Leading for Rigor, Relevance and Literacy

Peter Pappas

Essential Skill: Instructional Leadership

1. Reflect on your school's vision for instruction
2. Introduction to rigor and relevance –sample lessons in defining, summarizing and comparing
3. Support literacy while improving content knowledge
4. Foster a more engaging student-centered classroom

The central questions leadership must address

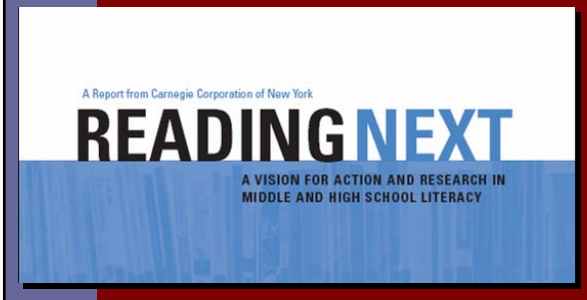
"Has our school forged a common vision of teaching and learning?"

"How have we organized to accomplish this vision?"

Workshop 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 we 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

Literacy - constructing meaning



We'll focus on how you can use Reading Elements while teaching the 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

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Variety of workshop models:
- Keynotes
- Conference presentation
- Community outreach
- Faculty - interdisciplinary
- Train-the-trainer
- One-day, multi-day, long term

www.peterpappas.com

Links to:
Showcase of projects
Presentations and Clients
Resources

Audience Response System courtesy of:

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

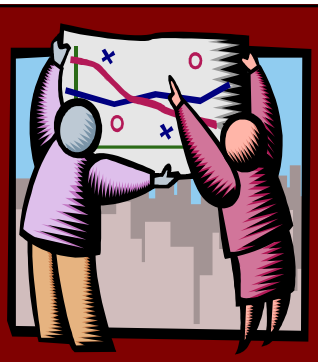
Feather is to peacock as scale is to:

3%	1. shark
96%	2. bass
0%	3. dolphin
1%	4. whale

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

34%	1. Sponge – I'll soak it up
40%	2. Pioneer – I'm quick to adopt new ideas
18%	3. Skeptic – Better convince me
6%	4. Vacationer – I'm treating this as a break
2%	5. Prisoner – They're making me go to this

Rigor and Relevance in the 21st 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 is the earliest that students can do 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.

47%	1. Ages 1-2
44%	2. Ages 3-4
4%	3. Kindergarten
4%	4. Grade 1 - 2
1%	5. Grade 3 - 4
0%	6. Grade 5 - 6

Higher-level thinking skills

Complex use of knowledge

In School:
Teacher-directed

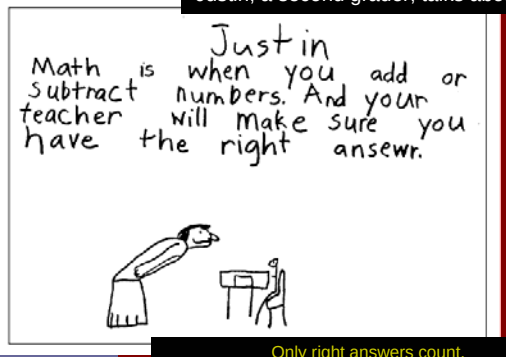
Defined tasks

In life:
Self-directed

Adaptable / fluid

Recall of knowledge

Justin, a second grader, talks about math



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

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

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 8th graders who took a NAEP math test answered

"6 remainder 20"

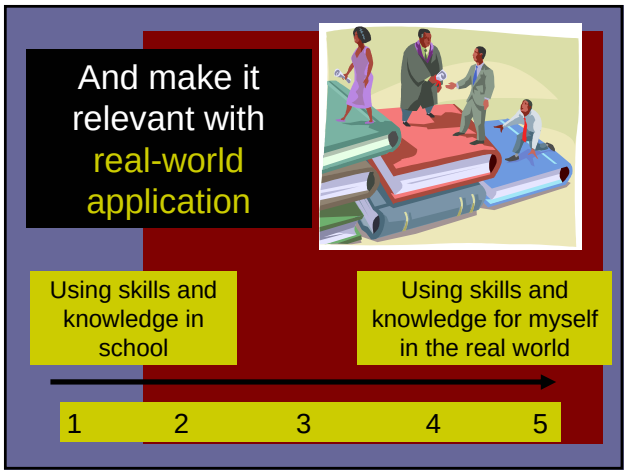
From a high school valedictorian:

