

Strategies for Rigor, Relevance and Reading For Struggling Students


**Strategies for
Rigor,
Relevance and
Reading**

**For Struggling
to Average
Readers**



Define
Summarize
Compare

www.peterpappas.com




Peter Pappas
DESIGNS FOR LEARNING

73 Washington Drive
Rochester NY 14621
585.383.8398

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**High School Social Studies Teacher
K-12 Program Director
Assistant Superintendent**

**Senior Consultant
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Instructional Leadership Through
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**content reading strategies
THAT WORK**

Literacy and Content Area Reading Strategies For Academic Success

Boost student achievement with rigor, relevance and literacy strategies. Designed for high-achieving students, the strategies are designed to help students develop the skills to support their literacy learning and comprehension and available from a free website.

by Peter Pappas
Senior Consultant
LEARN

**READ
Think Write
Publish!**

See what happens when teachers and administrators create small learning communities based on a common vision. It's more than new names, structures or programs - it's about quality instruction and:

Engaging the entire school community in thinking critically about student achievement. A consistent focus on common instructional strategies in a student-centered classroom. A professional development program that models rigorous and relevant instruction.

**small learning communities
THAT WORK**



For information on
workshops or
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me@peterpappas.com

Copy / Paste by Peter Pappas
Dedicated to reimagining responsibility for learning to the students.

July 22, 2006


Literacy in a Copy / Paste World

Opening Day faculty keynote Address
Grayson County Schools, Litchfield, KY July 28, 2005

New technologies have put students in charge of the information they access, analyze and share. Yet many schools function as if they still control information. The copy / paste culture creates a bottom-up learning environment where students can be creators as well as consumers of digital age. This paper...



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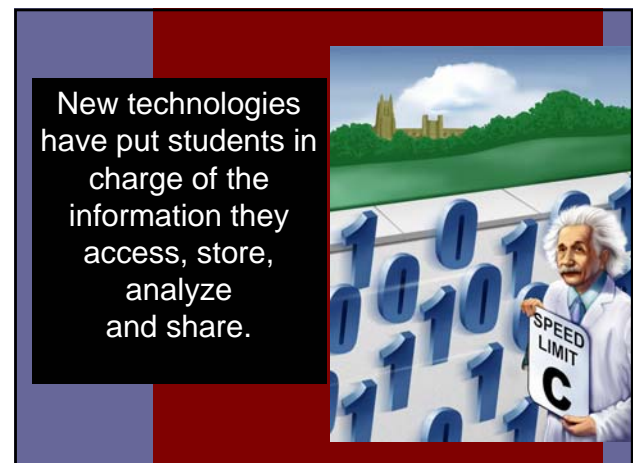
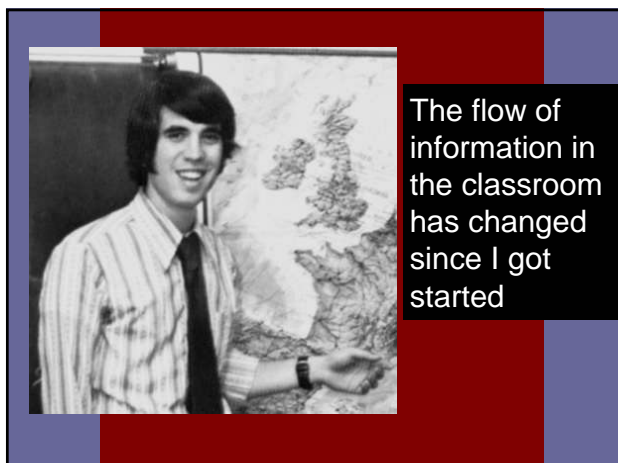
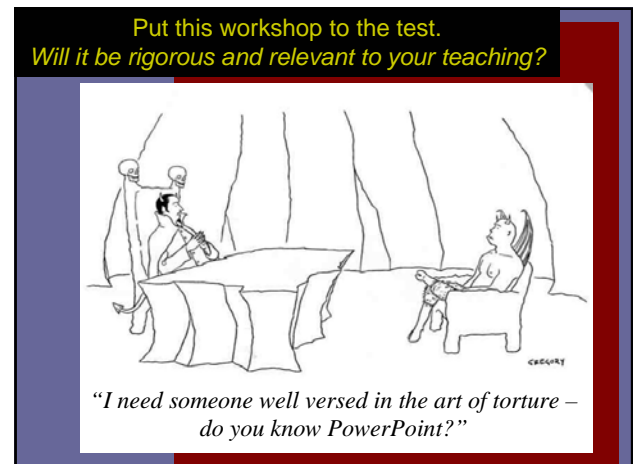
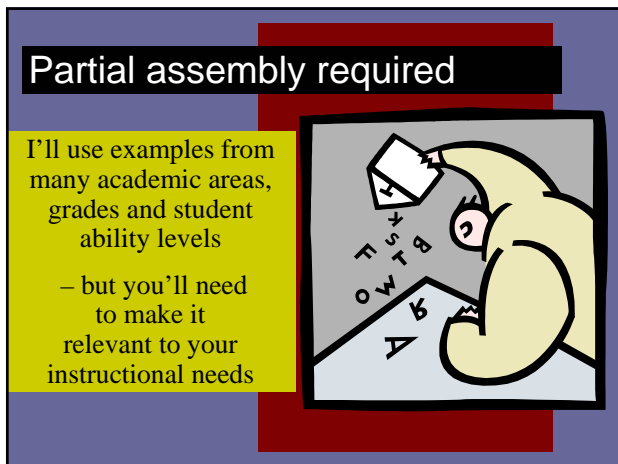
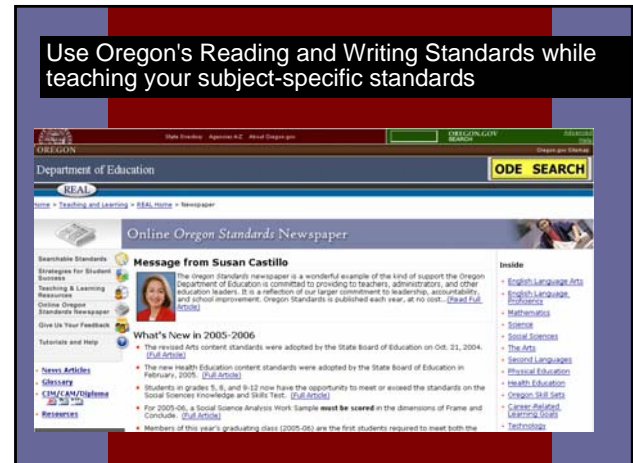
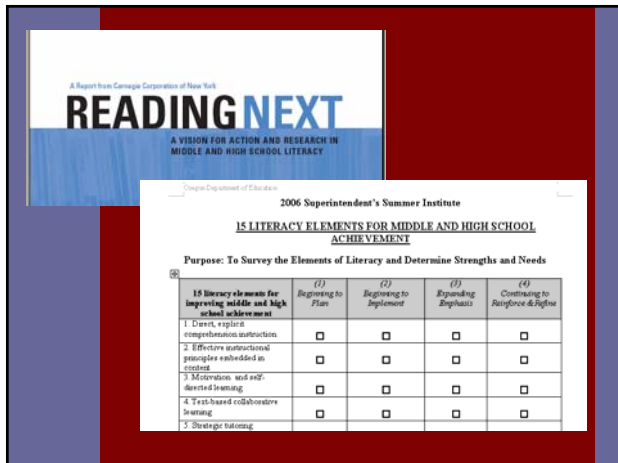


2006 Strategies for Student Success Summer Institute
August 7-9, 2006

**Rigor, Relevance and Literacy
Four workshops**

1. Academic Success for Struggling Readers and Writers – a Publishing Approach that Works!
2. Rigor, Relevance and Reading for Struggling to Average Readers
3. Rigor, Relevance and Reading for High Performing Students
4. Ninth Grade Academy – A Small Learning Community that Works

Strategies for Rigor, Relevance and Reading For Struggling Students



Strategies for Rigor, Relevance and Reading For Struggling Students

Flow of digital information is both personal and collaborative



Students can become their own researcher, editor, and entertainment director.

