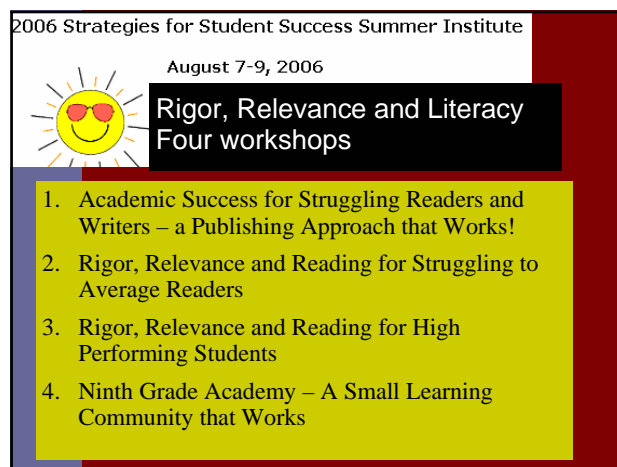
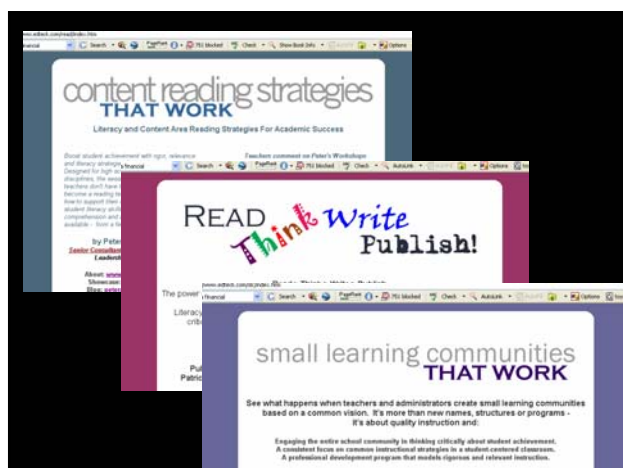


# Strategies for Rigor, Relevance and Reading For High Performing Students



# Strategies for Rigor, Relevance and Reading For High Performing Students

**READING NEXT**  
A VISION FOR ACTION AND RESEARCH IN MIDDLE AND HIGH SCHOOL LITERACY

2006 Superintendent's Summer Institute  
**15 LITERACY ELEMENTS FOR MIDDLE AND HIGH SCHOOL ACHIEVEMENT**

Purpose: To Survey the Elements of Literacy and Determine Strengths and Needs

15 Literacy elements for improving middle and high school achievement	(1) Beginning to Plan	(2) Beginning to Implement	(3) Expanding Rephrase	(4) Continuing to Refine and Refine
1. Develop, expand, and embed comprehensive instruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Effective instructional practices embedded in content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Motivation and self-directed learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Text-based collaborative learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Strategic thinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Use Oregon's Reading and Writing Standards while teaching your subject-specific standards

OREGON  
State Teacher Agency: A.C. About Oregon.gov

Department of Education  
**ODE SEARCH**

Home > Teaching and Learning > REAL Home > Newsletters

Online Oregon Standards Newspaper

**Message from Susan Castillo**

The Oregon Standards newspaper is a wonderful example of the kind of support the Oregon Department of Education is committed to providing to teachers, administrators, and other education leaders. It is a reflection of our larger commitment to academic achievement, and school improvement. Oregon Standards is published each year, at no cost. [Click here to view the 2005-2006 issue.](#)

**What's New in 2005-2006**

- The revised Arts content standards were adopted by the State Board of Education on Oct. 21, 2004. [Click here.](#)
- The new Health Education content standards were adopted by the State Board of Education in February, 2005. [Click here.](#)
- Students in grades 5, 6, and 8-12 now have the opportunity to meet or exceed the standards on the Social Sciences Knowledge and Skills Test. [Click here.](#)
- For 2005-06, a Social Science Analysis Work Sample **must be scored** in the dimensions of Frame and Conclude. [Click here.](#)
- Members of this year's graduating class (2005-06) are the first students required to meet both the

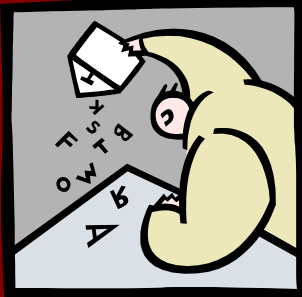
Inside:

- English Language Arts
- English Language, Civics
- Mathematics
- Science
- Social Sciences
- The Arts
- Second Language
- Physical Education
- Health Education
- Oregon Skill Sets
- Career, Technical Education
- Technology


**Partial assembly required**

I'll use examples from many academic areas, grades and student ability levels

– but you'll need to make it relevant to your instructional needs




Put this workshop to the test.  
*Will it be rigorous and relevant to your teaching?*




*"I need someone well versed in the art of torture – do you know PowerPoint?"*

Taught at two of Newsweek's 100 Best High Schools in America  
Panelist and Mentor, National Endowment for the Humanities "Younger Scholars" Program  
Reviewer, "National Programs of Excellence" National Council for the Social Studies



The flow of information in the classroom has changed since I got started



## Strategies for Rigor, Relevance and Reading For High Performing Students

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



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



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.



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

Audience Response System courtesy of:



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

Brain is to processor as eyes are to:

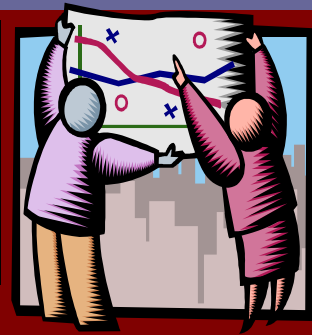
- 16% 1. hard drive
- 8% 2. mouse
- 60% 3. webcam
- 16% 4. monitor

# Strategies for Rigor, Relevance and Reading For High Performing Students

When I go to a workshop, I like to:

- 0% 1. Focus on the theory of instruction
- 64% 2. Get ideas I can use in my classroom
- 4% 3. Interact with my peers
- 24% 4. Be inspired
- 8% 5. Reflect on my practice

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

Higher-level  
thinking skills

Complex use of knowledge



**In School:**  
Test scores,  
class credits,  
academic progress

**In life:**  
Performance,  
ability to adapt  
to change

Recall of knowledge

"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."

~ HS Student quoted in Wiggins and McTighe  
*Understanding by Design*

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

# Strategies for Rigor, Relevance and Reading For High Performing Students

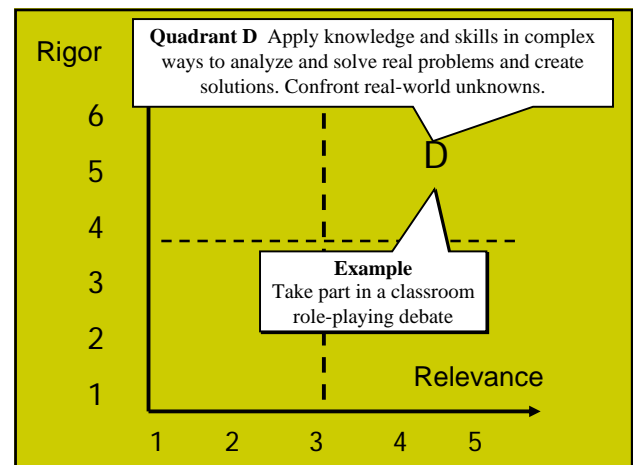
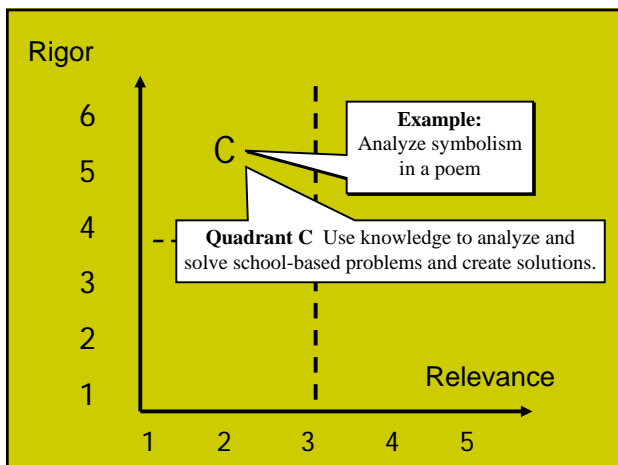
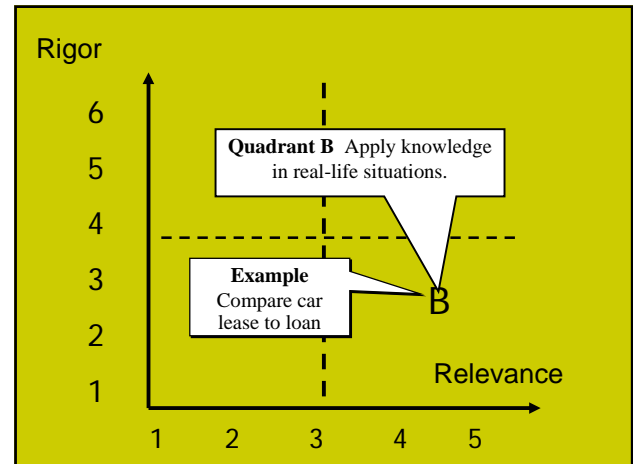
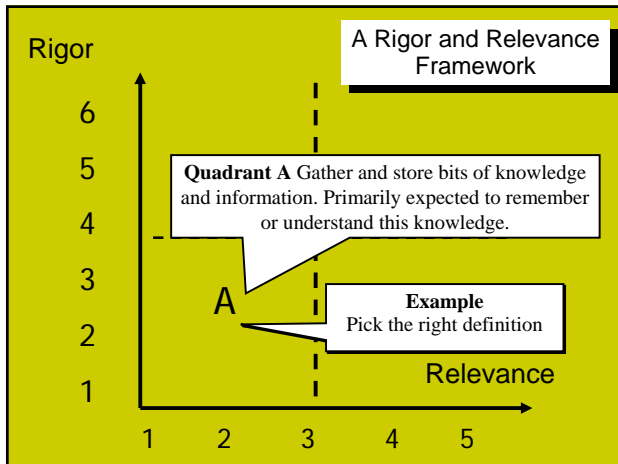
Put students  
in charge of their  
learning



