Rigor, Relevance and Reading for Struggling to Average Readers

1. Building background knowledge
2. Rigor, Relevance and Learning strategies
3. Using the strategies

Agenda

Senior Consultant, ICLE

www.peterpappas.com

NCLB - a revolution in accountability

"Student achievement is primarily the function … background of the student." Jencks Report 1972

"… all children must reach … proficiency on challenging state academic assessments." NCLB 2001

Doug Reeves on “targeting success”

Robert Marzano:
What Works in Schools


The factors that impact student performance

1. Student: background knowledge, motivation, fluid intelligence, home environment
2. School: curriculum, learning environment
3. Teacher: learning strategies, management, goals and feedback

We’ll focus on factors you can “grow”

1. Student: background knowledge, motivation, fluid intelligence, home environment
2. School: curriculum, learning environment
3. Teacher: learning strategies, management, goals and feedback

The importance of background knowledge

- What students already know about a subject is one of the strongest indicators of how well they will learn new information relative to the subject
- Our focus is on academic background knowledge

A one-hour introductory workshop by Peter Pappas
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Listen, view and read: March On Washington 1963

Why is background knowledge important?

Auditory processing: skills to identify what’s said in the message and Background knowledge: that provides context

Students listen to an audio tape of King’s “I Have a Dream Speech”

Visual processing: skills to identify the elements in the image and Background knowledge: that provides context

I have a dream that one day this nation will rise up and live out the true meaning of its creed: “We hold these truths to be self-evident: that all men are created equal.”

I have a dream that one day on the red hills of Georgia the sons of former slaves and the sons of former slave owners will be able to sit down together at the table of brotherhood …

I have a dream that my four little children will one day live in a nation where they will not be judged by the color of their skin but by the content of their character.”

Text processing: skills to decode the text and background knowledge that provides context

From "I Have a Dream" Martin Luther King

“I don’t want to get educated.”

September 21, 1963

Background knowledge and Visual processing: That becomes more abstract with use of irony and exaggeration

How background knowledge impacts what we learn

Sensory Inputs (New information)

Working Memory (Processes new / stored information)

Background Knowledge (Stored information in Permanent Memory)

Factors that impact processing in working memory

Sensory Inputs (New information)

Working Memory (Processes new / stored information)

Background Knowledge (Stored information in Permanent Memory)

Fluid intelligence and academic experience impact growth of background knowledge

Academic experience

Fluid Intelligence

Low Medium High

High Robin Alejandro Zoe

Medium Jamal Tevin Pablo

Low Brittany Marquis Linda

Help students process information and build new background knowledge

Enhance the academic experience with effective learning strategies

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We’ll focus on three strategies
1. Define: what is this?
2. Summarize: what’s important?
3. Compare: how do things compare?

Define, Summarize and Compare can be viewed from four perspectives
1. Reading
2. Comprehension
3. Writing
4. Critical thinking

Vary the inputs / outputs – visual, auditory, text

Listening, visual, reading skills overlap
1. Identify details – groups of words, visual elements.
2. Recognizing context – where is this taking place, time period, who’s involved
3. Identify relationships – who are the people, what is the relationship between them.
4. Identify opinions – in the source information.
5. Infer meaning – the difference between literal information and what it means.
6. Make predictions – based on the information, what will happened next?

Rigor, Relevance, and Learning Strategies

They can be used at different levels of Bloom

Evaluation: appraise, defend, predict
Synthesis: compose, design, develop
Analysis: compare, contrast, categorize
Application: demonstrate, illustrate, solve
Comprehension: describe, explain
Knowledge: memorize, name, recognize, recall

Using skills and knowledge for school
Using skills and knowledge for myself

Make it relevant with real-world application

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**Quadrant A** Gather and store bits of knowledge and information. Primarily expected to remember or understand this knowledge.

**Example:** Pick the right definition

**Quadrant B** Apply knowledge in real-life situations.

**Example:** Compare car lease to loan

**Quadrant C** Use knowledge to analyze and solve school-based problems and create solutions.

**Example:** Research a paper

**Quadrant D** Apply knowledge and skills in complex ways to analyze and solve real problems and create solutions. Confront real-world unknowns.