"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

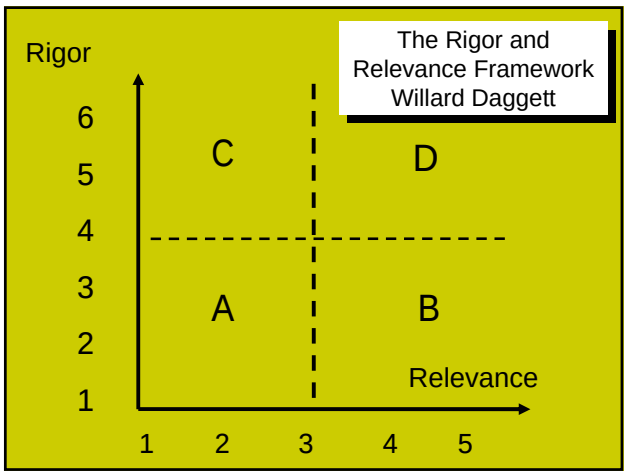


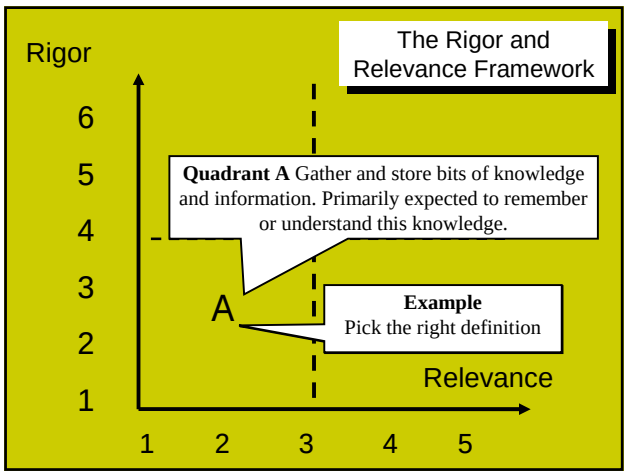
Relevance

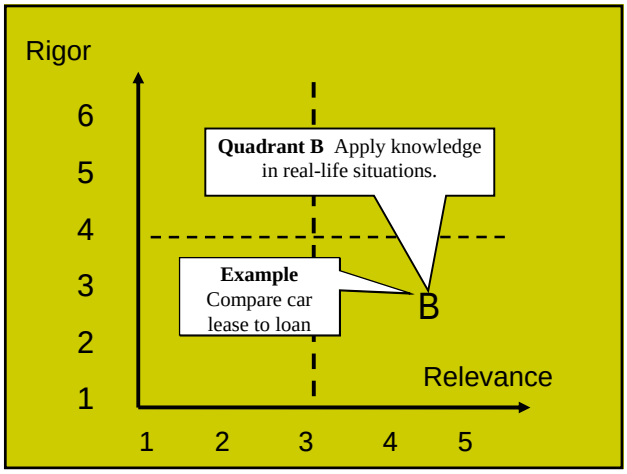
1. I understand how this information or skill has some application in life.

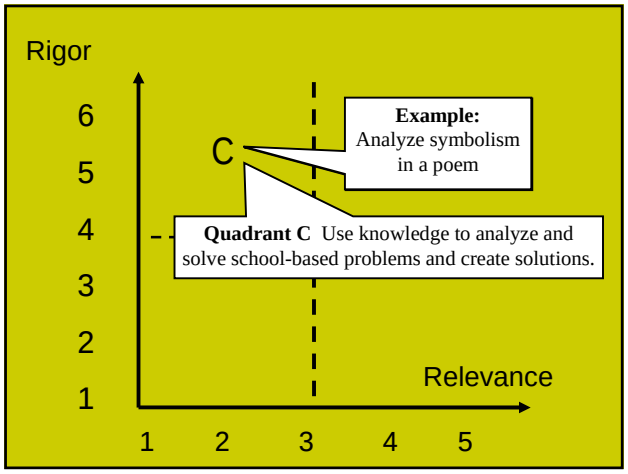
2. I have an opportunity to construct my own understanding rather than just learn "the facts."