And join new digital communities – linking them to the people who share their interests.

Schools function as if they still controlled the flow of information



Schools should recognize the realities of the information rich world our students live in

- Offer students skills and context to make some sense of all of it
- Structure learning environments that let students use information to make decisions and solve problems

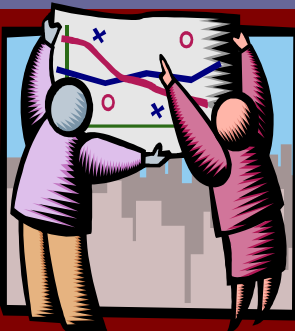
Offer equity for student who can't afford new media tools.

Literacy in the 21st century will mean the ability to find information, decode it, critically evaluate it, organize it into personal digital libraries and find meaningful ways to share it with others.



Information is a raw material – students will need to learn to build with it

Rigor, Relevance, and Learning Strategies



Students must take on the challenge of intellectual work - rather than just look for the right answer.

Bloom's different levels of rigor

Evaluation: appraise, defend, predict

Synthesis: compose, design, develop

Analysis: compare, contrast, categorize

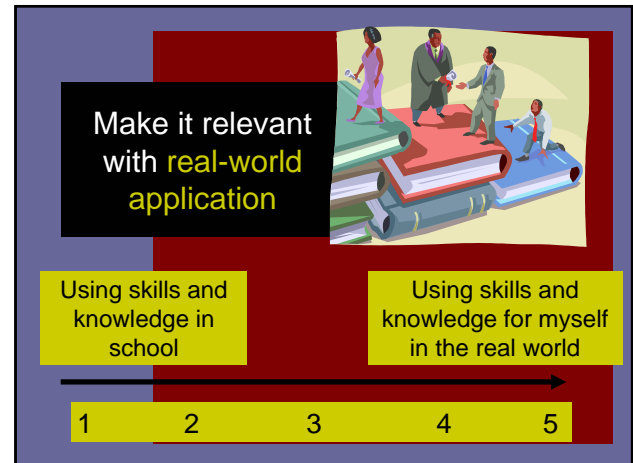
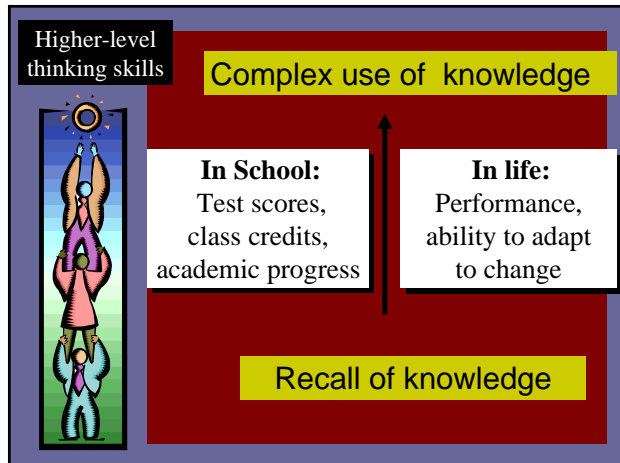
----- Basic Skills -----

Application: demonstrate, illustrate, solve

Comprehension: describe, explain

Knowledge: memorize, name, recognize, recall

Strategies for Rigor, Relevance and Reading For Struggling Students



Question: A cruise ship carries 200 passengers and crew. Each life boat carries 30 passengers. How many lifeboats will the ship need?

Almost one-third of the incoming 9th graders who took a NAEP math test answered

The slide features a black box with a math question. Below it is a yellow box with text stating that almost one-third of incoming 9th graders who took a NAEP math test answered correctly. To the right of the text is an illustration of a person in a lifeboat, looking out at a large ship. The entire slide is set against a dark red background.

Question: A cruise ship carries 200 passengers and crew. Each life boat carries 30 passengers. How many lifeboats will the ship need?

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“6 remainder 20”

The slide features a black box with a math question. Below it is a yellow box with text stating that almost one-third of incoming 9th graders who took a NAEP math test answered correctly. Below the text is the text '“6 remainder 20”'. To the right of the text is an illustration of a person in a lifeboat, looking out at a large ship. The entire slide is set against a dark red background.

Put students in charge of 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?

