

# Rigor, Relevancy and Literacy for Middle School Teachers

## ODE Summer Conference 2007

*Rigor, Relevancy and Literacy for Middle School Teachers*



**Peter Pappas**

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Photo by Ian Pappas - [Link to Photos](#)

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Comments, lessons and material from my recent presentations

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**NYLeans.org** From: NYLeans.org - March 2006  
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Peter Pappas is no stranger to public education. In addition to his twenty-five years as a high school social studies teacher, Peter has served as Assistant Superintendent of Instruction at Elmwood Park Public Schools, and worked as a Senior consultant for World Education.

content reading strategies  
**THAT WORK**  
Literacy and Content Area Reading Strategies For Academic Success

Some of my websites

READ  
Think & Write  
Publish!

small learning communities  
**THAT WORK**

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.

**Copy Paste**  
Dedicated to relinquishing responsibility for learning to the student

Go to:  
**peterpappas.blogs.com**  
for updated color  
handout

Teaching Innovation in  
On March 7, 2007, I was  
no longer satisfied  
When your foundation

March 08, 2007

December 2006

**Essential questions:**

1. What does rigor and relevance look like in the classroom? Does it extend to all students?
2. How does it transition from middle to high school?
3. To what extent is learning student- or teacher-directed?
4. How can I help build literacy and still teach the Oregon Content Standards?
5. Rigor, relevance, and student-centered learning are good in theory, but how do we get past the challenges – lack of time, students who can't (or won't do) independent work, overcrowded curriculum, state tests, etc

1. Rigor, relevance and literacy

2. Defining

3. Summarizing

4. Comparing

5. Implications for the classroom

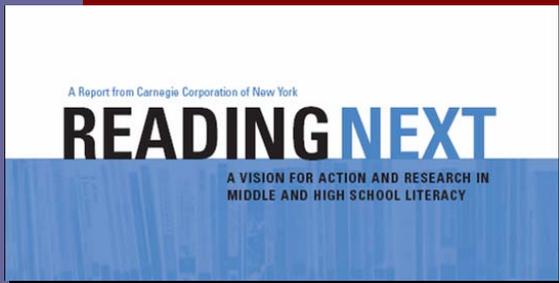
**Agenda**



# Rigor, Relevancy and Literacy for Middle School Teachers

## ODE Summer Conference 2007

### Literacy - constructing meaning



We'll focus on how you can use Reading Elements while teaching your subject standards

### Reading Elements we'll address

1. Direct, explicit comprehension instruction	X
2. Effective instructional principles embedded in content	X
3. Motivation and self-directed learning	X
4. Text-based collaborative learning	X
5. Strategic tutoring	
6. Diverse texts of varying difficulty levels, topics, styles	
7. Intensive, integrated writing as a vehicle for learning	X
8. A technology component	X

We'll tap into the collective instructional and leadership experience in the room

#### Learn, Affirm and Share

- Share practical strategies and validate ones you're already using.
- Make organizational plans for moving forward.
- Have some fun.

Audience Response System courtesy of:



**Mike Venrose**  
**Turning Technologies**  
**(330) 884-6044**  
**mvenrose@turningtechnologies.com**

Feather is to peacock as scale is to:

- 16% 1. shark
- 84% 2. bass
- 0% 3. dolphin
- 0% 4. whale

Brain is to processor as eyes are to:

- 9% 1. hard drive
- 4% 2. mouse
- 51% 3. webcam
- 36% 4. monitor

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As a workshop participant, I could best be described as a:

- 21% 1. Sponge – I'll soak it up
- 50% 2. Pioneer – I'm quick to adopt new ideas
- 21% 3. Skeptic – Better convince me
- 2% 4. Vacationer – I'm treating this as a break
- 5% 5. Prisoner – They're making me go to this

When I go to a workshop, I like to:  
You can pick 2

- 4% 1. Focus on the theory of instruction
- 40% 2. Get ideas I can use in my classroom
- 12% 3. Interact with my peers
- 23% 4. Be inspired
- 21% 5. Reflect on my practice

NAEP  
assessment of  
8<sup>th</sup> graders



Only 36% can proficiently:

- Understand beyond the literal level
- Make connections to personal experience and background knowledge
- Monitor their own comprehension and learning

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

for more...  
[www.edteck.com/read](http://www.edteck.com/read)

## content reading strategies THAT WORK

Literacy and Content Area Reading Strategies For Academic Success

Boost student achievement with rigor, relevancy and literacy strategies for academic success. Designed for high school teachers of all disciplines, the session will demonstrate that teachers don't have to sacrifice content or become a reading teacher. Teachers will find out how to support their subject area while building student literacy skills in mastering vocabulary, comprehension and analysis. Custom workshops available - from a few hours to a few days.

by Peter Pappas  
Senior Consultant International Center for Leadership in Education

### Teachers comment on Peter's Workshop

- "Informative and inspirational"
- "With the reminder of these strategies, I'm seeing how I can be a better teacher."
- "It's great to get new ideas that are directly related to practice and can be used right away."
- "Great examples and wonderful tools. Applicable to all disciplines."
- "After today's presentation, I'm thinking about changes that I want to make in my teaching strategies."
- "Helped me to think about Bloom's taxonomy in a real way -- what is that!"

## Why do students struggle?

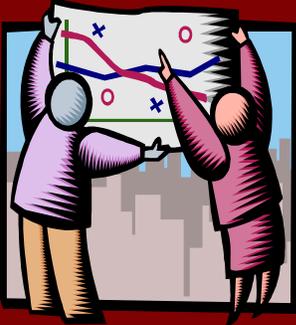
The problem is not illiteracy, but **comprehension**.

The bulk of struggling secondary readers can read, but **cannot understand what they read**.

~Reading Next

# Rigor, Relevancy and Literacy for Middle School Teachers ODE Summer Conference 2007

## Rigor and Relevance in the 21<sup>st</sup> Century



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

### Rigor: Bloom's taxonomy

*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

### When can students start doing higher level thinking?

- You give the students a selection of familiar objects and ask them to classify them
- You scaffold / model the task, but they develop the classification independently
- They should be able to describe reasons for classification
- When adding a new object they can put in correct category or modify system to accommodate the new object

### What's the earliest level that a student could design a classification system using familiar objects.

59%	1. Ages 1-2
36%	2. Ages 3-4
3%	3. Kindergarten
3%	4. Grade 1 - 2
0%	5. Grade 3 - 4
0%	6. Grade 5 - 6

Higher-level thinking skills

Complex use of knowledge

**In School:**  
Teacher-directed  
Defined tasks

**In life:**  
Self-directed  
Adaptable / fluid

Recall of knowledge



Justin, a second grader, talks about math

Justin  
Math is when you add or subtract numbers. And your teacher will make sure you have the right ansewr.



Only right answers count.  
Teachers tell you how to get those right answers.  
You work by yourself to solve problems.

From: Math Is Language Too: Talking and Writing in the Mathematics Classroom  
Phyllis Whittin

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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 8<sup>th</sup> graders who took a NAEP math test answered

**“6 remainder 20”**



From a high school valedictorian:

“I could **memorize very easily**, and **became valedictorian**.

But I was **embarrassed that I understood much less** than some other students who cared less about grades.