3. In addition to learning content and skills, I am learning how to learn .

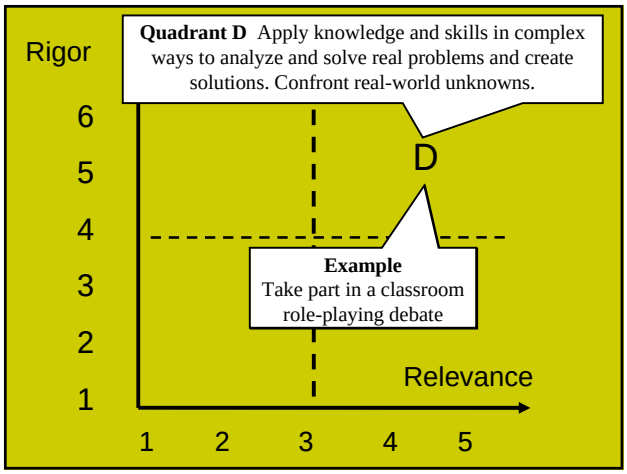


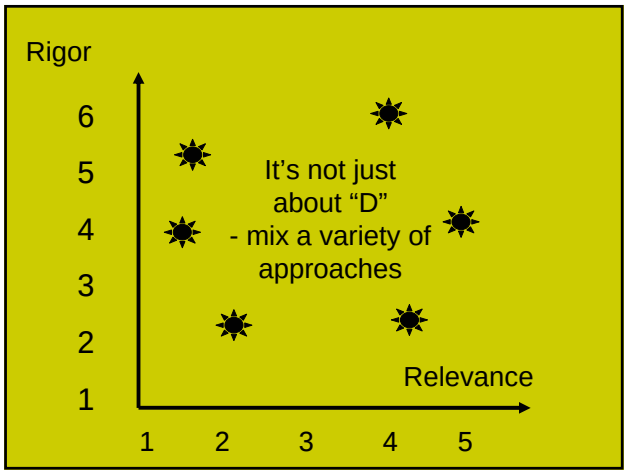


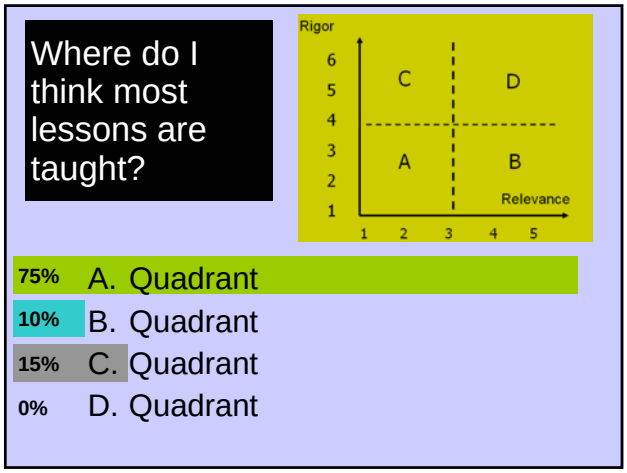


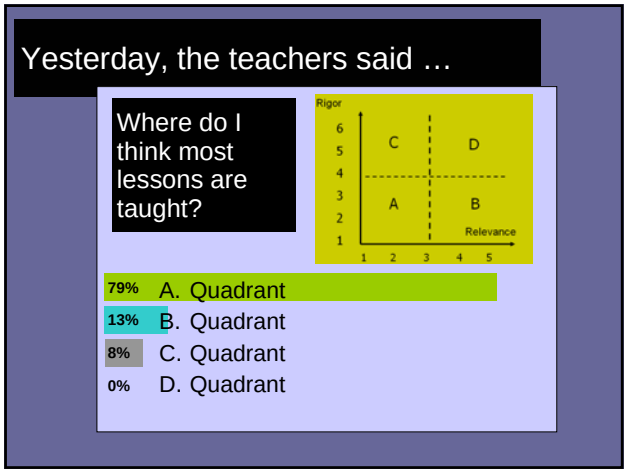


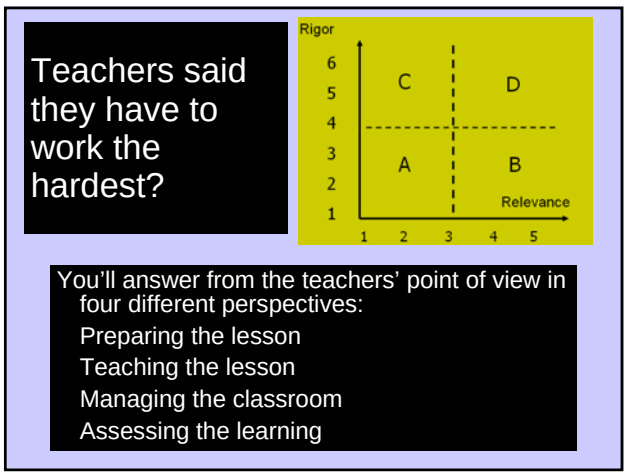
Leading for Rigor, Relevancy and Literacy
ODE Summer Conference 2007