**Example:** Participate in a debate

Assessments exist in each quadrant

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**Motivate students - connect them to their learning**

What am I learning today? Why am I learning it? How can I use this knowledge and these skills to make a difference in my life? How can I work with teachers and other students to improve my learning?

**Motivate with the right skills applied to the appropriate task**

You have to know your students and set the instructional target at the correct distance:

- Too close – boring
- Too far - give up

Need to find the right balance between knowledge, skills and thinking process

**Motivate students with meaningful feedback**

Frequent and on-going measures of progress:

Compare to rubrics of good work

Strive to get students to own their learning and measure their own progress

Move from depending on the teacher to students able to identify their own strengths and weaknesses
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Use essential questions
- Overarching
- No obvious right answer
- More rigorous – analysis, synthesis, evaluation
- Provoke and sustain student interest
- Timeless – relevant

Guide students to use learning strategies to build background knowledge
“What’s going on here?”
“What do you see that makes you think so?”

Remember …
it’s also about literacy skills!

Are performance gaps caused by poor motivation and effort or are they really problems in reading comprehension?

Guide students to use learning strategies to build background knowledge

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“What’s going on here?”
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“The Three Bears” Translation

Once upon a time was three bears: mama bear, papa bear, and baby bear. Live in the country near forest. Nice House. (No mortgage.) One day papa, mama, and baby go to the beach, only they forget to lock the door.

By and by comes Goldilocks. She got nothing to do but make trouble. She push all the food down the mouth, no leave crumb. Then she goes upstairs and sleeps in all the beds.

Lazy Slob!

Effective literacy demands fluency
- Some students do not yet read words with enough fluency to facilitate comprehension.
- Some lack the strategies to help them comprehend what they read.
- Some may not be able to generalize their strategies to content-area literacy tasks and lack strategies specific to particular subject areas, such as math, science, or history.

Reading is Constructing Meaning
1. Reading is thinking. Well-written materials model good thinking.
2. Foundation for expressive writing
3. Thoughtful readers become thoughtful problem solvers and better students.

Brad - high school senior
“I don’t look at a book as a whole bunch of words… I look at it as someone’s thinking and the information the author wants me to know.”

From: Do I Really Have to Teach Reading?
~ Cris Tovani

The single highest failure rate in high school is Algebra I

“After pregnancy, it’s the leading indicator of high school dropout.
The leading indicator of success in Algebra I is English 8.
The Algebra 1 test is a reading test with numbers”

~ Doug Reeves, District Administrator April ’05

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**Strategy #1: Defining**

Reflecting on defining skills

- What defining skills do we teach?
- What strategies do we use?
- What strategies are working?

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**The relationship between vocabulary and academic achievement is well established ~ Marzano, What Works in Schools**

- Students with large vocabularies have more background knowledge
- Some students come to us from home environments that are not academically rich
- Vocabulary can be taught:
  - Wide reading: more engaging, but may lack sufficient word exposure
  - Direct instruction: should be student-centered rather than rote-memorization

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**Strategies for teaching defining skills**

1. Connect new vocabulary with prior knowledge
2. Clearly organize new vocabulary
3. Give students a chance to more deeply process vocabulary to internalize meaning
   - Generate / compare their own explanations of terms
   - Ask them to create their own non-linguistic models of terms

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**Pre - reading: Let students work together to compare preliminary definitions. (Visual, auditory and text-based definitions)**

- Students develop their own definition
- Compare to peer definition
- Similarities
- Differences

Use a visual organizer to map out and preview text

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**Foster listening skills**

1. Teacher asks a for a preliminary definition
2. Student #1 responds
3. Teacher asks student #2 to summarize or restate #1.
4. Teacher asks student #3 if the summary is correct
5. Can even go back to #1 for a rebuttal

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4. Explore in graphic format - Concept Definition Map

What are examples?
- Separate white and black schools
- Schools, sports, drinking fountains

What are its properties?
- Mixed, combined, together
- Segregation, Civil rights, Martin Luther King

What is it different from?
- Related words: Separate white and black schools
- Different from: I move with my family to another city, Visiting my friends, Going on a vacation

Characteristics of concept
- My definition of concept
- Example of concept
- Word that connects to concept

What I wouldn’t see

Build background knowledge by asking students to make connections to the new term
1. How the term is related to previous subject matter they have learned
2. Identify something from their personal life associated with the term
3. How the term is used in real-life situations

Strategy #2 : Summarizing

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Reflecting on summarizing skills

- What summarizing skills do I teach?
- What strategies do I use?
- What strategies are working?