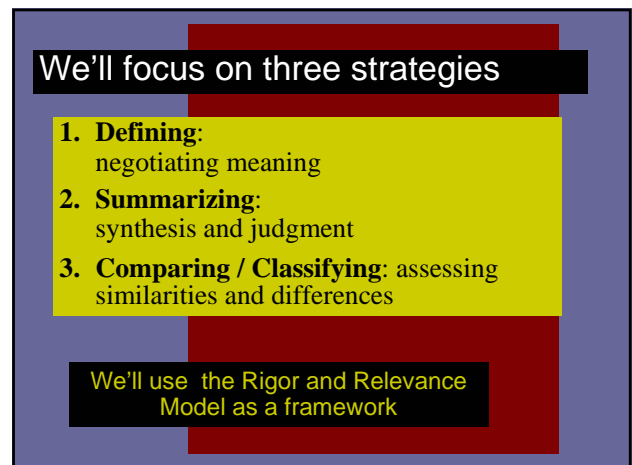
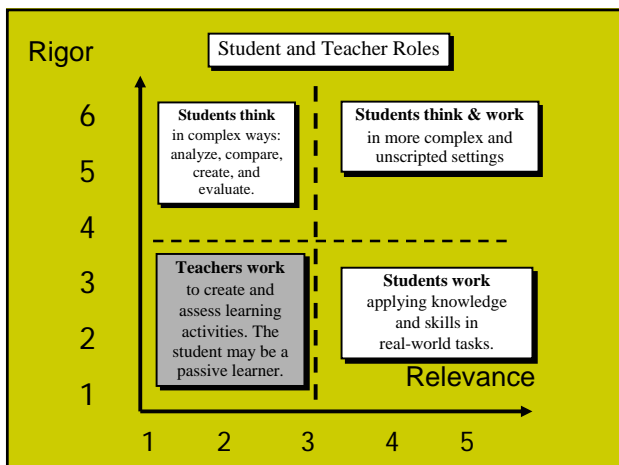
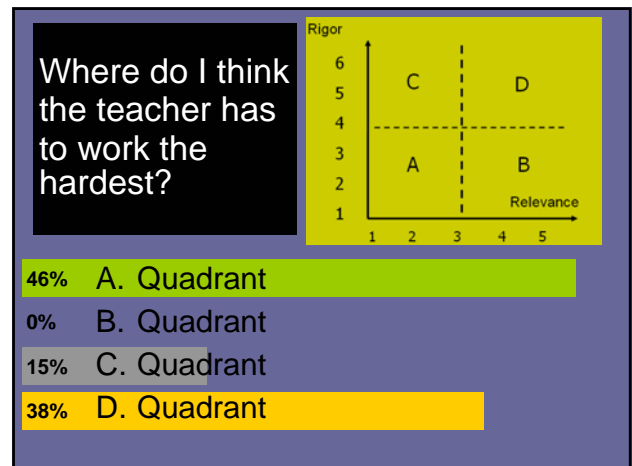
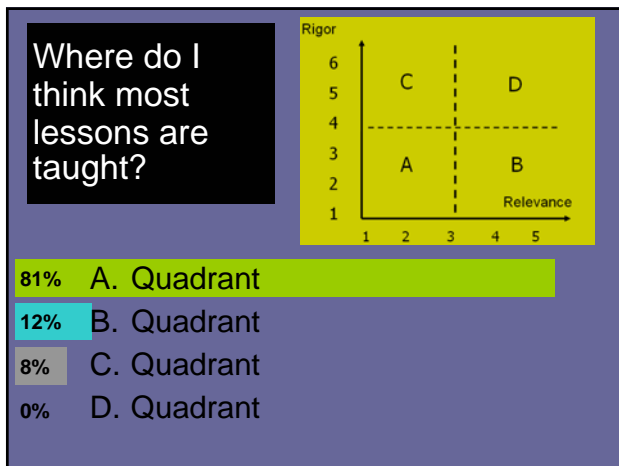
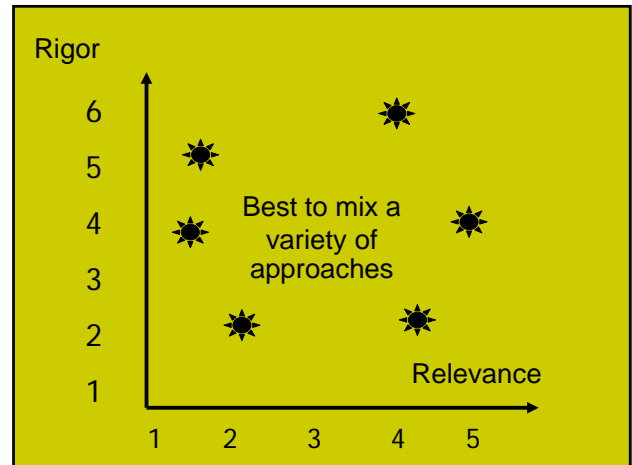
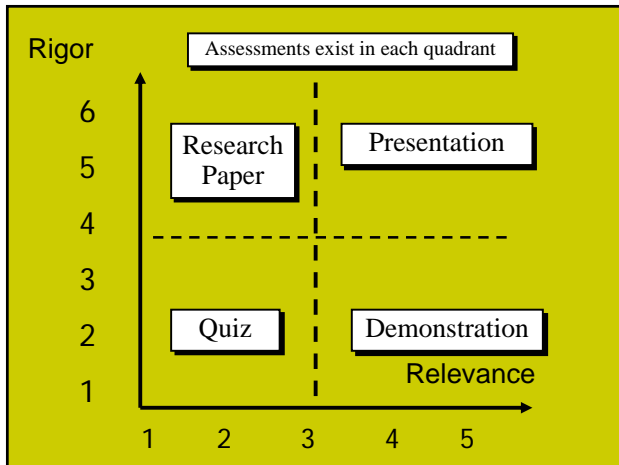
- What am I **learning** today?
- Why am I learning it?
- How can I **use** this knowledge and these skills to make a difference in my life?
- How can I **work** with teachers and other students to **improve my learning**?