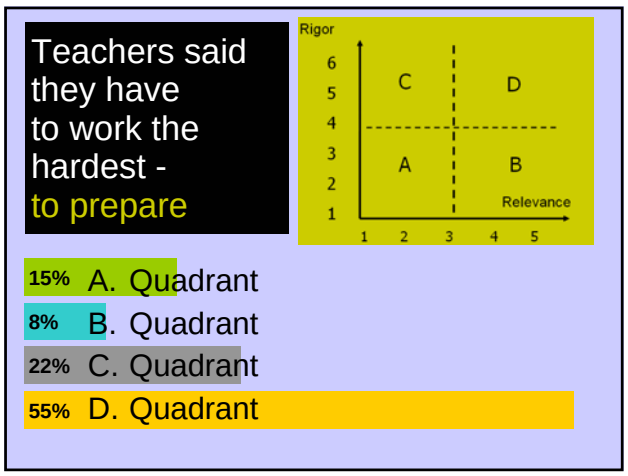








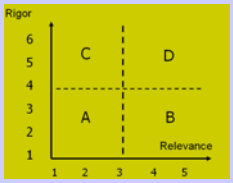




by Peter Pappas ~ www.peterpappas.com

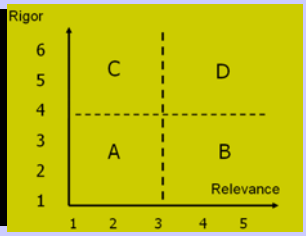
Yesterday, the teachers said …

The teacher has to work the hardest - to prepare?



26% A. Quadrant
0% B. Quadrant
30% C. Quadrant
44% D. Quadrant

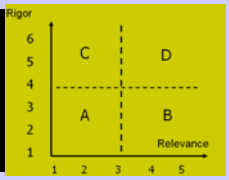
Teachers said they have to work the hardest - to teach the lesson



19% A. Quadrant
19% B. Quadrant
30% C. Quadrant
32% D. Quadrant

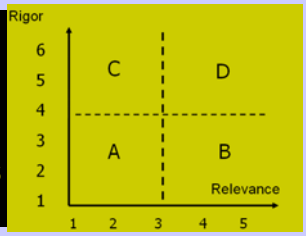
Yesterday, the teachers said …

The teacher has to work the hardest - to teach the lesson?



42% A. Quadrant
13% B. Quadrant
34% C. Quadrant
11% D. Quadrant

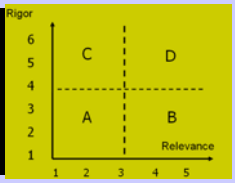
Teachers said they have to work the hardest - to manage students



50% A. Quadrant
10% B. Quadrant
9% C. Quadrant
30% D. Quadrant

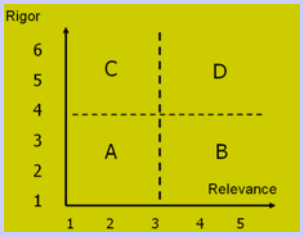
Yesterday, the teachers said …

The teacher has to work the hardest - to manage students?



29% A. Quadrant
12% B. Quadrant
14% C. Quadrant
45% D. Quadrant

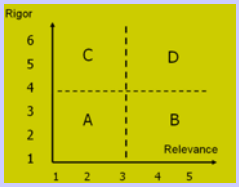
Teachers said they have to work the hardest - to evaluate student learning.



18% A. Quadrant
8% B. Quadrant
9% C. Quadrant
64% D. Quadrant

Yesterday, the teachers said …

The teacher has to work the hardest - to evaluate student learning?



- 13% A. Quadrant
- 10% B. Quadrant
- 13% C. Quadrant
- 65% D. Quadrant

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

The measure of rigor and relevance.
Ask students these questions during your next observation.

1. What is the **purpose** of this lesson?
2. Why is this **important** to learn?
3. In what ways am **I challenged to think** in this lesson?
4. How will **I apply, assess, or communicate** what I've learned?
5. How will **I know how good my work is** and how **I can improve it**?

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

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

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**?

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:

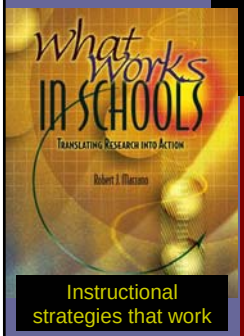
1. I can judge if this information and these skills are appropriate to my goals.

2. I can appraise the merits of different strategies and problem solving approaches.

3. I evaluate my own progress as a learner.

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?



Instructional strategies that work

Robert Marzano: *What Works in Schools*

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

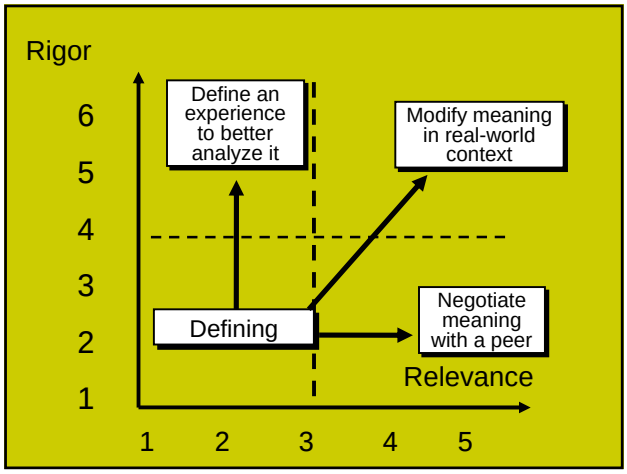
Robert J. Marzano, What Works in Schools: Translating Research into Action, 2003

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

Strategy #1: Defining *negotiating meaning*



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**

Negotiating meaning: "Adultescent"

- Work in a small group to develop a definition for "Adultescent"
- Be prepared to share with the group

Adultescent , 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.