Student who use summarizing activities build background knowledge
- Student can “talk” their way into learning
- Retelling to constructing their own meaning
- Use textual evidence to support summaries
- Make and check predictions
- Using graphic organizers

Research shows student use of summarizing skills results in a 34-percentile gain in student performance.
Classroom Instruction that Works, ASCD, 2001

Case 1:
Teacher lectures on the essential characteristics of mammals

Case 2:
Teacher lectures and then students do a summarizing exercise on the essential characteristics of mammals
+ 34% gain in content mastery

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Gather and organize student observations with "post-its"

Differentiate the objective for different ability levels
- Identify - comprehension
- Classify - analysis
- Draw your version - synthesis
- Judge based on criteria - evaluation

Different levels of Bloom's rigor

1. Focus on the important information.
2. Delete trivial info that is unnecessary to understanding.
3. Delete redundant information.
4. Use category terms for lists ("flowers" for "daisies, tulips, and roses").
5. Select a topic sentence (or invent one if it is missing).

Teach and model active listening and reading as foundation for summarizing

Getting the spoken message right
- "So what you're saying is...
- "So what I'm hearing is ...

Leads to getting the written message right
- "So what the author is saying is ...
- "Do you agree with the author's point that ...

Effective questioners are also careful listeners
- Clarifying - restate an idea in another way.
  "What do you mean, when you say ____?
- Verifying - provide evidence or examples
  "How do you know _____?"
- Refocusing - get students "back on track"
  "You seem to be talking about (something else), what do you think about (current topic)?"
- Narrowing the focus to limit the idea talked about.
  "Tell us more about that idea."

Build background knowledge with a Paired Reading

1. Reader reads 1st paragraph to listener
2. Listener gives a summary
3. Check back to text for accuracy
4. Record summary
5. Switch roles

Modify Paired Reading into: Peer Reading Coach

- Select a reading - break into smaller sections
- Teacher develops two guiding questions for each section
- Pair students up and have them alternate role of
  - Coach - reads teacher's questions
  - Summarizer - uses questions to develop summary
- Switch roles with each paragraph to summarize entire reading

Pose open-ended questions to help students build comprehension by developing their own interpretations

- What do you think the story will be about?
- What might you do in a similar situation?
- What does this remind you of in your own life?
- How might this be different if it happened in another time period?
- If you were telling this story, how might you end it?
- What do you think would happen if ...?

Have student groups negotiate a collaborative summary

- Reading pairs develop summary
- Meet with additional groups to negotiate a collaborative summary
  - My key ideas
  - My partner's key ideas
  - Our joint key ideas
  - Key ideas we agree on with another group

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Use a 4-2-1 Free Write to collaborate and reflect on a main idea

<table>
<thead>
<tr>
<th>Student 1 Idea</th>
<th>Student 2 Idea</th>
<th>Student 3 Idea</th>
<th>Student 4 Idea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair A Central Idea</td>
<td>Pair B Central Idea</td>
<td>Group of Four: Headline One Big Idea</td>
<td></td>
</tr>
</tbody>
</table>

All 4 students do a free write “explaining” the big idea to someone who wasn’t in the group

"Telling Board" Use, pictures, text, symbols to summarize and tell a story

Strategy #3: Comparing

Research shows student use of comparison skills results in a 45 - percentile gain in student performance. Classroom Instruction that Works, ASCD, 2001

Case 1:
Teacher lectures on the essential characteristics of mammals

Case 2:
Teacher lectures and then students do exercise comparing the essential characteristics of mammals to birds