I felt that **my brain was a way station for material** going in one ear and (after the test) out the other.”

~ High School Student quoted in Wiggins and McTighe *Understanding by Design*

And make it relevant with **real-world application**



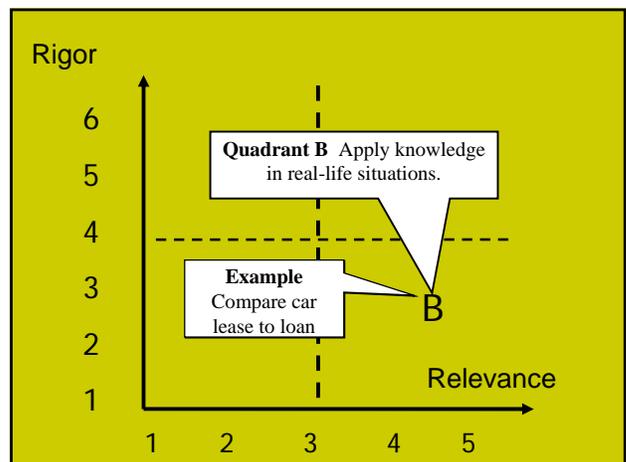
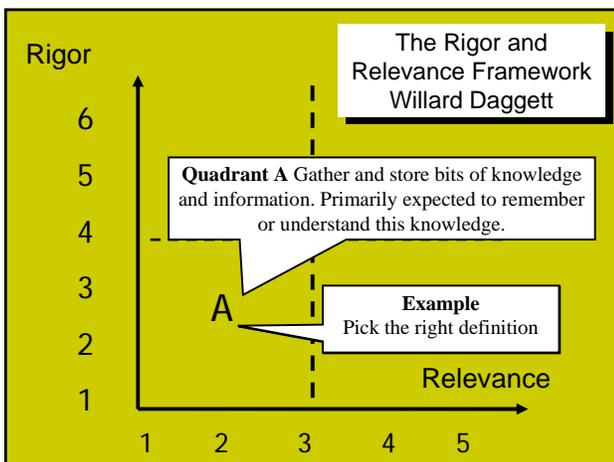
Using skills and knowledge in school

Using skills and knowledge for myself in the real world

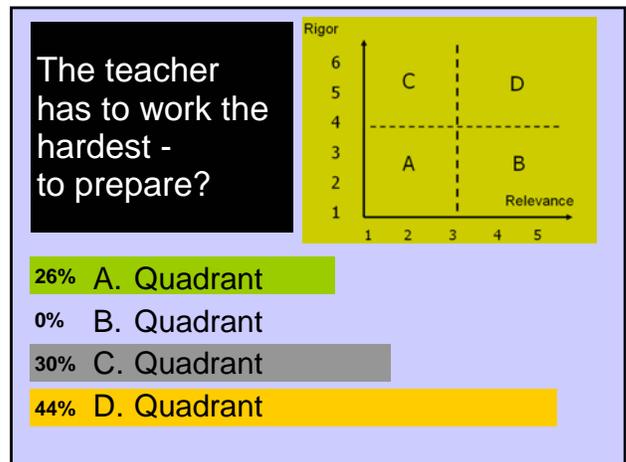
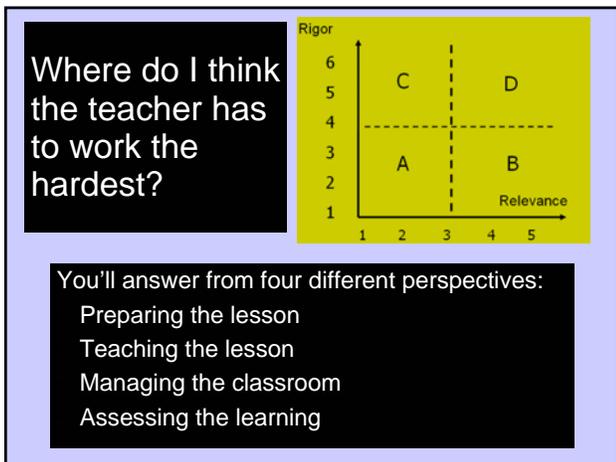
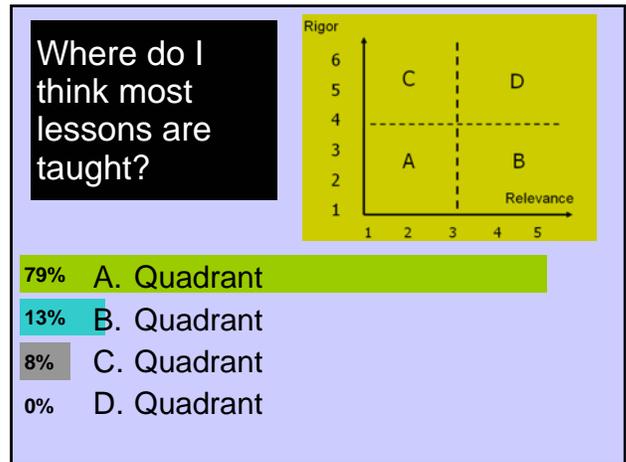
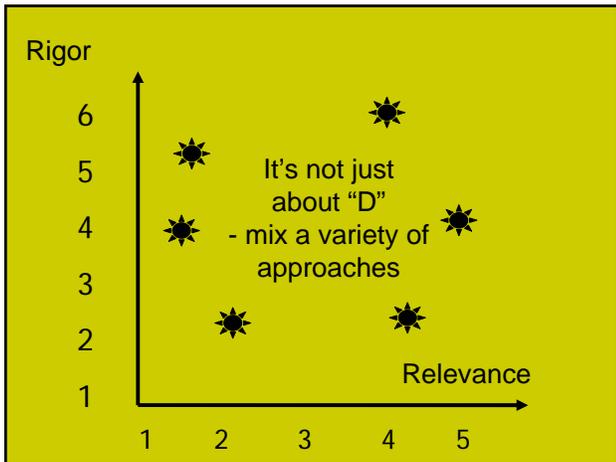
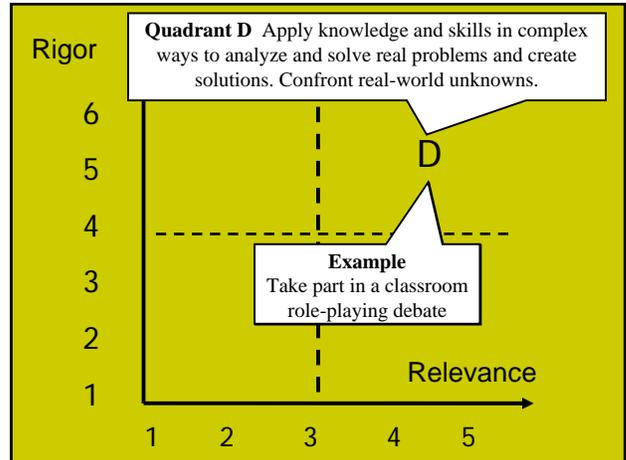
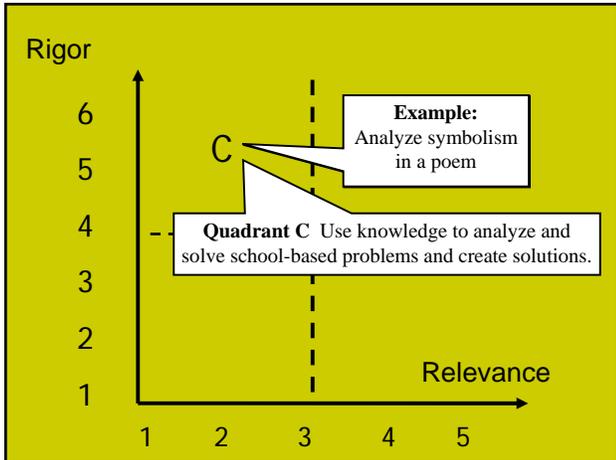
1 2 3 4 5