Adultescent

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

Increase rigor and relevance with a personal vocabulary notebook

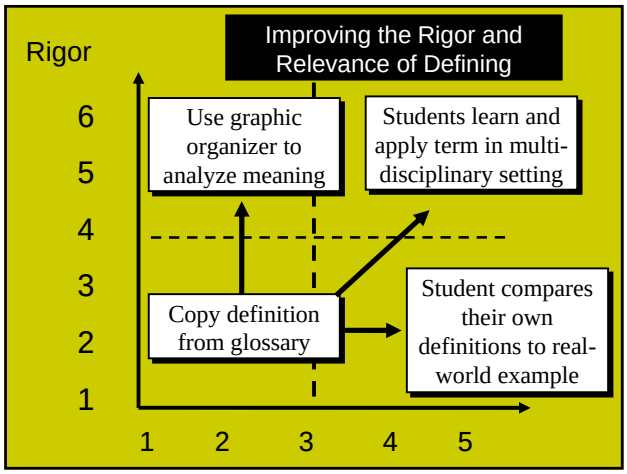
Term:
"My" definition:
Dictionary Definition:
Comparison:

Reading for Academic Success ~ Strong and Silver

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*

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?

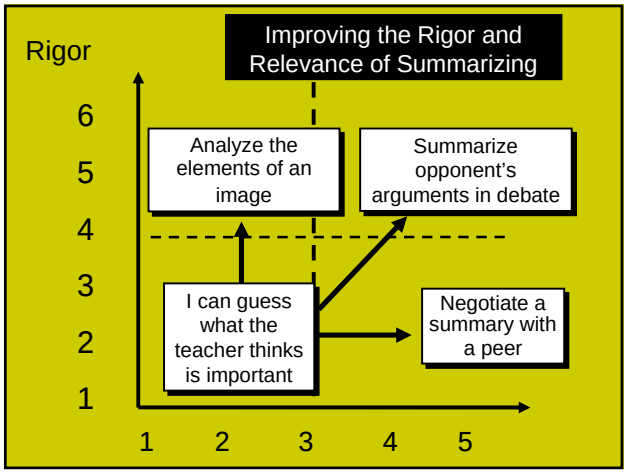
48%	1. First grade
30%	2. Second grade
18%	3. Third grade
4%	4. Fourth grade
0%	5. Fifth grade
0%	6. Sixth grade
0%	7. Seventh grade
0%	8. Eighth grade



Defining: A chance for reflection

1. How is the term is **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

+ 34% gain in content mastery

Case 2:
Teacher lectures and then students do a summarizing exercise on the essential characteristics of mammals

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?

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

3% 1. **Identify details**
11% 2. **Recognizing context**
12% 3. **Identify relationships**
17% 4. **Identify opinions**
42% 5. **Infer meaning**
16% 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

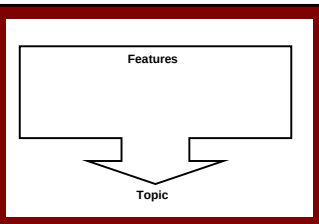
Recognizing **how a piece of writing is organized** helps to summarize it

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

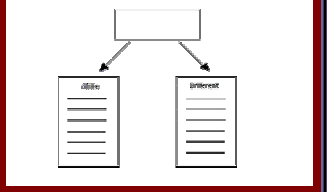
Critical Strategies for Academic Thinking and Writing by Mike Rose, Malcolm Kiniry

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

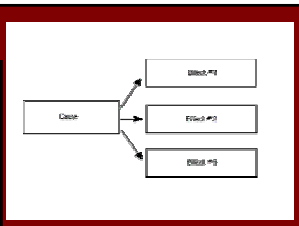
Description: listing characteristics, features, and examples



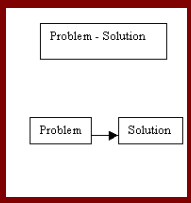
Comparison: how two or more things are alike or different



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

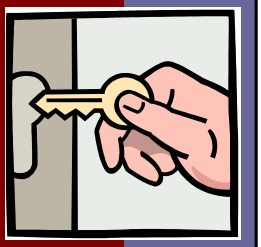


If we expect our student to synthesize the essential information, do we help them set a purpose for their reading?