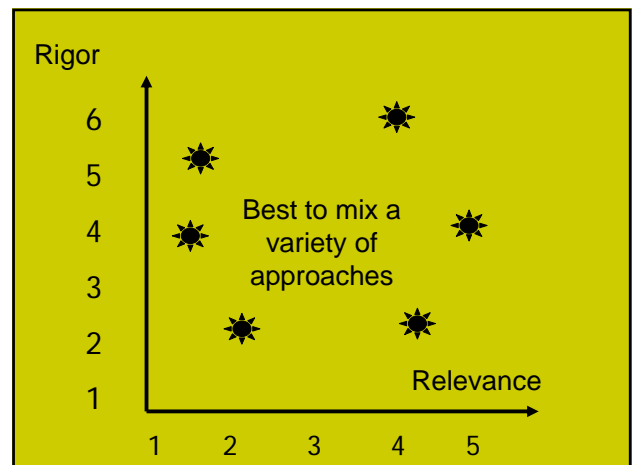
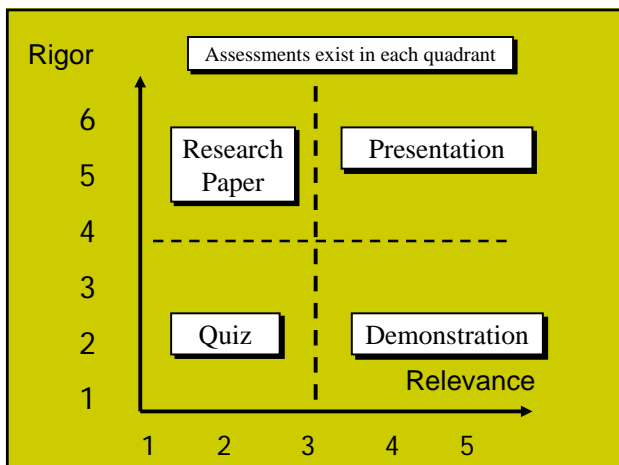
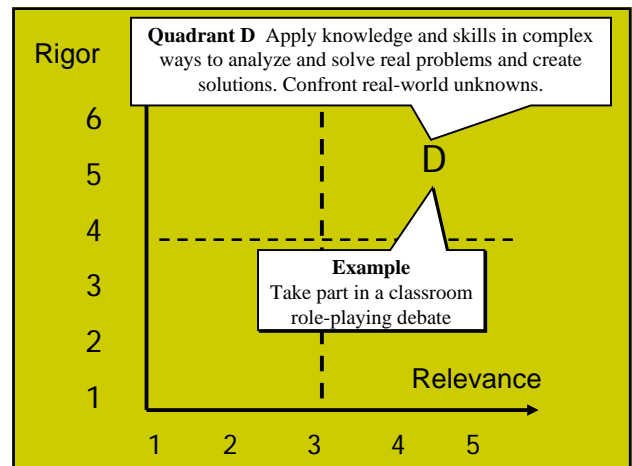
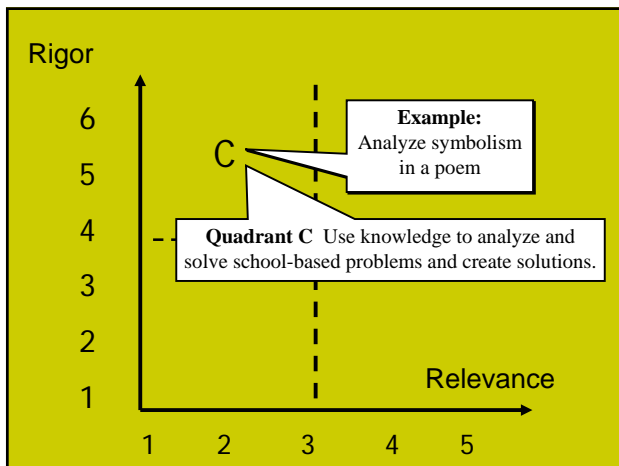
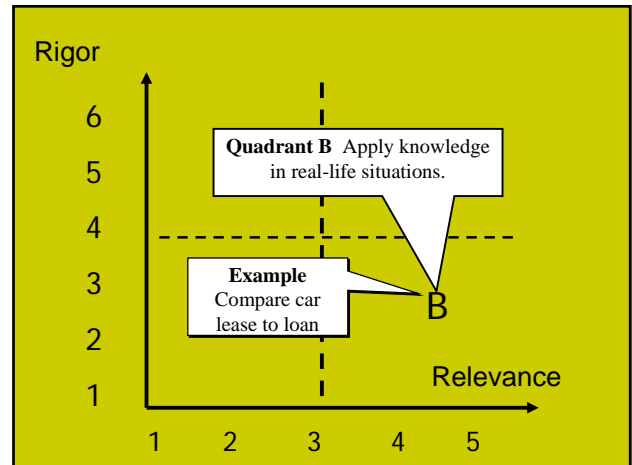
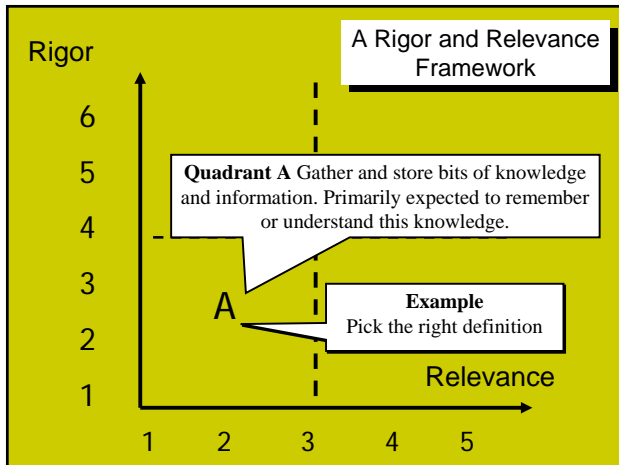
The slide features a black box with the text 'Put students in charge of their learning'. Below it is a yellow box with a list of four questions. To the right of the text is an illustration of a person at the ship's wheel, looking out at a large ship. The entire slide is set against a dark red background.

Goal – students who can function in an academic or real-world setting that is unpredictable and vital

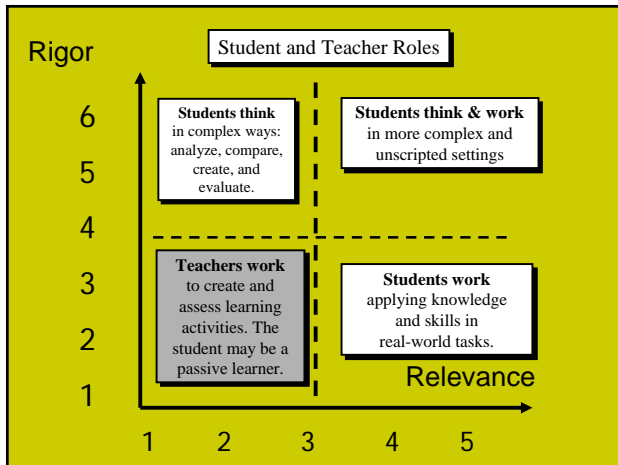
Learn to research, think, problem-solve and write like a **scientist, engineer, coach, artist, historian, mathematician, writer, musician, ...**

The slide features a black box with a goal statement. Below it is a yellow box with text encouraging students to learn to research, think, problem-solve and write like various professionals. The entire slide is set against a dark red background.

Strategies for Rigor, Relevance and Reading For Struggling Students

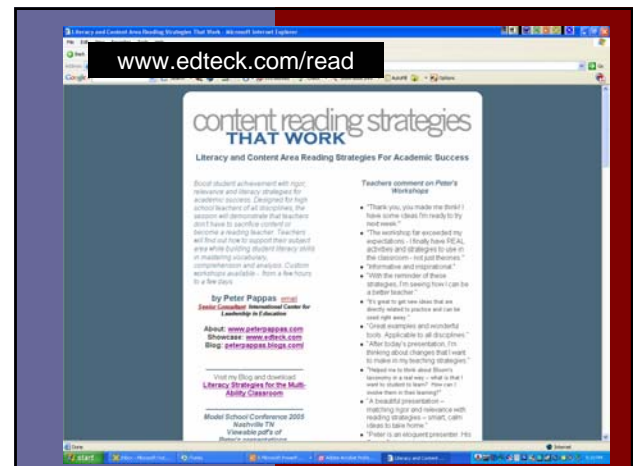
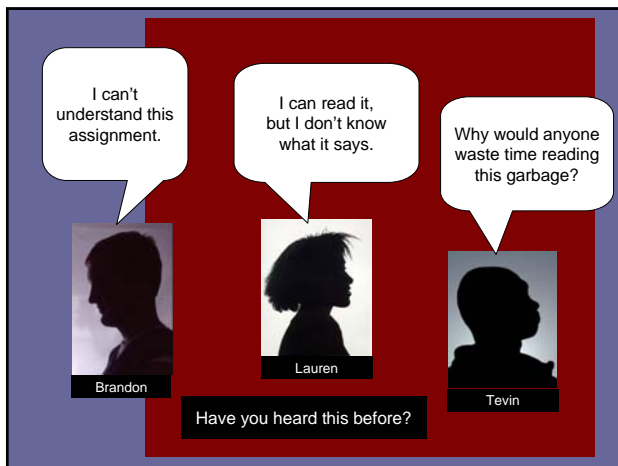


Strategies for Rigor, Relevance and Reading For Struggling Students



Literacy 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.