Relevance

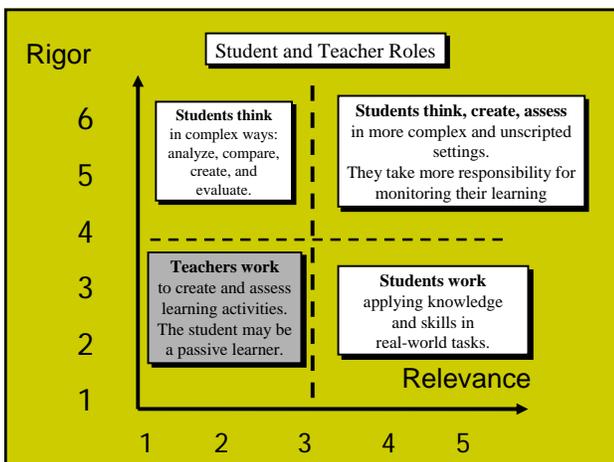
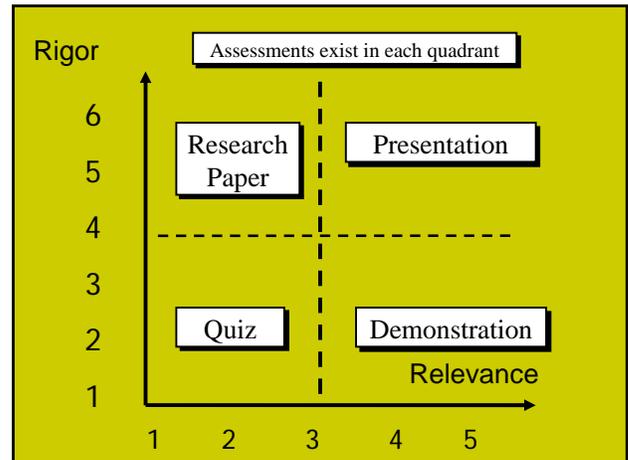
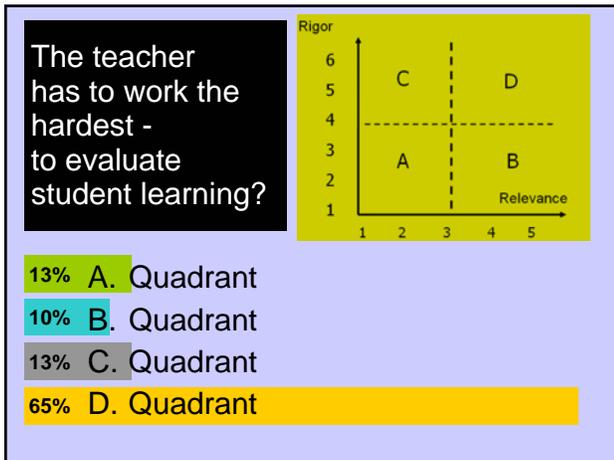
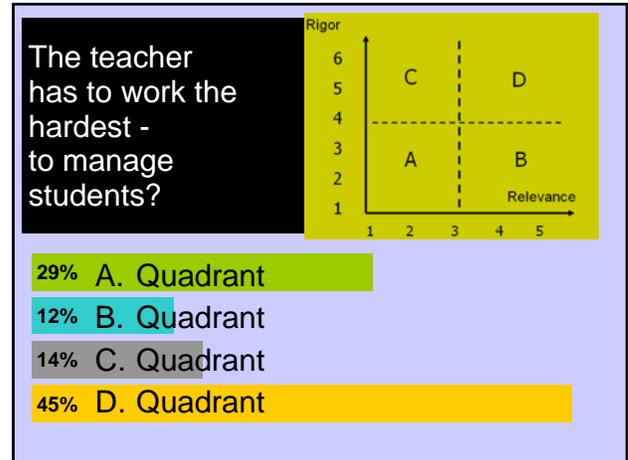
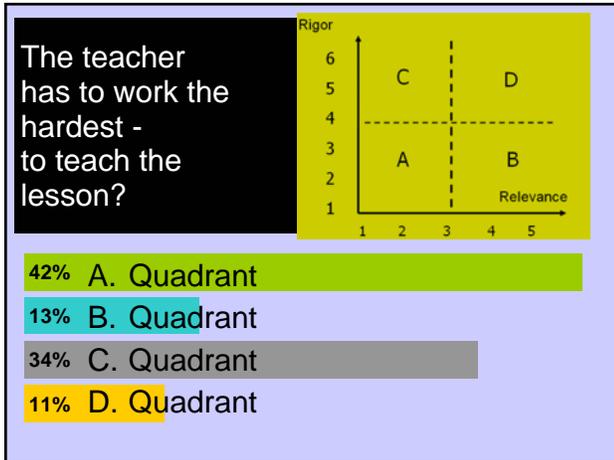
1. I understand how this information or skill has some application in life.
2. I have an opportunity to construct my own understanding rather than just learn “the facts.”
3. In addition to learning content and skills, I am learning how to learn .



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If the learning is student centered... shouldn't they be involved in assessing their own progress?

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# Synthesis

## What's special about Synthesis?

*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

## Grade 10 Standards ~ Synthesis Examine Content and Structure

- **Synthesize and use information** from a variety of consumer and public documents to explain a situation or decision and to solve a problem
- **Synthesize the content from several sources** or works by a single author dealing with a single issue; paraphrase the ideas and **connect them to other sources and related topics** to demonstrate comprehension
- **Evaluate the logic, unity and consistency of text**, etc.....

Oregon ELA Standards

## CIM ~ Synthesis Examine Content and Structure

- **Synthesize and use information** from a variety of consumer and public documents to explain a situation or decision and to solve a problem (grade 8)...
- **Synthesize the content from several sources** or works by a single author dealing with a single issue; paraphrase the ideas and **connect them to other sources and related topics** to demonstrate comprehension (grade 10)
- **Evaluate the logic, unity and consistency of text**, etc.....(grade 10)

## Bloom's Synthesis

### Extended Application

The student will be able to **apply and extend** academic and career-related **knowledge and skills** in **new and complex or non-routine situations** appropriate to the student's personal, academic, and/or career interests and post-high school goals.

# Evaluation

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What's special about Evaluation?

**Evaluation: appraise, defend, predict**

*Synthesis:* compose, design, develop

*Analysis:* compare, contrast, categorize

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

*Application:* demonstrate, illustrate, solve

*Comprehension:* describe, explain

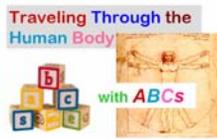
*Knowledge:* memorize, name, recognize, recall

**Bloom's  
Evaluation**

Collection of Evidence  
~ Creating a Reflection

1. Which parts of your collection **give you the most pride**? **Why**?
2. As you completed your collection, what kinds of **challenges did you face**? **What did you learn** from those challenges?
3. How are the knowledge and skills you describe **relevant to your education plans** and post-high school **goals**?