Think of purpose we set for our reading

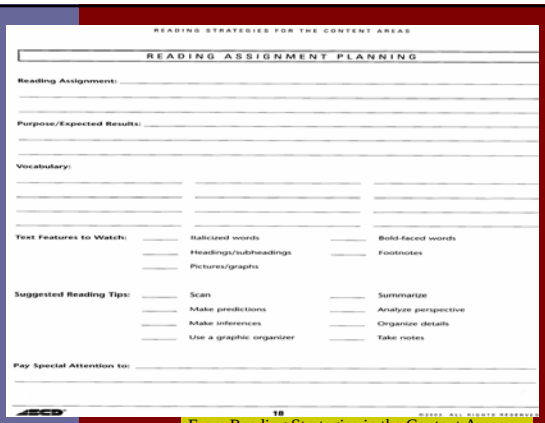
Students need to know what they should expect to learn

- 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:

Text Features to Watch: Italicized words, Bold-faced words, Headings/subheadings, Footnotes, Pictures/graphs

Suggested Reading Tips: Scan, Summarize, Make predictions, Analyze perspective, Make inferences, Organize details, Use a graphic organizer, Take notes

Pay Special Attention to:

From Reading Strategies in the Content Areas
ASCD , 2003

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

32%	1.	First grade
27%	2.	Second grade
33%	3.	Third grade
6%	4.	Fourth grade
3%	5.	Fifth grade
0%	6.	Sixth grade
0%	7.	Seventh grade
0%	8.	Eighth grade

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

Two essential components of teaching effective summarizing skills

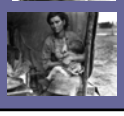
1. Introduce material to be summarized – its structure and what students should expect to learn from it.
2. Allow them to make their own judgements about what is important. (Instead of simply asking them to repeat the details we've identified.)

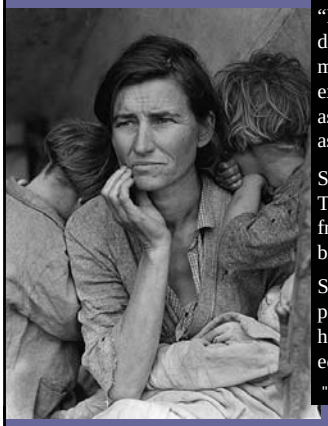
Make it more rigorous and relevant with **Evaluation**

Which photo would you use?
What's in the images? What's left out?

?

Which photo would you select?



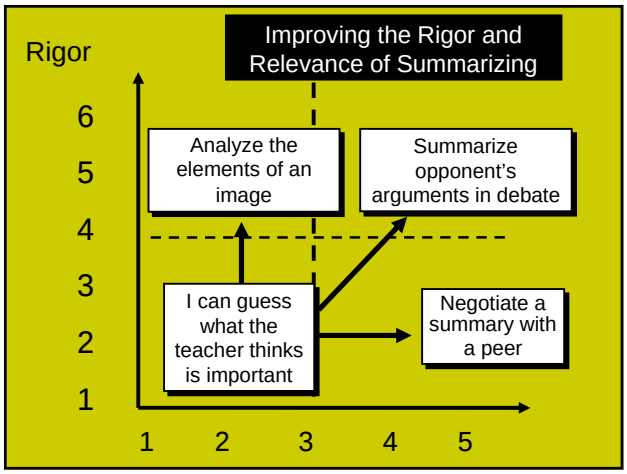


"I approached the hungry and desperate mother, as if drawn by a magnet. I do not remember how I explained my presence … she asked me no questions. … I did not ask her name.

She told me that she was thirty-two. They had been living on vegetables from the surrounding fields, and birds that the children killed.

She seemed to know that my pictures might help her, and so she helped me. There was a sort of equality about it." Dorothea Lange