STRATEGIES FOR STRUGGLING READERS

Meet the "Word-Caller"

The "word-caller" reads orally with accuracy and fluency. Silent reading appears rapid, attentive and purposeful. These students can respond to "right-there" questions when they are allowed to reread but their responses are disorganized and tenuous; they cannot generalize, summarize, synthesize, analyze, infer or evaluate. They do not grasp the relationship of ideas or their importance or relevance. "Word Callers" need support to realize that reading is about constructing meaning and to develop and apply those tools.

The "word-caller" also:

- Provides minimal written responses; their work lacks elaboration.
- Seldom volunteers responses; or raises hand to answer but "forgets."
- Performs poorly on tests that require comprehension or understanding.
- Prefers group work for answers.
- Exhibits poor comprehension skills; may read widely and frequently but without understanding.
- Has limited language and vocabulary; does not grasp multiple meanings, connotative meanings, or figurative language.
- Can decode words that are not in oral vocabulary.
- Appears attentive when "reading" but disengages when response is required.

What the "word-caller" says about reading and themselves:

- "I can read it, but I do not know what it says."
- "I can read it, but I do not know the answers to these questions."
- "I understand more when someone reads to me."
- "I don't understand what is expected of me."

Teacher's Toolbox

Tool 16: Skim and Scan

Use this tool:

- Class
- Unit
- Date
- Source Reading

This tool will help my students:

- Define
- Summarize
- Compare

How to use this tool:

The skim and scan strategy helps students quickly preview readings to develop a better sense of text focus and to thoughtfully set their own purpose for reading.


1. Give students an expository reading assignment such as the chapter of a textbook.
2. Have students skim the reading, as actors like persons in PQIR (Tool 5), scanning the titles, headings, sub-headings, visuals, together, first and last paragraphs.
3. Use the form to gather initial thoughts and impressions about the reading in the First Impressions column.
4. Ask students to recall several facts that they used to generate their first impressions. Put these facts in the First Facts column.
5. Have students review their first two columns and then decide what questions they think the chapter will answer. List these in reading purpose question column.

First Impressions	First Facts	Reading Purpose Questions

To Increase Rigor and Relevance:

1. Allow students to compare forms and discuss how their ideas are similar or different. Also discuss why their thinking is different and whether it is equal. Ask them to explain what it was in the text that generated their impressions of the reading.
2. Have students revise their responses after reading the assignment.
3. Ask students to evaluate the author's success at effectively communicating their main ideas to the reader.

Strategies for Rigor, Relevance and Reading For Struggling Students



Reader's Toolbox

Student Name: _____
 Class: _____
 Date/Day: _____
 Reading Assignment: _____

Tool 15: SAW
Student Action Words

I can use this tool:
 Before I read
 ► while I read
 ► after I read
 This tool will help me:
 ► learn new words
 Summarize what I read
 Compare information and ideas

Reader's Toolbox

Vocabulary word:	Question:	My Image of the Word
Page: _____		
My Definition: _____	Dictionary Definition: _____	
My Antonym (opposite of the word): _____	My sentence to help me remember the word: _____	

How to use this tool:

1. Select interesting vocabulary words from a reading.
2. Quote the actual sentence and page number where the word appears.
3. Define the word in your own words.
4. Look up the definition of the word in the dictionary and add it to the chart.
5. Write an antonym (something that is the opposite of the word).
6. Draw an image and write a sentence that helps you to remember the meaning of the word.

Vocabulary word:	Question:	My Image of the Word
Page: _____		
My Definition: _____	Dictionary Definition: _____	
My Antonym(s): _____	My Sentence to help me remember the word: _____	

Here's something I learned by using this tool: _____

Do I have to become a reading teacher?

1. Subject-area teachers **reinforce instruction strategies** that are effective in their subject areas
2. Students are encouraged to **read and write like subject-area experts**
3. Student achievement will improve - as their skills improve, they **become independent learners**

You can choose to support literacy skills while you teach your content

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

The infographic features a central blue circle with the text "Reading is important" in white. Surrounding this central circle are eight yellow rectangular boxes, each representing a different field of study or profession. Each box contains a title and a list of tasks that require reading skills. The fields are: Math, Science, Health and Physical Education, Music, Vocational Studies, and three others (represented by empty boxes in the original image). The background is a solid blue color.

We're all relying on reading skills

Math

- Analyze statistical reports
- Solve word problems

Science

- Understand and use formulas
- Apply data from reading to practical problems

Health and Physical Education

- Read and apply procedures
- Read training manuals or play guides

Music

- Read music notations and interpret music symbols
- Evaluate and critique music

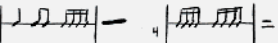
Vocational Studies

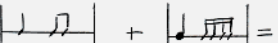
- Interpret recipes, training and assembly manuals
- Read charts, diagrams, pictures, drawings, and plans

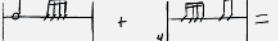
How can we work together across the disciplines to help our students master new vocabulary?		
Math Vocabulary	Social Studies Vocabulary	Student writes a sentence using both terms
Median: The middle number in a set of numbers ordered from smallest to largest.	Demographic: Characteristics of the people of geographic region.	The demographics of the area show that the median age is 62, meaning that half the population is near retirement.


1. Given the “denominator” of each measure, write in the “numerator.”

2. Then add or subtract, and simplify as fractions.

① 

② 

③ 

④ 

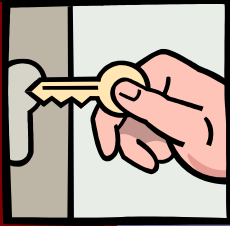
Strategies for Rigor, Relevance and Reading For Struggling Students

Do we help our students set a purpose for their reading?

Think of purpose we set for our reading

Students need to know what they should expect to learn

- Main points or details?
- Sequence of events?
- Author's viewpoint?
- Connections to previous learning?



Would your students benefit from standardized reading assignment form?

1. Specific passage and due date
2. Purpose – what should they know or be able to do? And pay special attention to:
3. New vocabulary that they will encounter
4. Text features – headings, bold face, images, data, graphs, footnotes
5. Reading tips – skim, make predictions, summarize, organize details, take notes

We'll focus on three strategies

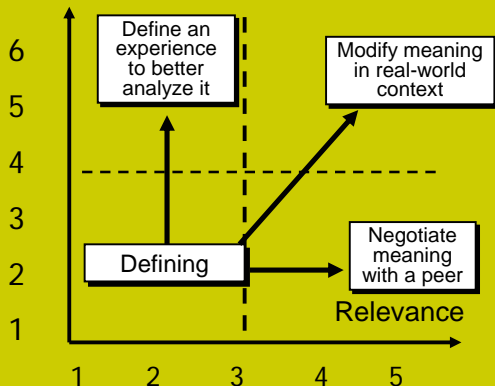
1. **Defining:** negotiating meaning
2. **Summarizing:** synthesis and judgment
3. **Comparing / Classifying:** assessing similarities and differences

We'll use the Rigor and Relevance Model as a framework

Strategy #1:
Defining
negotiating meaning



Rigor



Poor word choice?