The middle school "bridge" to Extended Application



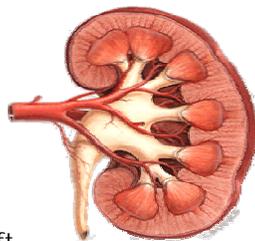
[www.edteck.com/publish/](http://www.edteck.com/publish/)



**K** is for  
Kidney

By- Holly and Sarina

The kidneys separate waste from blood and turn it into urine. Most people have both a left and a right kidney.



**Kidney** By-Holly and Sarina

The kidneys can relate to a pool filter because both of them separate the bad things from the good things. The pool filter empties the bugs and leaves from the water and the kidneys, they get rid of the bad things in your blood and turn it into liquid waste.

**K**



Pool filter

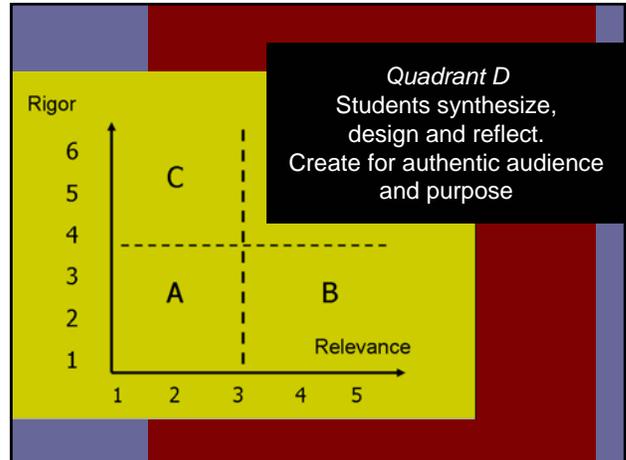
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What process did you use to complete the project?

We **researched** our organ first. While doing this, we **took notes**. We then used these notes to **write a rough draft, revised it** and typed our PowerPoint. **We did all this together.**



Then we read everything over to see if everything **made sense to our audience.**



### Higher and lower order reflection

<i>Evaluation</i>	I describe patterns, create my own connections, and assess my progress
<i>Synthesis</i>	
<i>Analysis</i>	
-----	
<i>Application</i>	I narrate what happened
<i>Comprehension</i>	
<i>Knowledge</i>	

Too many students see education as something that happens to them



- Externally - they fail to see its relevance in their lives
- Internally - they never understand how they learn nor develop the skills to monitor their progress

How do we create a secondary program with **reflection?**

- Bloom's Evaluation**
- A student reflects and evaluates:
1. I can judge if this information and these skills are appropriate to my goals.
  2. I can appraise the merits of different strategies and problem solving approaches.
  3. I evaluate my own progress as a learner.

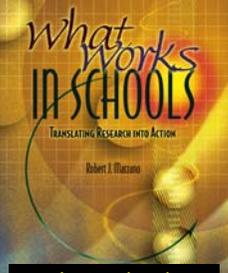
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You will need to purposefully connect students with their learning



1. **What am I learning** today?
2. **Why** am I learning it?
3. **How can I use** this knowledge and these skills to make a difference in my life?
4. **How can I work** with teachers and other students to improve my learning?
5. **How am I progressing** as a learner?



**Robert Marzano:**  
*What Works in Schools*

“35 years of research concretely identifies the factors that are the **primary determinants of student achievement.**”

*Robert J. Marzano, What Works in Schools: Translating Research into Action, 2003*

Instructional strategies that work

We'll focus on three strategies

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

Reading Elements	
1. Direct, explicit comprehension instruction	X
2. Effective instructional principles embedded in content	X
3. Motivation and self-directed learning	X

Learning strategies are tools.

What's in the toolbox?



**Strategy #1:**  
*Defining negotiating meaning*

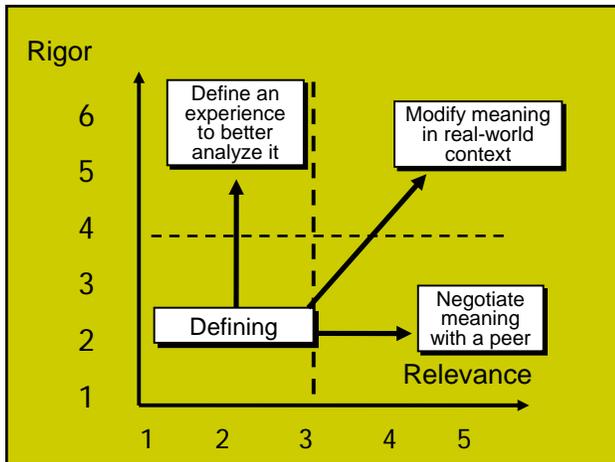


My school has agreed on a set of common defining strategies to use with our students

3%	1. Strongly Agree
8%	2. Agree
45%	3. Disagree
45%	4. Strongly Disagree

# Rigor, Relevancy and Literacy for Middle School Teachers

## ODE Summer Conference 2007



### 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**

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

### Negotiating meaning: "Adolescent"

- Work in a small group to develop a definition for "Adolescent"
- Work together until you can agree on a definition
- Group roles
  - "Definers" (2 or 3 of you) discuss possible meaning
  - "Recorder" captures evolving meaning

**Adolescent**, n.,  
a 24-year old too busy playing Halo 2 on his Xbox or watching SpongeBob at his parents' house to think about growing up.

Adolescent



### 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

# Rigor, Relevancy and Literacy for Middle School Teachers

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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

Increase rigor and relevance with a personal vocabulary notebook

Term:
“My” definition:
Dictionary Definition:
Comparison:

Reading for Academic Success – Strong and Silver

Reading: “Letters from a Birmingham Jail” Martin Luther King Jr

Term: <i>Segregation</i>
“My” definition: <i>A time when African-Americans used to have separate schools</i>
Dictionary Definition:
Comparison:

This student has a good understanding for the meaning of “segregation.”

8%	1. Strongly Agree
37%	2. Agree
53%	3. Disagree
3%	4. Strongly Disagree

Term: <i>Segregation</i>
“My” definition: <i>A time when African-Americans used to have separate schools</i>
Dictionary Definition: <i>The policy or practice of forcing racial groups to live apart from each other</i>
Comparison: <i>I thought of segregation more as a time period, but the dictionary calls it a practice or policy</i>

Be sure to consider the use of familiar terms in a specialized context

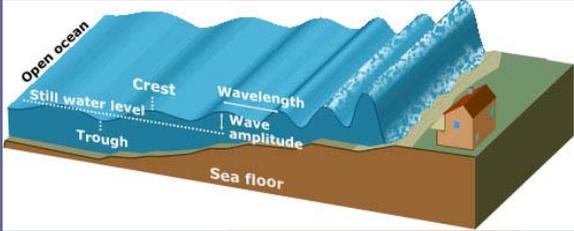
- Identify **key words** in passage
- Ask students to read the passage with **special attention to the context** in which the term is used
- Ask students to discuss **how the author has used the term** in this specific context
- Ask them to **refine** their **preliminary definition** of the word

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Refining meaning in an academic discipline ...  
"Model"



Model of how a tsunami develops

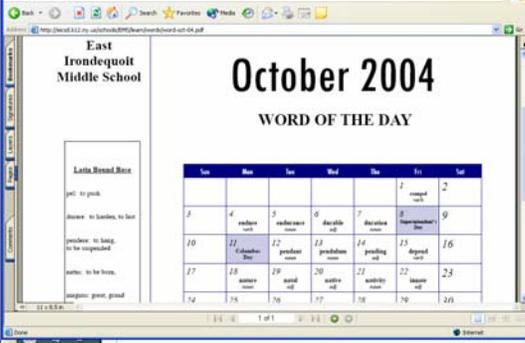


How does it compare to the dictionary definition?