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, ....**



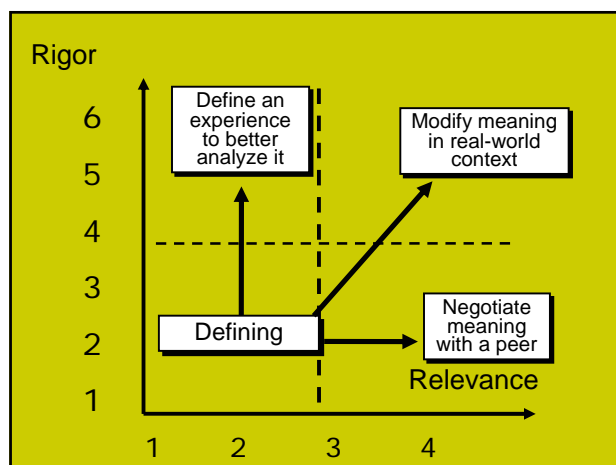
# Strategies for Rigor, Relevance and Reading For High Performing Students





# Strategies for Rigor, Relevance and Reading For High Performing Students

## Strategy #1: Defining *negotiating meaning*



Our school / team teaches using **common defining strategies**

- 4% 1. Strongly Agree
- 13% 2. Agree
- 54% 3. Disagree
- 29% 4. Strongly Disagree