Build background knowledge with visual comparisons

Observe and define
Summarize and compare
Pose questions

A one-hour introductory workshop by Peter Pappas
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Use listening skills to make a comparison when people talk about the movies that saw

<table>
<thead>
<tr>
<th>Listen to speaker</th>
<th>What type of film did they see?</th>
<th>Did they like the film?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaker 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speaker 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

"Yeah, it was sentimental story about a policeman who falls in love with a bank clerk who he meets after a robbery. Predictable stuff - they move in together, split up, get back together. Bit boring, really, to tell you the truth."

Students listen to movie reviews

Amazon Rain Forest
- Ave rainfall 175”/yr
- High Humidity
- No frosts
- Little variation in temp-average 80°F
- Ave low 64°F

Mojave Desert
- Ave rainfall 2-6”/yr
- Low humidity
- Frequent frosts
- Big variation in temp
- Low 8°F
- High 119°F

Rainforest Animals
- Spider Monkey
- Ants
- Tarantula
- Desert Tortoise

Desert Animals
- Coyote
- Mohave Rattlesnake

Both Animal
- Bats
- Iguana
- Ants

To deepen meaning ask students to write a compound sentence comparing two regions using "and" or "but"

Reading For Meaning - Students given an article on Relocation of the Cherokee Nation

Teacher produced statement:
For the Cherokees, moving west of the Mississippi is better than being oppressed in Georgia

X Support

Disagree

"We wish to remain in the land of our fathers."
"If we are forced to leave our country, we see nothing but ruin before us."

Comparing what was stated

Ask students to develop their own models to do comparisons

1. They could select items to compare from a teacher-produced list.
2. They could independently decide what to compare.
3. Can include some combination of selecting both the items and / or characteristics.

Let them make it relevant
What’s more important in sports – strength or agility?

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Move from Comparing to Classifying

1. **Comparing** is the process of identifying similarities and differences between or among things or ideas (technically contrasting is looking for differences.)

2. **Classifying** is the process of grouping things that are alike into categories on the basis of the characteristics.

Practice by classifying physical objects

“Post it” classification strategy: Give students a reading. They each write key info from reading on sticky notes. They then work in groups to **silently** classify the info.

Increase rigor of classification – add evaluation and decision-making

<table>
<thead>
<tr>
<th>Decision</th>
<th>Criteria for evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Criteria 1</td>
</tr>
<tr>
<td>Option 1</td>
<td></td>
</tr>
<tr>
<td>Option 2</td>
<td></td>
</tr>
<tr>
<td>Option 3</td>
<td></td>
</tr>
</tbody>
</table>

Measure classification: **What types of stories are found in magazines?**

- What categories?
- Frequency of categories?
- Length of story?
- Illustrations?
- Cover story?

Teach students to observe

- What do you see – what do you call it? – **vocabulary**
- What are the important details? – **Summarizing**
- What patterns do you see? – **Comparison**

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Working Memory
(Processes new/stored information)

Sensory Inputs
(New information)

Background Knowledge
(Stored information in Permanent Memory)

Processed information in working memory becomes more background knowledge

Learning strategies give students tools to process information and build MORE background knowledge

Workshop References

Strategic Reading in the Content Areas  
~ LaRocco, Sessoms  ICLE 2003

Summarization in Any Subject  
~ Rick Wormeli  ASCD 2005

Words, Words, Words  
~ Janet Allen  Stenhouse 1999

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Reading for Academic Success  
~ Strong and Silver  Corwin Press 2002

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~ Mike Rose, Malcolm Kiniry  Bedford 1998

Do I Really Have to Teach Reading?  
~ Cris Tovani  Stenhouse 2004

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~ Laura Robb  Scholastic 2003

Teaching Reading in the Content Areas  
~ Jane Doty  McRel 2003

Building Background Knowledge  
~ Bob Marzano  ASCD 2004

For more resources:

www.peterpappas.com

Content Reading Strategies Workshops:
Tailored to your training needs

June 2005  Winnfield Louisiana

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