**Model - n.**

1. a standard or example for imitation or comparison.
2. a representation, generally in miniature, to show the structure or serve as a copy of something.
3. a person or thing that serves as a subject for an artist, sculptor, writer, etc.
4. a person, esp. an attractive young woman, whose profession is posing with, wearing, using, or demonstrating a product for purposes of display or advertising.
5. a pattern or mode of structure or formation.

Teamwork! Organize a school or department academic vocabulary list



Latin Bound Base	Mon	Tue	Wed	Thu	
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 h
magnus: great, grand	25 magnificent adj	26 magnify verb	27 magnanimous adj	28 magnitude noun	29 un

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!

Consider having students keep records of their own progress

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### Tracking Vocabulary Progress

Rubric Level	Description
4	I understand even more about the term than what I was taught. I know multiple meanings.
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.

My Understanding Rubric 4 | 3 | 2 | 1

Term: *Segregation*

"My" definition: *A time when African-Americans used to have separate schools*

Dictionary Definition: *The policy or practice of forcing racial groups to live apart from each other*

Comparison: *I thought of segregation more as a time period, but the dictionary calls it a practice or policy*

Student Progress Chart Unit 2  
Student Name \_\_\_\_\_ Date \_\_\_\_\_

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

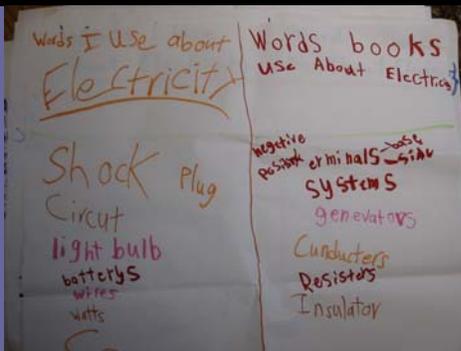
Building Academic Vocabulary - Bob Marzano

Check for understanding - 4<sup>th</sup> graders midpoint in unit on electricity



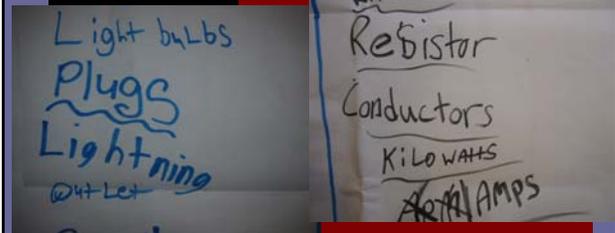
If you were discussing electricity, what words would you use?

What words might you find in a book about electricity?



Words I use

Words I'd find in a book



In 15 minutes teacher got insight into what they knew, recognized (with some uncertainty) or never made it on either list.

Conclusion - "They know more than I thought about electricity!"

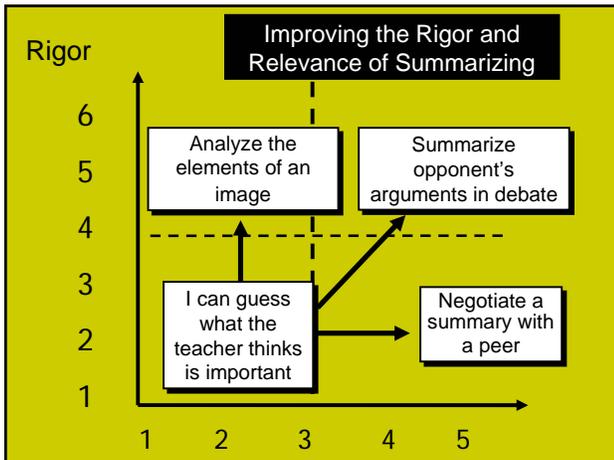
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**Defining: A chance for reflection**

1. How is the term **related to previous subject matter** I have studied?
2. What's **something in my life** I can associate with the term?
3. How the term is **used in real-life situations**?
4. How has my **understanding** of the term evolved?

**Strategy #2: Summarizing synthesis and judgment**



**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**

**Summarizing is an essential reading skill**

*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

**Summarizing skills include:**

- **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?

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## More summarizing 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?

## Which summarizing skills would be most challenging for your students You can pick 2

- 4% 1. Identify details
- 6% 2. Recognizing context
- 17% 3. Identify relationships
- 19% 4. Identify opinions
- 49% 5. Infer meaning
- 4% 6. Make predictions

## Two essential components of teaching effective summarizing skills

1. Introduce material to be summarized – its structure and what students should expect to learn from it.
2. Allow them to make their own judgements about what is important. (Instead of simply asking them to repeat the details we've identified.)

## Writing a summary matched to text structure

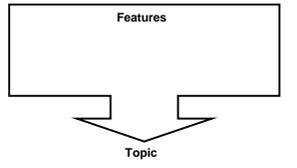
Recognizing how a piece of writing is organized helps to summarize it

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

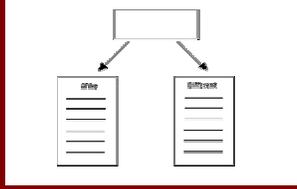
Critical Strategies for Academic Thinking and Writing  
by Mike Rose, Malcolm Kiniry

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

## Description: listing characteristics, features, and examples

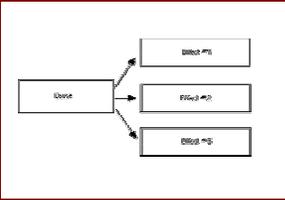


## Comparison: how two or more things are alike or different

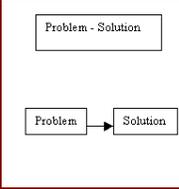


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**Cause and Effect:**  
one or more causes and the resulting effect or effects



**Problem and Solution:** States a problem and lists one or more solutions for the problem

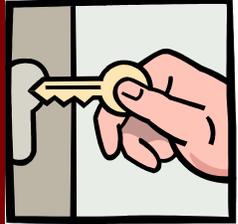


If we expect our student to synthesize the essential information, do we help them set a purpose for their reading?