## 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

## 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

# Strategies for Rigor, Relevance and Reading For High Performing Students

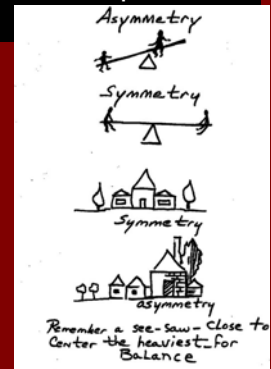
Students **internalize** new vocabulary when they **explore** the words –

- 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

Let them use sketches to represent terms

Graphically represent  
"Symmetry" and  
"Asymmetry"



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: Segregation

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

Dictionary Definition:

Comparison:

This student understands the meaning of "segregation."

- 4% 1. Strongly Agree
- 44% 2. Agree
- 40% 3. Disagree
- 12% 4. Strongly Disagree

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 segregate more as a time period, but the dictionary calls it a practice or policy



# Strategies for Rigor, Relevance and Reading For High Performing Students

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

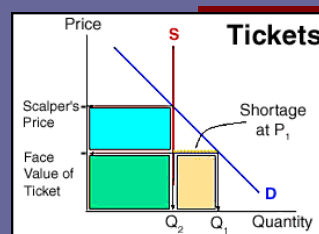
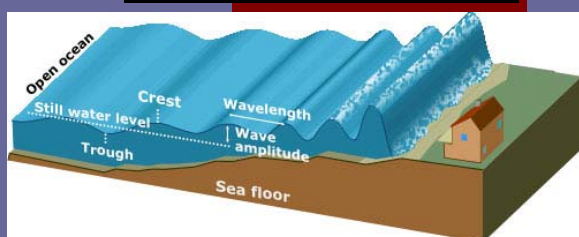
- Identify **key words** in passage
- Ask students to read the passage with **special attention to the context** in which the term is used
- Ask students to discuss **how the author has used the term** in this specific context
- Ask them to **refine** their **preliminary definition** of the word

Refining meaning in an academic discipline ...

**"Model"**



Model of how a tsunami develops



**"The market model provide a base from which mathematical models can be constructed and refined.**

— Michael H. Best, *The Politicized Economy*

**Model - n.** How does it compare to the dictionary definition?

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.



Do you use a common academic vocabulary list?

# Strategies for Rigor, Relevance and Reading For High Performing Students

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

East Irondequoit Middle School

October 2004

WORD OF THE DAY

Latin Bound Base

pel: to push

durare: to harden, to last

pendere: to hang, to be suspended

natus: to be born,

magnus: great, grand

**Latin Bound Base**

	Mon	Tue	Wed	Thu	Fri	Sat
						1
4	endure verb	5 endurance noun	6 durable adj	7 duration noun	8	Super
11	Columbus Day	12 pendant noun	13 pendulum noun	14 pending adj	15	6
18	nature noun	19 natal adj	20 native adj	21 nativity noun	22	4
25	magnificent adj	26 magnify verb	27 magnanimous adj	28 magnitude noun	29	m

**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
<b>Median:</b> The middle number in a set of numbers ordered from smallest to largest.	<b>Demographic:</b> Characteristics of the people of geographic region.	The <b>demographics</b> of the area show that the <b>median</b> 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.

**Math meets music**

**"Finalize" the mastery by asking students to make connections to the new term**

- How the term is **related** to **previous subject matter** they have learned
- Identify **something from their personal life** associated with the term
- How the term is **used in real-life situations**
- How their **understanding** of the term **has evolved**

An essential part of this elaboration process is having the students explain the connection.

**Improving the Rigor and Relevance of Defining**

**Rigor**

6  
5  
4  
3  
2  
1

1 2 3 4

Use graphic organizer to analyze meaning

Students learn and apply term in multi-disciplinary setting

Copy definition from glossary

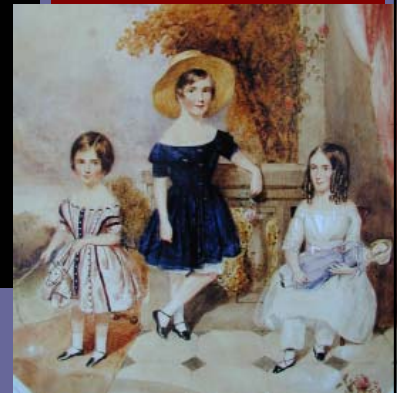
Student compares their own definitions to real-world example