Strategies for Rigor, Relevance and Reading For Struggling Students

Strategies for teaching defining skills

1. Connect new vocabulary with **prior knowledge**
 - What they **think they know**
 - Brainstorm **their own explanations** of terms
 - **Introduce with story, current event, image**
2. Give students a chance to more **deeply process** vocabulary to internalize meaning
 - Create their own **non-linguistic models** of terms
 - Activities that **explore, restate, discuss** terms with peers
 - Finalize with **reflection and revisions** to vocabulary notebooks

Build **associations with prior knowledge**.

Connect students with what they already know .

- Have you ever heard the term **equidistant**?
- What words do you see in **equidistant**?
- What do you associate with **equidistant**?

Let students generate **preliminary definitions**

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

Reading for Academic Success ~ Strong and Silver

Add a graphic organizer –
How well do I know these words?

Don't know this word at all

Have seen or heard,
but don't know meaning

I think I know meaning

I know meaning of this one

Words, Words, Words ~ Allen

List, Group, Label **Example "Revolution"**

1. List all the words they can think of related to the subject
2. Group the words that you have listed by looking for word that have something in common
3. Once grouped, decide on label for each group

Use a variety of skills - prior knowledge, identifying, listing
Use words in multiple contexts allow to be creative.
Group work exposes students to thinking of others

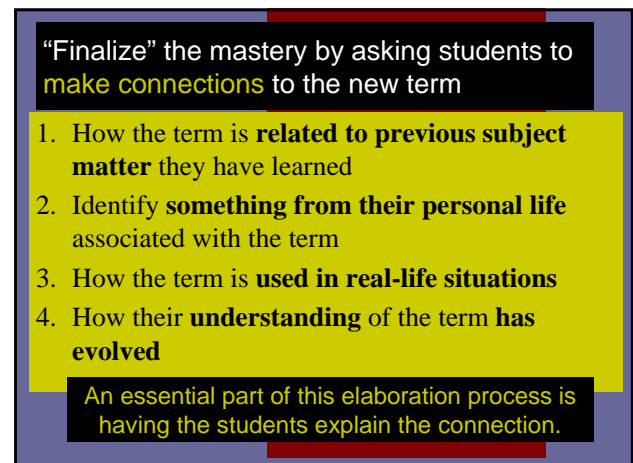
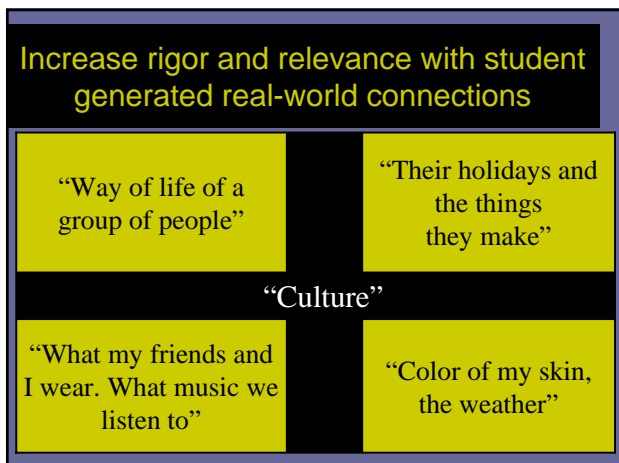
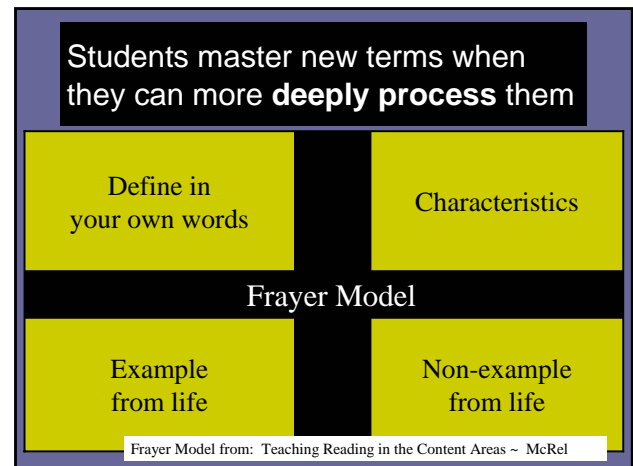
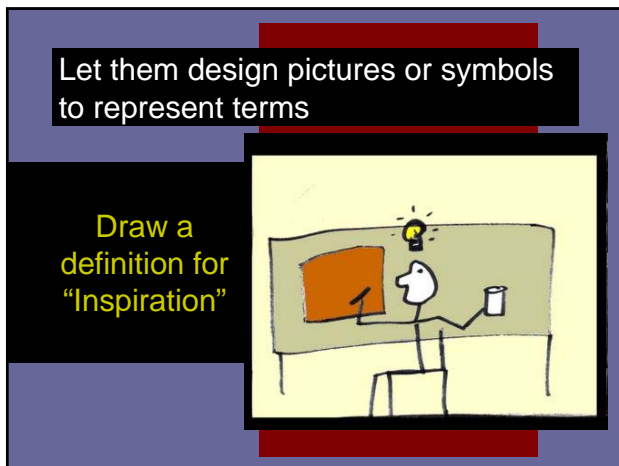
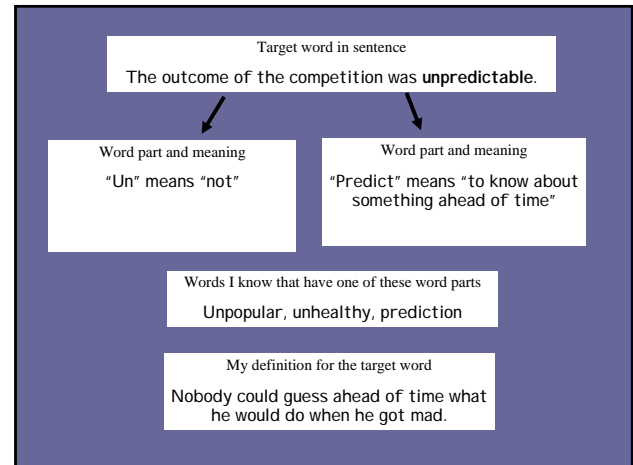
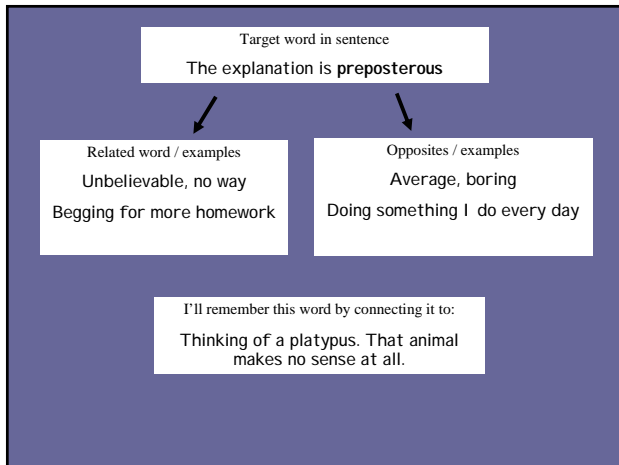
Words, Words, Words ~ Allen