"Migrant Mother" 1936 Nipomo, California



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

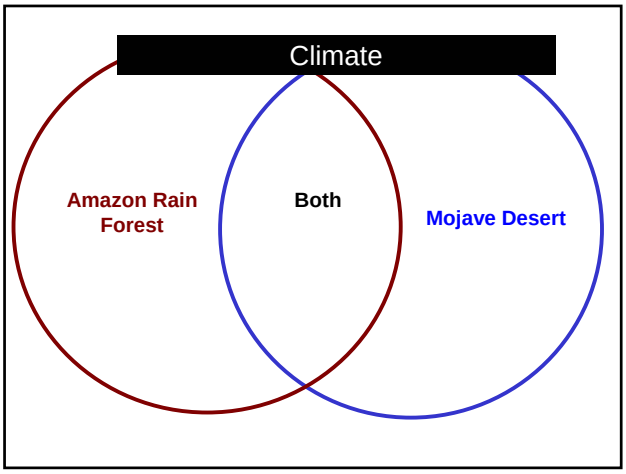
+ 45% gain in content mastery

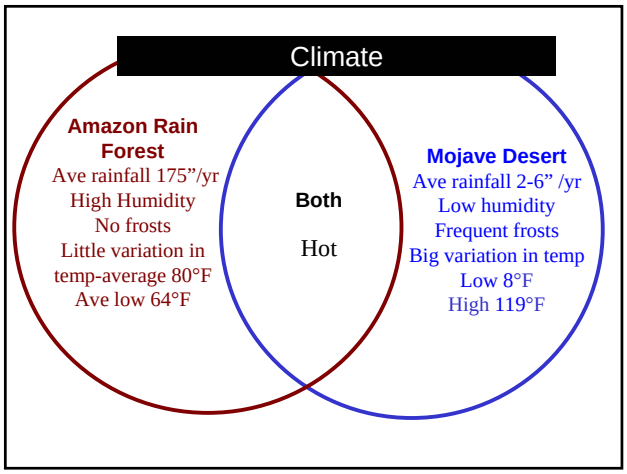
Case 2:
Teacher lectures and then students do exercise comparing the essential characteristics of mammals to birds

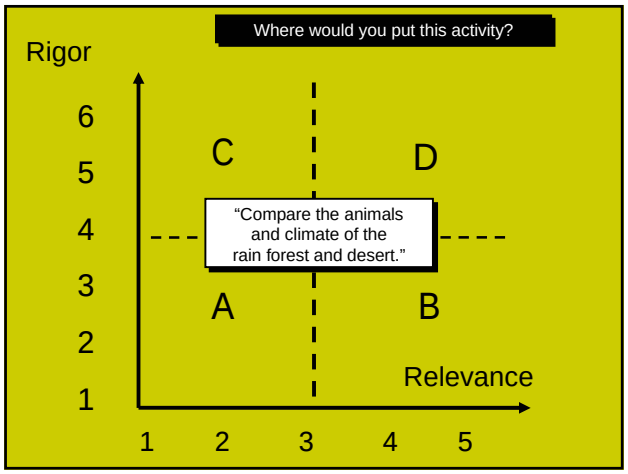
"Compare the animals and climate of the rain forest and desert."

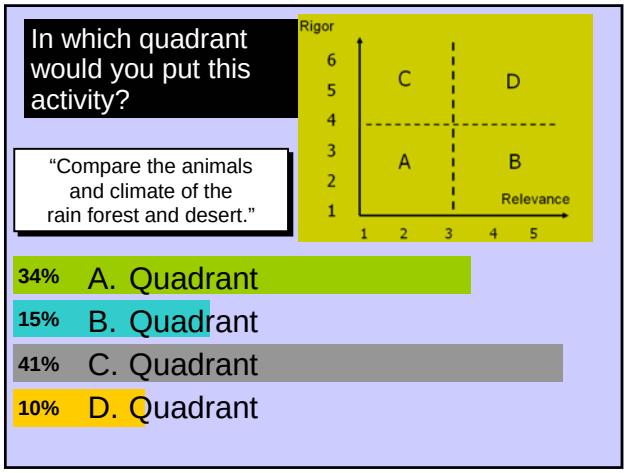
Amazon Rain Forest	Mohave Desert
Ave rainfall 175"/yr High Humidity No frosts Little variation in temp-average 80°F Ave low 64°F Hot Spider Monkey Pit Viper Three-toed Sloth Jaguar Giant River Otter Bats Iguana Ants	Ave rainfall 2-6" /yr Low humidity Frequent frosts Big variation in temp Low 8°F High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