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:
  - **New vocabulary** that they will encounter
  - **Text features** – headings, bold face, images, data, graphs, footnotes
  - **Reading tips** – skim, make predictions, summarize, organize details, take notes

READING STRATEGIES FOR THE CONTENT AREAS

READING ASSIGNMENT PLANNING

Reading Assignment: \_\_\_\_\_

Purpose/Expected Results: \_\_\_\_\_

Vocabulary: \_\_\_\_\_

From Reading Strategies in the Content Areas  
ASCD, 2003

Summarizing is an active task calling for more than accuracy

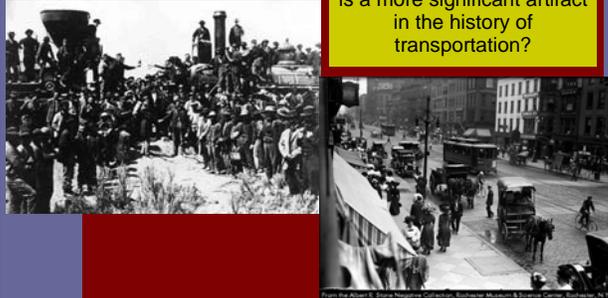
- Calls for active, **creative thinking** and writing.
- Engages student **judgment**.
- Works in **coordination with other strategies**.

*Example: use a summary when making a comparison*



Summarizing - synthesis and judgment

Which of these two images is a more significant artifact in the history of transportation?



From the Robert H. Johnson Program on Cultural, Economic, Museum, & Social Change, Baltimore, MD

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Which of these two images is a more significant artifact in the history of US transportation?

38% 1. Golden Spike

62% 2. Street scene



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

Getting the **visual message** right

*“So what the artist is saying is...”*

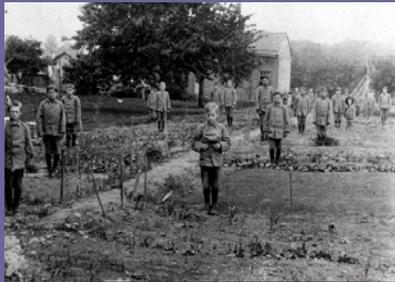
Getting the **spoken message** right

*“So what you’re saying is...”*

Getting the **written message** right

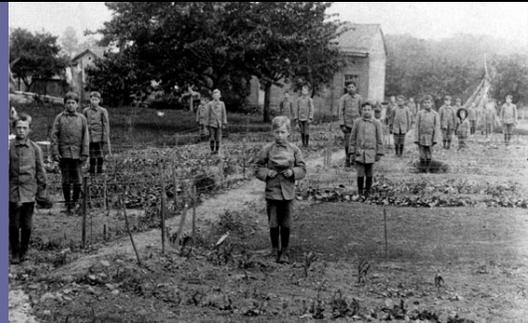
*“So what the author is saying is ...”*

Use images to teach how to summarize and use inference



- Study the image for 2 minutes. Form an overall impression of the image and then examine individual items.
- Next, divide the image into sections and study each to see what new details become visible.
- List **people, objects, and activities** in the image.

Increase rigor with inference - Based on what you have observed, list three things you might infer from this image.



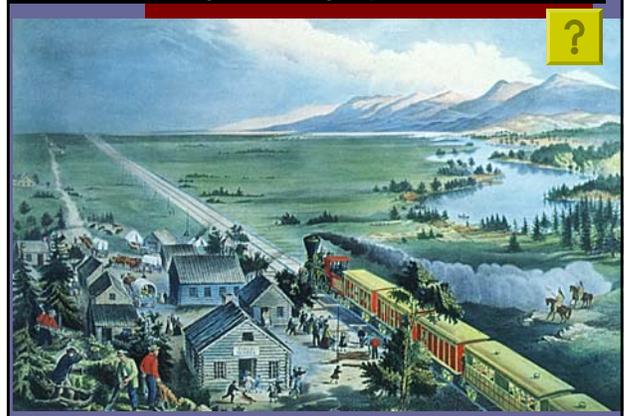
What questions does this image raise?  
Where could you find answers to them?

## Differentiate the objective

Using the visual document supplied by the teacher

- Identify - **comprehension**
- Compare - **analysis**
- Draw your version - **synthesis**
- Judge based on criteria - **evaluation**

Use images to investigate point of view



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Is the artist's depicting:

- 38% 1. A positive situation
- 35% 2. A negative situation
- 28% 3. No point of view expressed



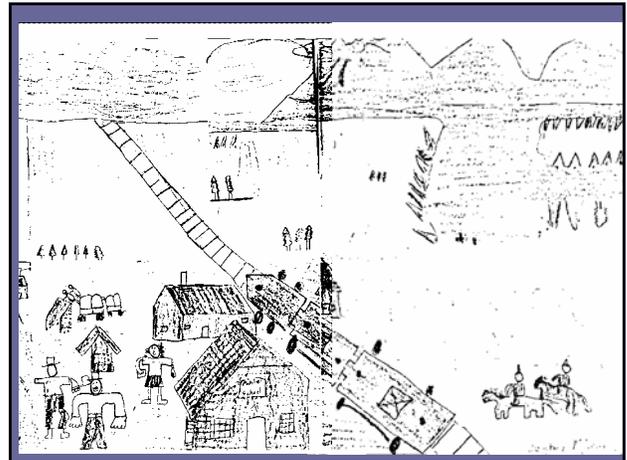
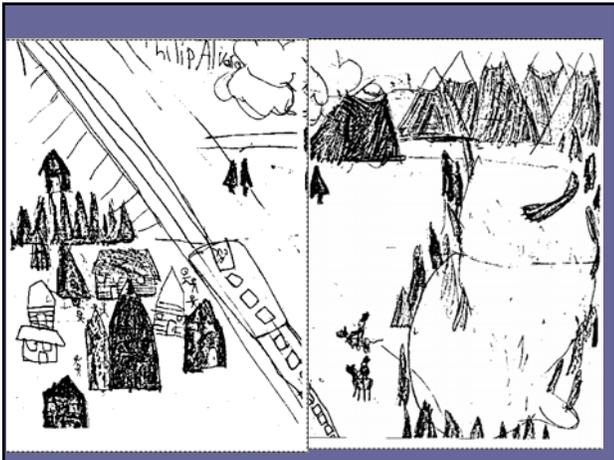
## "Westward the Course of Empire Takes Its Way."

Frances F. Palmer (hand colored) lithograph, 1868

In the latter half of the nineteenth century, the American lithography firm operated by Nathaniel Currier (1813–1888) and his brother-in-law, James Merritt Ives (1824–1895), produced over a million impressions of more than 7,000 popular depictions of American life.

It is estimated that 95 percent of all prints sold throughout that era were created by Currier & Ives.

This was one of their most popular prints.



Ideas 2<sup>nd</sup> graders talked about

1. Water would come from the mountain and fill the lake. You could get fish and drinking water. Water is very important
2. People were moving west. They moved by wagon at first, then but train, which is faster.
3. Life was tough. People had to do everything for themselves.
4. The Indian could see the people coming. They knew their lives were changing
5. The railroad seemed to divide the old way of life from the new way of life.

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



# Rigor, Relevancy and Literacy for Middle School Teachers

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

### Summarizing: A chance for reflection

1. Is the summary **accurate**?
2. Did the summary **match audience / purpose**?
3. Did they use **my own words and style**?
4. What did **I learn** from the summarizing?