Students **internalize new vocabulary** when they **explore** the words –

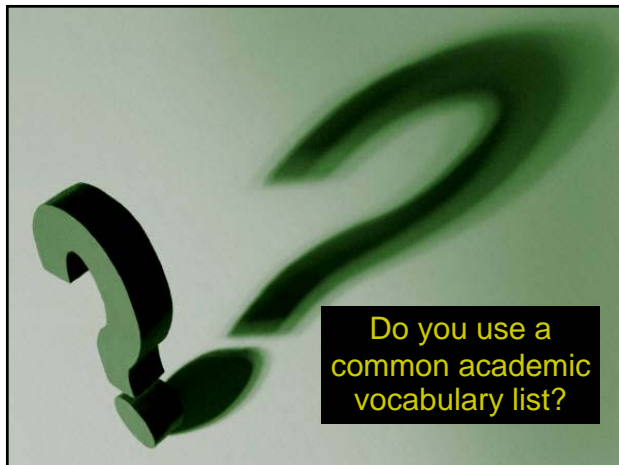
- Think about terms, examine and reexamine in new ways.
- Apply their understanding - opposites and analogies.
- Create multiple formats for which students can elaborate on the meaning of new terms.

Increase rigor and relevance with **non-linguistic definitions**
– Charades, role play, tableau

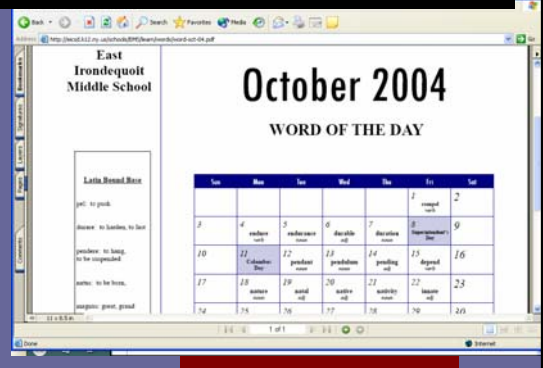
Strategies for Rigor, Relevance and Reading For Struggling Students



Strategies for Rigor, Relevance and Reading For Struggling Students



Teamwork! Organize a school or department **academic vocabulary list**



<u>Latin Bound Base</u>	Mon	Tue	Wed	Thu	Fri
pel: to push					1
durare: to harden, to last	4 endure verb	5 endurance noun	6 durable adj	7 duration noun	8 Super
pendere: to hang, to be suspended	11 Columbus Day	12 pendant noun	13 pendulum noun	14 pending adj	15 d
natus: to be born,	18 nature noun	19 natal adj	20 native adj	21 nativity noun	22 w
magnus: great, grand	25 magnificent adj	26 magnify verb	27 magnanimous adj	28 magnitude noun	29 un

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**

Ask the students to explain the connection.

Teachers must monitor accuracy of student work

1. Use introductory activities as a chance to "pre-test" their understanding
2. Circulate to check work and vocabulary notebooks during group time
3. During review activities listen for misconceptions and areas of confusion. Clear them up!
4. Consider having students keep records of their own progress



Strategies for Rigor, Relevance and Reading For Struggling Students

Vocabulary Self-Evaluation

Rubric Level	Description
4	I understand even more about the term than what I was taught.
3	I understand the term and I'm not confused about any part of what it means.
2	I'm a little uncertain about what the term means, but I have a general idea.
1	I really don't understand what the term means.

Building Academic Vocabulary - Bob Marzano

Student Progress Chart

Unit 3

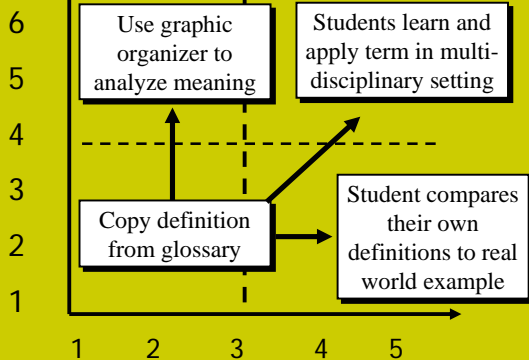
Student Name _____ Date _____

Rubric 4	X	X	X					
Rubric 3	X	X	X	X	X			
Rubric 2	X	X						
Rubric 1	X							

Building Academic Vocabulary - Bob Marzano

Rigor

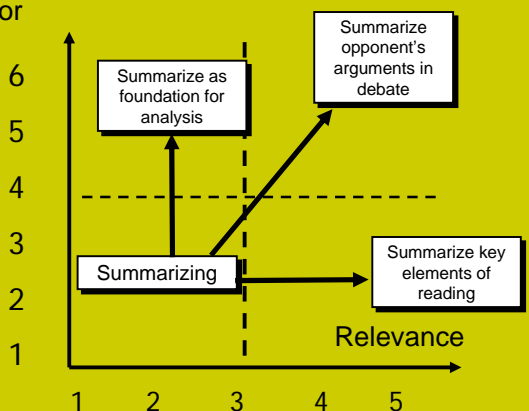
Improving the Rigor and Relevance of Defining



Strategy #2: Summarizing synthesis and judgment



Rigor



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

Strategies for Rigor, Relevance and Reading For Struggling Students

Model **active viewing, listening, and reading** as a foundation for summarizing

Getting the **visual message** right

"So what the artist is saying is..."

Getting the **spoken message** right

"So what you're saying is..."

Getting the **written message** right

"So what the author is saying is ..."

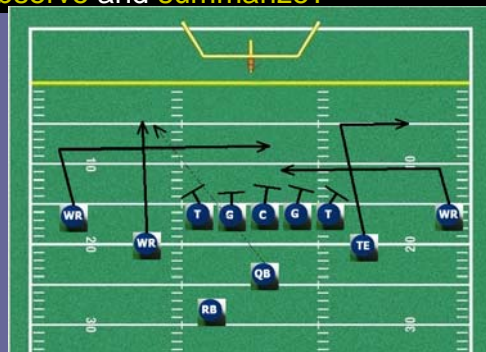
Visual, listening, and reading skills

- **Identify details** – can you identify key symbols, words, visual elements?
- **Recognizing context** –where is this taking place, time period, who's involved?
- **Identify relationships** –who are these people, what is their relationship to one another?

