindsets: Core Beliefs That Impact Learning

- Our beliefs about our intelligence can have dramatic positive or negative affects on what we try to learn and whether we persevere

- Brain research over the last decade shows that our brains are not fixed in terms of capacity for learning but rather they have ‘neuro-plasticity’ i.e., throughout our lives, with learning, our brains form new neural connections

- When we practice and learn new skills, the areas of the brain responsible for those skills become larger and denser with neural tissue; and the new areas of the brain become active when performing related tasks.

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Mindsets

- Everyone has two basic mindsets about how they see themselves in terms of having intelligence
- These two mindsets shape a person's
  - Goals
  - Attitudes
  - Relationships

- One mindset leads to a more positive 'trajectory' for learning – and for teaching – and the good news is: it can be taught!

So what are these two mindsets? …

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Mindset Type: Fixed

- Intelligence is a fixed trait

  You believe that you are either smart at something or you are not.

- What Fixed Mindset Students Think and Say:
  - **Looking smart is most important**
  - **"The main thing I want to do when I do my school work is to show how good I am at it."**

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Mindset Type: Growth

- Intelligence is a malleable property, a potential that can be developed

  You believe that with effort and despite setbacks, you will learn and grow.

- What Growth Mindset Students Think and Say?
  - **Learning is most important.**
  - **"It's more important for me to learn things in my classes than it is to get the best grades."**

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Praise can Hurt – or Help Performance

- Study of 5th graders by team at Stanford University (Dr. Carol Dweck)
  - Part One:
    128 students divided into two groups – each given a simple IQ test
    - One group told: "You did very well – you must be really smart."
    - Other group told: "You did very well – you must have worked really hard."
  - Part Two:
    Each student in each group asked if they'd like to take a slightly harder test
    - Most students praised for intelligence were reluctant to take the test
    - Most students praised for effort were willing and eager to take the test

Mindset and School Achievement

- Another Study: Transition to Jr. High
  - Large group of elementary school students transitioning to Jr. High School assessed for their primary mindset (Fixed/Growth)
  - Two Groups picked to track – both matched for similar records of elementary school academic achievement
    - Primarily Fixed Mindset (F-M) Group
    - Primarily Growth Mindset (G-M) Group
  - Achievement was tracked over the course of Jr. High

- Results:

  F-M students showed immediate drop-off in grades that persisted

  G-M students showed an increase in their grades over two years

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Quiz: Fixed or Growth Mindset Statements

- Wow Janet, you are so smart at doing math.
- If I know my students' intelligence, I can pretty much predict their school career.
- Billy's a natural at hitting a baseball.
- I know you did not do well on the math test but you tried hard – good for you. Let's see what you can learn from the mistakes you made.
- What happened on the test? Your usually so good at history.

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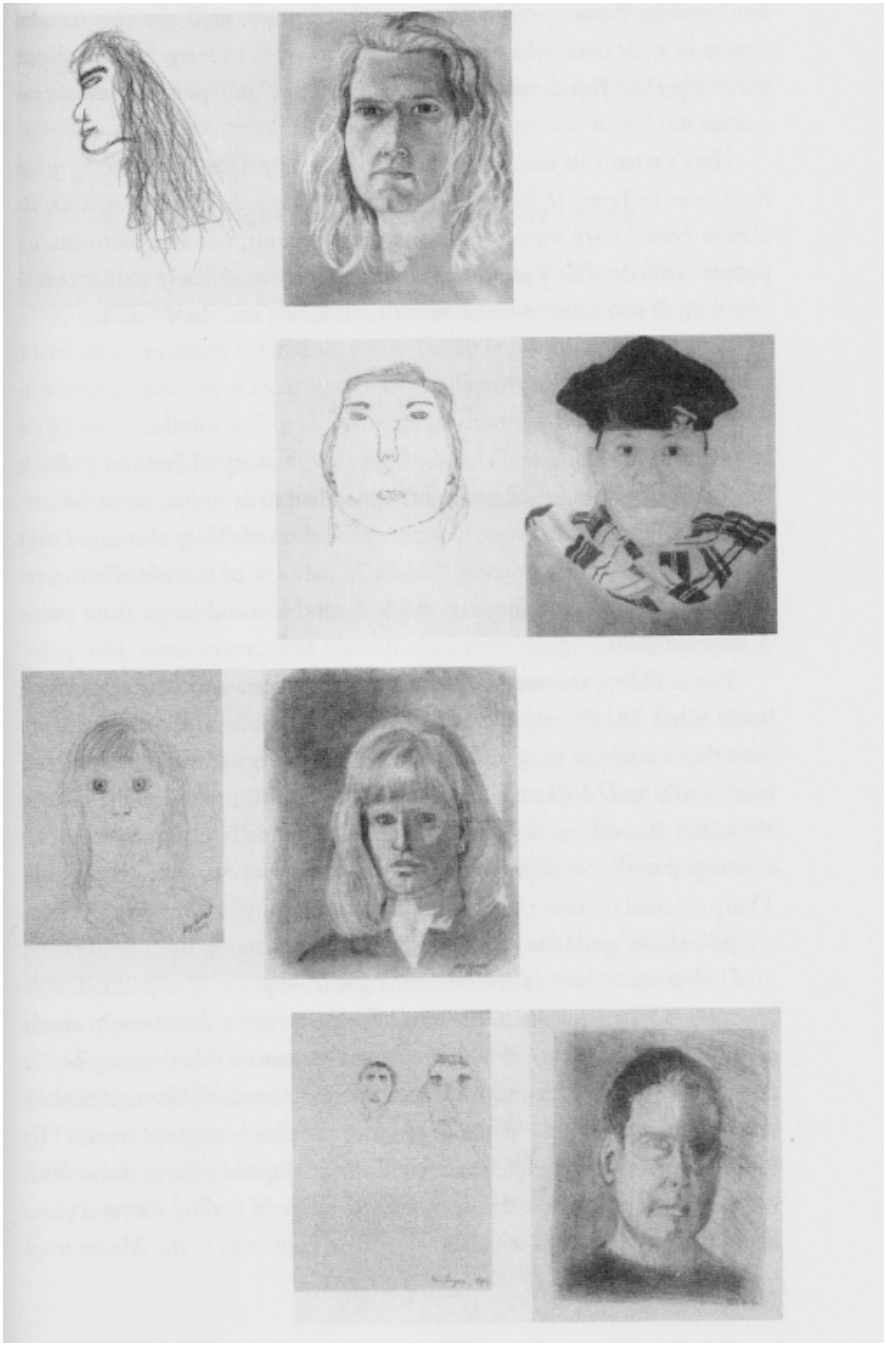
Before/After
Self Portraits



"Just because some people can do something with little or no training doesn't mean that others can't do it (and sometimes even do it better) with training."

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Summing up

- Plan and deliver classroom instruction that is:
  - Systematic and structured
  - Multi-sensory
  - Direct
- Foster a growth mindset
- Benefits for You
  - Being empowered
  - Reaching more children
  - Feeling fulfilled

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Summing up (cont)

What next:

- Associations and organizations – get involved
- Opportunities to learn/practice principles
- Formal training
  - Slingerland, Wilson, Lindamood-Bell or other structured, multi-sensory research-based methods listed by the IDA (Intl. Dyslexia Association)
  - Making Math Real
  - All Kinds of Minds (Mel Levine)

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Thank you for your attention and participation!

www.thereadingclinic.com

Best Wishes with Your Teaching Career!