### Strategy #3: Comparing / Classifying

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 characteristics of mammals

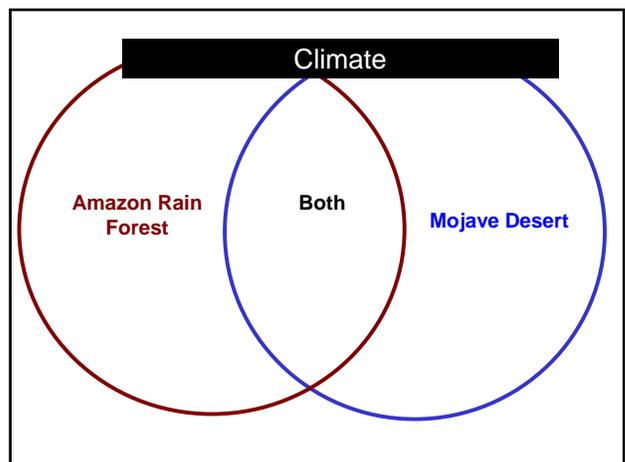
Case 2:  
 Teacher lectures and then students do exercise comparing the essential characteristics of mammals to birds

**+ 45% gain in content mastery**

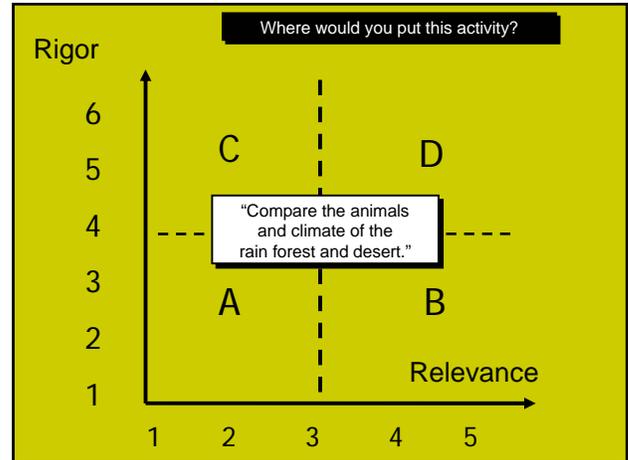
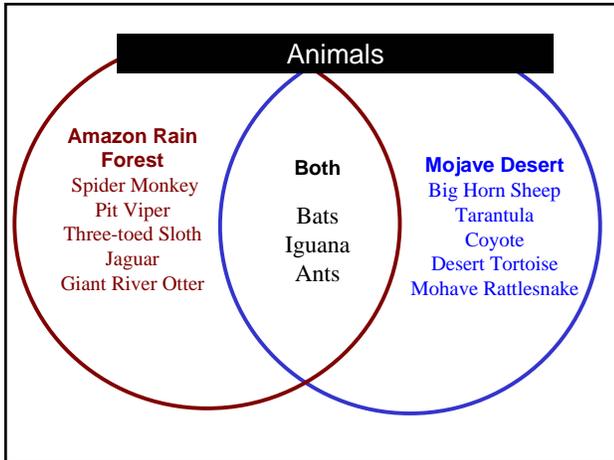
**"Compare the animals and climate of the rain forest and desert."**

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*



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In which quadrant would you put this activity?

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

8% A. Quadrant  
24% B. Quadrant  
68% C. Quadrant  
0% D. Quadrant

Who is doing the comparing in this exercise?  
*The teacher or the student?*

- Who selected the information?
- Who decided on the categories?
- Who designed the graphic organizer?
- What's the purpose of the comparison? (What does it enable us to do or see?)

Is this really an exercise in memorizing and repeating information?

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.

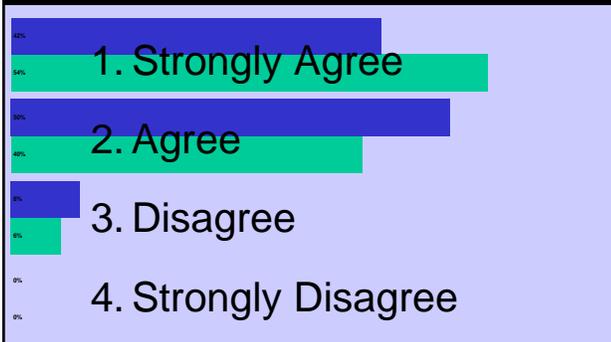
I think that a eighth grader would be able to independently design a comparison

42% 1. Strongly Agree  
50% 2. Agree  
8% 3. Disagree  
0% 4. Strongly Disagree

# Rigor, Relevancy and Literacy for Middle School Teachers

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I think that most desirable jobs in the 21<sup>st</sup> workplace will require **critical thinkers** who can **independently problem solve**.



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?

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



Design comparison  
Select characteristics  
Rating system

Do we give students the chance to design classification systems?



"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.



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**?

# Rigor, Relevancy and Literacy for Middle School Teachers

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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 an Mp3 Player	Criteria		
	Cost	Battery	Memory
iPod			
Creative Zen			
Zune			

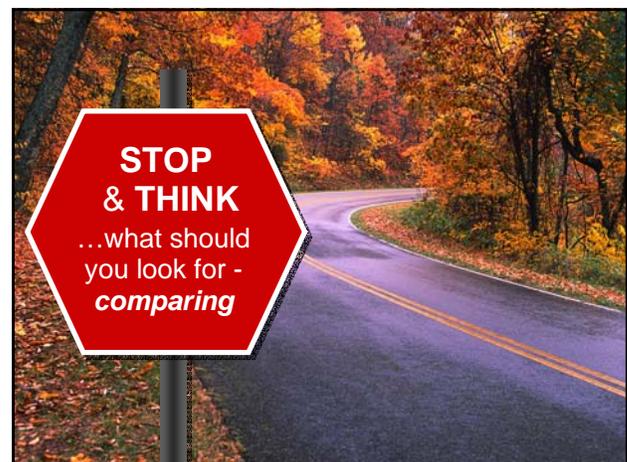
What criteria will you use?  
Are they of equal importance?  
How can your evaluations be quantified?

### Two essential elements of comparing

1. Do we ask students to develop the comparison, or merely learn and repeat the comparison model that was presented to them?
2. Does the comparison serve as a catalyst for a deeper understanding of the material?

### Comparing: a chance for reflection

- What information did compare?
- How did I structure the comparison?
- In what ways was the comparison useful to me?
- What did I learn from it?



Rigor, Relevancy and Literacy for Middle School Teachers  
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What skills will the 21<sup>st</sup> century workplace require?

Literacy / numeracy

Self-discipline

Creativity

Adaptability – they must be independent learners



When do we stop modeling for the students and relinquish responsibility for their learning?

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, ....**

Let's look at a middle school lesson that allow student to "be the historian?"

- Sample lesson designed to incorporate **rigor relevance and reflection.**
- Supports literacy in the content area
- We'll study the lesson and inventory the **skills** and "**habits of mind**" that students will need to participate.

Sample Lesson *Homefront WW II*

Review the lesson and inventory for:

- Rigor?
- Relevance?
- Reflection?
- Support for Literacy?



Connect students with the task

**Think Before You Start**

Before you begin this lesson, think about and discuss in small groups the following questions.

- What resources are needed to wage a war?
- How could people on the home front help to supply these resources?
- What would you be willing to contribute to a war effort?