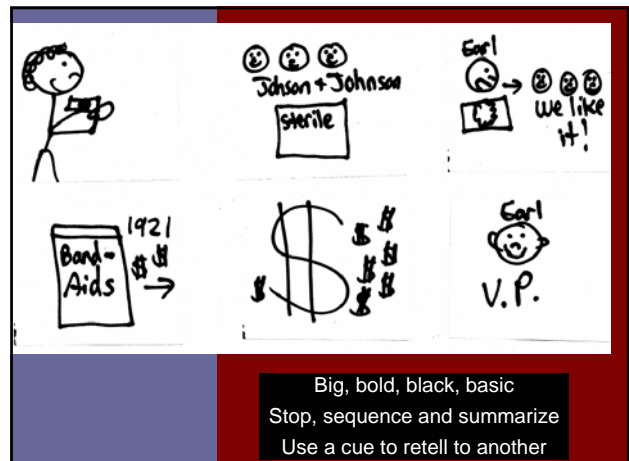
Visual, listening, and reading skills

- **Identify opinions** – is there a point of view expressed in the source information?
- **Infer meaning** – is there meaning that can be extracted from what's between the lines?
- **Make predictions** – based on the information, what will happen next?

We can all give students a chance to **observe** and **summarize**?



"Telling Board" Each frame is a place for the writer to put information, pictures, text, symbols to sequence a story Roger Essley - Author, Illustrator



Big, bold, black, basic
Stop, sequence and summarize
Use a cue to retell to another

Strategies for Rigor, Relevance and Reading For Struggling Students

Build more powerful summaries with 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



Strategic Reading in the Content Areas ~ ICLE

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

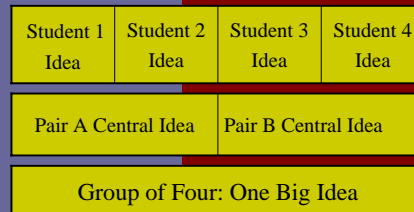
Reading for Academic Success ~ Strong and Silver

Increase relevance – 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*

Reading for Academic Success ~ Strong and Silver

Increase relevance – use a 4-2-1 Free Write to collaborate and reflect on a main idea



All 4 students do a free write "explaining" the big idea to someone who wasn't in the group

Reading for Academic Success ~ Strong and Silver, 2002

Open-ended questions to deepen understanding ... "What's going on here? What do you see that makes you think so?"

- 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... ?

Improving Comprehension, Jill Slack, SEDL Letter, June 2005

Comprehension, summarizing and the spoken message

The teacher **models** strategies then **transfers** responsibility to students working in small groups.

Students learn to independently and flexibly **apply the strategies on their own.**

- Pair – share
- 4-2-1- Free write
- Jigsaw
- Fishbowl
- Clarifying
- Predicting
- Peer Reading Coach

Strategies for Rigor, Relevance and Reading For Struggling Students

Specify basic **text summarizing skills** – delete, substitute, and keep

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).

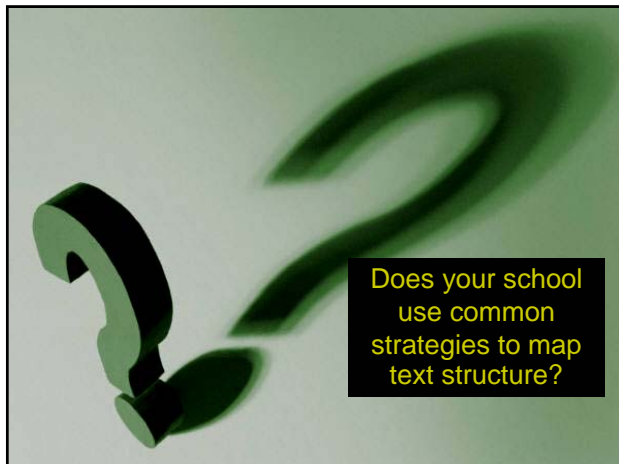
Classroom Instruction that Works, ASCD

Writing a summary matched to text structure

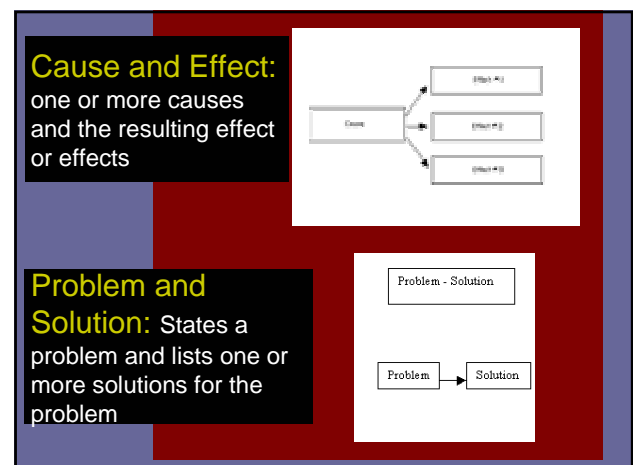
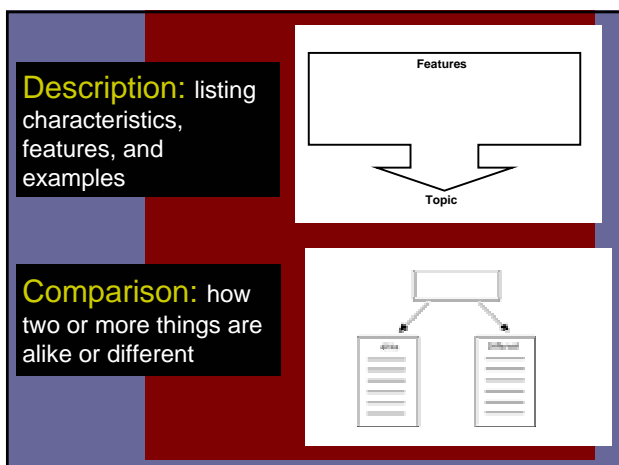
Recognizing **how a piece of writing is organized** helps to summarize it

Students may need to first map out the main points in a rough outline so that they can see the relationships

*Critical Strategies for Academic Thinking and Writing
by Mike Rose, Malcolm Kiniry*



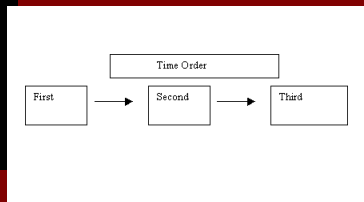
Pattern	Description	Cue Words
Description	Describes a topic by listing characteristics, features, and examples	for example, characteristics are
Comparison	Explains how two or more things are alike and/or how they are different.	different; in contrast; alike; same as; on the other hand
Cause and Effect	Lists one or more causes and the resulting effect or effects.	reasons why; if...then; as a result; therefore; because
Problem and Solution	States a problem and lists one or more solutions for the problem.	problem is; dilemma is; puzzle is solved; question... answer
Sequence	Lists items or events in numerical or chronological order.	first, second, third; next; then; finally



Strategies for Rigor, Relevance and Reading For Struggling Students

Sequence:

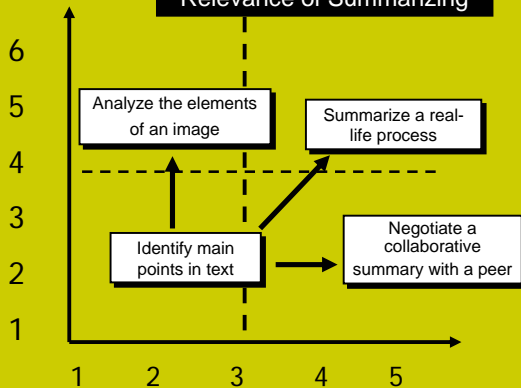
Lists items or events in numerical or chronological order



Remember to teach students to **evaluate** their own summaries

- Are the ideas in the **right sequence** / organization?
- Is it too **narrow or broad**?
- Would **someone else** reading my summary **understand** the subject?
- Does it convey the information **accurately and fairly**?
- Did my summary **suit my purpose**?
- Did I use **my own words and style**?