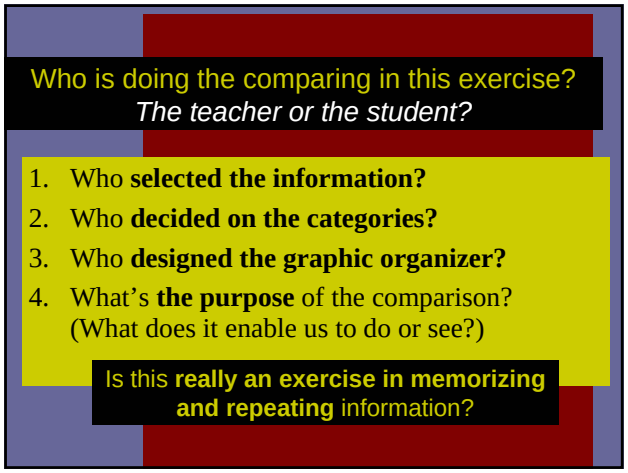
Classroom Instruction that Works, ASCD

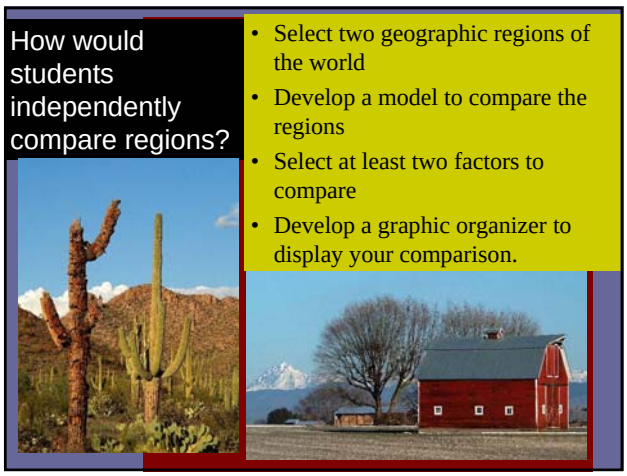


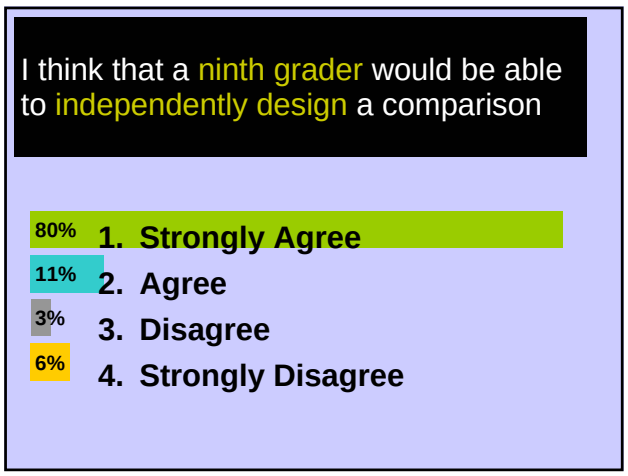

Climate
Amazon Rain Forest
Ave rainfall 175"/yr
High Humidity
No frosts
Little variation in temp-average 80°F
Ave low 64°F
Both
Hot
Mojave Desert
Ave rainfall 2-6" /yr
Low humidity
Frequent frosts
Big variation in temp
Low 8°F
High 119°F


Where would you put this activity?
Rigor
6
5
4
3
2
1
C
D
"Compare the animals and climate of the rain forest and desert."
A
B
Relevance
1
2
3
4
5


In which quadrant would you put this activity?
"Compare the animals and climate of the rain forest and desert."
Rigor
C
D
A
B
Relevance
34% A. Quadrant
15% B. Quadrant
41% C. Quadrant
10% D. Quadrant


Who is doing the comparing in this exercise?
The teacher or the student?
1. Who selected the information?
2. Who decided on the categories?
3. Who designed the graphic organizer?
4. 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 ninth grader would be able to independently design a comparison
80% 1. Strongly Agree
11% 2. Agree
3% 3. Disagree
6% 4. Strongly Disagree

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

1. Strongly Agree
2. Agree
3. Disagree
4. Strongly Disagree

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?

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

Add a peer review of research proposals

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?

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, ….**

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

51%	1. First grade
19%	2. Second grade
19%	3. Third grade
9%	4. Fourth grade
2%	5. Fifth grade
0%	6. Sixth grade
0%	7. Seventh grade
0%	8. Eighth grade

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. *David Warlick*

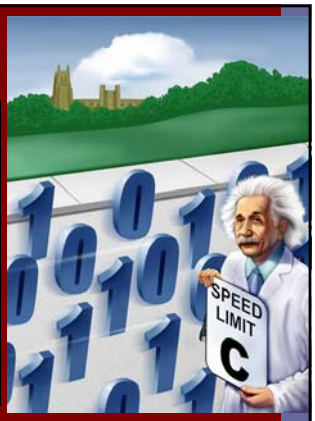
Student motivation?

#1 factor for improving student motivation is choice.

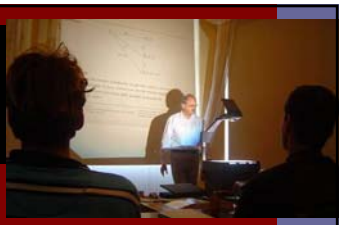
Not whether the student does the assignment, but how they engage in the work.

~Doug Reeves

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



What skills will the 21st century workplace require?

Literacy / numeracy

Self-discipline

Creativity

Adaptability – they must be independent learners

Time for you to reflect and evaluate of the workshop.

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

66%	1. Strongly Agree
33%	2. Agree
1%	3. Disagree
0%	4. Strongly Disagree

The workshop demonstrated some practical strategies for use in the classroom

79%	1. Strongly Agree
20%	2. Agree
1%	3. Disagree
0%	4. Strongly Disagree

The workshop was well-designed and effectively delivered.

82%	1. Strongly Agree
18%	2. Agree
0%	3. Disagree
0%	4. Strongly Disagree

The audience response system fostered reflection and engagement.

86%	1. Strongly Agree
14%	2. Agree
0%	3. Disagree
0%	4. Strongly Disagree