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**Document 1**

*During WW II Ray Hartman was a teenager living in Chicago.*

"Everybody was campaigning to sell war bonds. We were using our allowances and paper drives... We'd go door-to-door and ask people to contribute dimes and quarters and fill up a book of stamps and buy the bonds. The goal of the school was to raise \$80,000 to purchase a P-38 fighter plane... [A]fter probably eight or nine months of work, we were successful... Alphonus was the name of the school, but they named the plane "The Spirit of Saint Alf." We went to some Douglas Aircraft Company when they painted the name on the plane. I was thrilled, being the chairman of the student drive. I did the ribbon cutting... There were pictures taken with a couple of air force men who were pilots dressed in their uniforms, so it was a thrill."

— From Roy Hoopner, *America Remembers the Home Front*

**Document 2**



**Document 3**

Military Service and Unemployed	1940	1941	1942	1943	1944	1945	1946
Active Military Service (millions)	0.4	1.8	3.8	9	11	12	3
Unemployed Workers (millions)	8.1	5.5	2.6	1	0.6	1	2.2

Source: Statistics of the U.S. Bureau of the Census, 1977

Keep students focused on constructing meaning with guided questions



Learning strategies are tools.

Students need to be given a chance to "build" something with them.



**Defining**  
**Summarizing**  
**Comparing**

Strategies for teaching defining skills

1. Connect new vocabulary with prior knowledge
  - What students think they know
  - Brainstorm their own explanations of terms
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

Middle School Defining exercise: *Homefront*

Work with a partner to develop your own definition for the term "victory garden."

What information in the documents helps you to understand the term?



Vocabulary Notebook

Term: *Segregation*

"My" definition: *A time when African-Americans used to have separate schools*

Dictionary Definition: *The policy or practice of forcing racial groups to live apart from each other*

Comparison: *I thought of segregation more as a time period, but the dictionary calls it a practice or policy*

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What is the earliest grade that a pair of students could “negotiate” a preliminary definition, look up in dictionary and compare their definition to the dictionary?

- 41% **1. First grade**
- 9% **2. Second grade**
- 32% **3. Third grade**
- 9% **4. Fourth grade**
- 6% **5. Fifth grade**
- 3% **6. Sixth grade**
- 0% **7. Seventh grade**

Two essential components of teaching effective summarizing skills

1. Introduce material to be summarized – its structure and what students should expect to learn from it.
2. Allow them to make their own judgements about what is important. (Instead of simply asking them to repeat the details we’ve identified.)

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

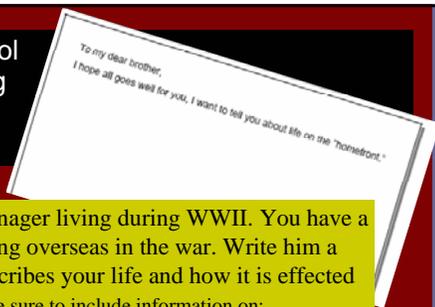
What is the earliest grade that students trained in text structure could do a preliminary scan of a text and accurately identify the structure?

- 3% **1. First grade**
- 10% **2. Second grade**
- 33% **3. Third grade**
- 43% **4. Fourth grade**
- 7% **5. Fifth grade**
- 3% **6. Sixth grade**
- 0% **7. Seventh grade**
- 0% **8. Eighth grade**

Middle School Summarizing exercise:  
*Homefront*

You are a teenager living during WWII. You have a brother fighting overseas in the war. Write him a letter that describes your life and how it is effected by the war. Be sure to include information on:

- Life at home, school, your part-time job, volunteer activities you are doing.
- Homefront activities going on in your community.
- Your feelings about the war.
- How you feel about your contribution to the war effort.



Strategies for teaching comparing skills

1. Ask students to develop the comparison, not merely learn and repeat the comparison model that was presented to them.
2. Use the comparison as a catalyst for a deeper understanding of the material.

# Rigor, Relevancy and Literacy for Middle School Teachers

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**Middle School Comparison exercise: Homefront**



Since 2001, the United States has fought wars in Afghanistan and Iraq.

1. How have Americans on the homefront contributed to the effort?
2. How do those efforts compare with the homefront in WWII?
3. Design a graphic organizer to share your conclusions

What is the earliest grade that students could independently develop their own comparison and tell us what they learned from it?

33%	1. First grade
17%	2. Second grade
8%	3. Third grade
17%	4. Fourth grade
8%	5. Fifth grade
14%	6. Sixth grade
0%	7. Seventh grade
3%	8. Eighth grade

Using student reflection to support rigor and relevance

What is the earliest grade that students could pick a strategy, evaluate it's effectiveness, and tell what they learned from the process?

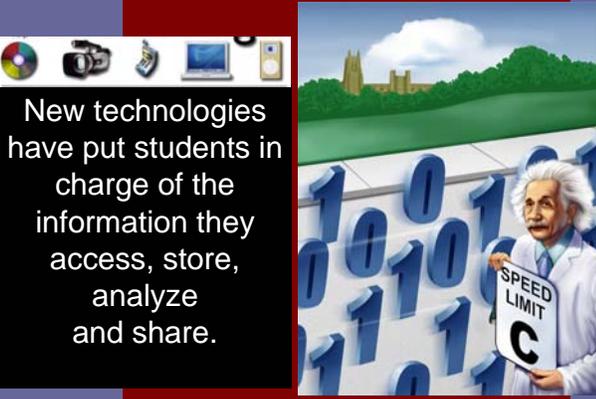
21%	1. First grade
6%	2. Second grade
9%	3. Third grade
30%	4. Fourth grade
12%	5. Fifth grade
18%	6. Sixth grade
0%	7. Seventh grade
3%	8. Eighth grade

Life has become an open book test.

Literacy in the 21<sup>st</sup> 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. *David Warlick*

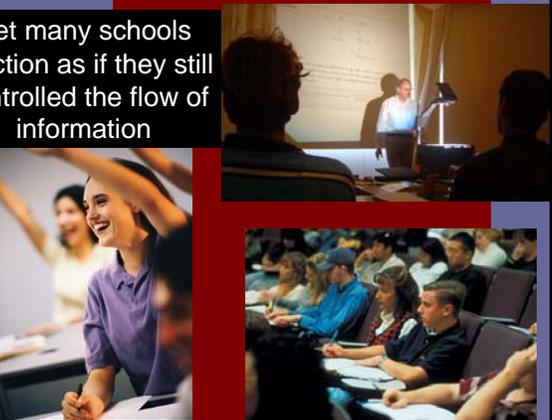


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New technologies have put students in charge of the information they access, store, analyze and share.

Yet many schools function as if they still controlled the flow of information



## Student motivation?

#1 factor for improving student motivation is **choice**.

**Not whether** the student does the assignment, **but how** they engage in the work.

~Doug Reeves

What skills will the 21<sup>st</sup> century workplace require?

*Literacy / numeracy*

*Self-discipline*

*Creativity*

**Adaptability – they must be independent learners**



The workshop successfully “modeled” an approach based on rigor, relevance and reflection.

37%	1. Strongly Agree
57%	2. Agree
3%	3. Disagree
3%	4. Strongly Disagree

The workshop gave practical strategies teachers can use in the classroom

42%	1. Strongly Agree
50%	2. Agree
8%	3. Disagree
0%	4. Strongly Disagree

Rigor, Relevancy and Literacy for Middle School Teachers  
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