Rigor



Strategy #3:
Comparing
assessing
similarities and
differences



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 components of nutrition

**+ 45% gain
in content mastery**

Case 2:

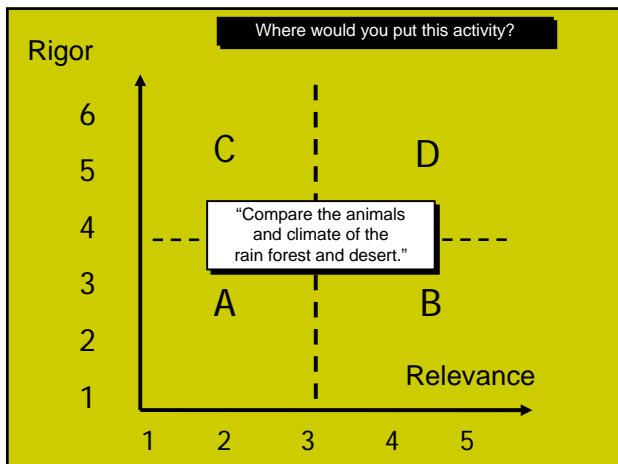
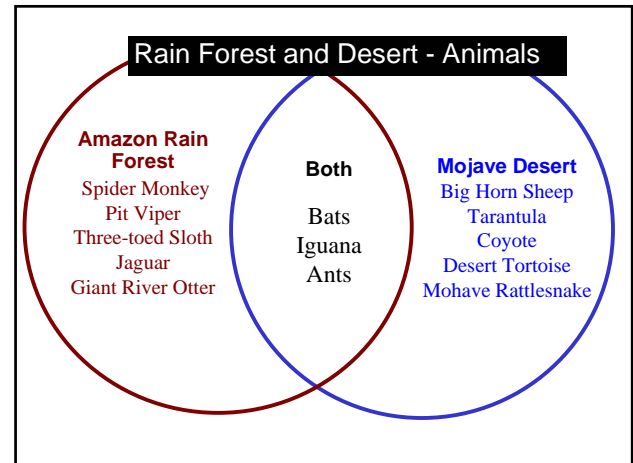
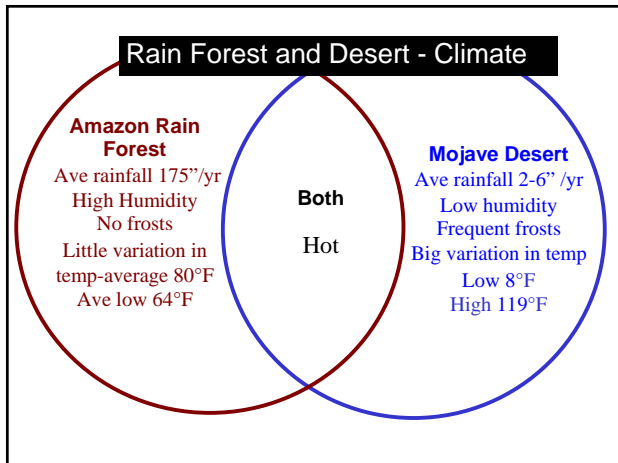
Teacher lectures and then students design a comparison of the essential components of nutrition

"Compare the animals and climate of the rain forest and desert."

Amazon Rain Forest	Mohave Desert
Ave rainfall 175"/yr High Humidity	Ave rainfall 2-6" /yr
No frosts	Low humidity
Little variation in temp-average 80°F	Frequent frosts
Ave low 64°F	Big variation in temp
Hot	Low 8°F
Spider Monkey	High 119°F
Pit Viper	Bats
Three-toed Sloth	Iguana
Jaguar	Ants
Giant River Otter	Big Horn Sheep
Bats	Tarantula
Iguana	Coyote
Ants	Desert Tortoise
	Mohave Rattlesnake

Classroom Instruction that Works, ASCD

Strategies for Rigor, Relevance and Reading For Struggling Students



But who is doing the thinking in this exercise?
“Compare the animals and climate of the rain forest and desert.”

1. Did students select **the information** and **decide on the categories**?
2. Did they **design the graphic organizer**?
3. Is it **really an exercise in memorizing and repeating** the appropriate (complex) information that others have told the student?

What's the point of the comparison?
 What does it enable us to do or see?

How would students independently compare regions?

- Select two geographic regions of the world
- Develop a model to compare the regions
- Select at least two factors to compare
- Develop a graphic organizer to display your comparison.

Do you give students an opportunity to **develop their own models for comparison?**

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**.
 - Of what use is the comparison
 - What does it enable us to do or see?

Strategies for Rigor, Relevance and Reading For Struggling Students

Develop a comparative analysis of **What's more important in sports ...strength or agility?**

Add a peer review of research proposals



Is Tuesday's school lunch better than Wednesday's?



Design comparison
Select characteristics
Rating system

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 thing** that are **alike into categories** on the basis of the **characteristics**

Comparison depends on classification.
The student may not be aware of the connection, because the teacher did the classifying in advance, leaving only the comparing for the student.

It's like comparing **apples** and **oranges**



Who determines the categories and "rules" for membership?

Can your students move from comparing to **designing classifications systems?**

- We typically ask students to **take someone else's classification system** and apply it.
- We rarely ask students to **generate a classification system of their own**.
- Creating categories gives them a chance to **assert their intellectual independence**.

- Of what use is the classification system?
- What does it enable us to do or see?

Rigor and relevance in practice:
Student-designed classifying exercise

1. **What** do I want to classify?
2. What **things are alike** that I can put into a group?
3. **Does everything fit** into a group now?
4. Would it be better to **split up any of the groups** or put any groups **together**?

Strategies for Rigor, Relevance and Reading For Struggling Students



"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

Decision	Criteria for evaluation		
	Criteria 1	Criteria 2	Criteria 3
Option 1			
Option 2			
Option 3			

Make it relevant -
Choose a Career

Criteria for Selecting a Career

	Pay	Growth	Training
Career choice 1			
Career choice 2			
Career choice 3			

What criteria will you use?
Are they of equal importance?
How can your evaluations be quantified?
How can you use your analysis to justify a decision?

Quantify classification with a content analysis

What types of stories are found in magazines?

- How will you categorize your observations?
- How will you organize your team to gather and evaluate the information?
- How will you record and present your findings?



Measure classification: How will you quantify your observations?

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



Strategies for Rigor, Relevance and Reading For Struggling Students

A rigorous and relevant presentation plan for content analysis

1. Why you're interested in finding the answer.
2. How you gathered your data.
3. Graphic representation of the data.
4. The answer to the research question.
5. What you learned from the project.