# Strategies for Rigor, Relevance and Reading For High Performing Students

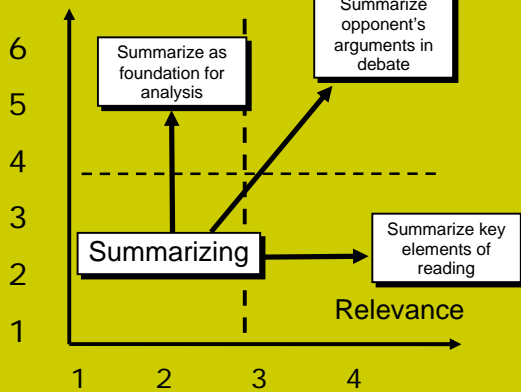
I think it would be a good idea our school / team used **common defining strategies**

- 70% **1. Strongly Agree**  
 26% **2. Agree**  
 0% **3. Disagree**  
 4% **4. Strongly Disagree**

Strategy #2:  
Summarizing  
*synthesis and judgment*



Rigor



Our school / team teaches using **common summarizing strategies**

- 4% **1. Strongly Agree**  
 12% **2. Agree**  
 54% **3. Disagree**  
 31% **4. Strongly Disagree**

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 dictatorships

**+ 34% gain in content mastery**

Case 2:

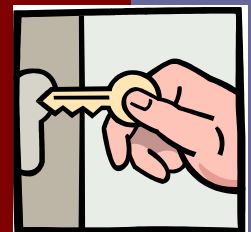
Teacher lectures and then students do a summarizing exercise on the essential characteristics of dictatorships

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

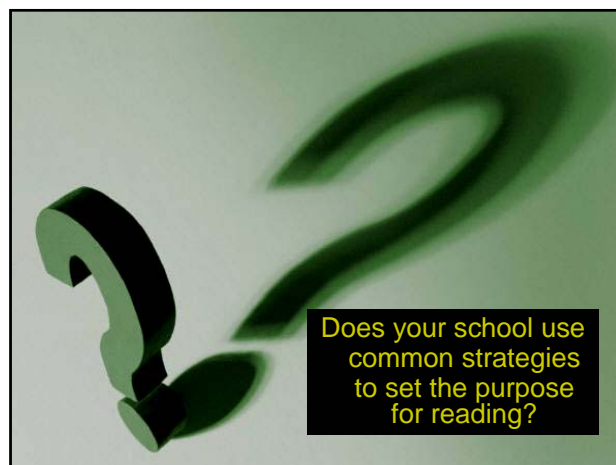
- Main points or details?
- Sequence of events?
- Author's viewpoint?
- Connections to previous learning?



## Strategies for Rigor, Relevance and Reading For High Performing Students

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



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?

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*

Increase rigor - ask students to **work in teams** to form **predictions** from reading – **cite text evidence**

Reading for Academic Success – Strong and Silver

# Strategies for Rigor, Relevance and Reading For High Performing Students

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

I think it would be a good idea if our school / team used **common discussion group techniques**

- |     |                      |
|-----|----------------------|
| 55% | 1. Strongly Agree    |
| 41% | 2. Agree             |
| 0%  | 3. Disagree          |
| 5%  | 4. Strongly Disagree |

Build Summarizing Techniques with  
Visuals



Specify your student outcome

*Given an image students will be able to* demonstrate an ability to **interpret** a visual document by clearly **identifying** the **people**, **objects**, and **activities** in the image.

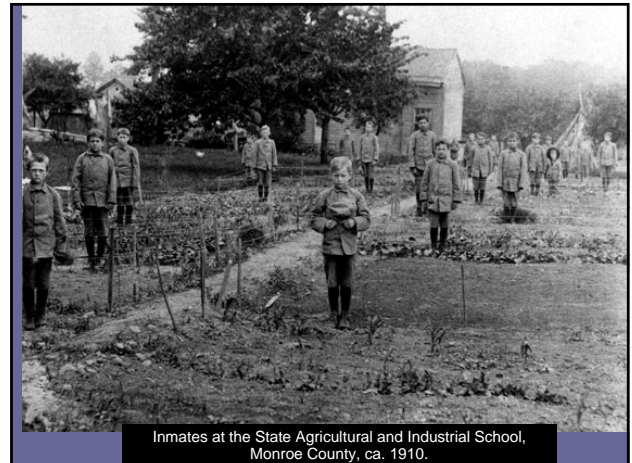
Start with  
Observation:  
Inventory the  
Image



- 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.



# Strategies for Rigor, Relevance and Reading For High Performing Students



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



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

**?**

1



2

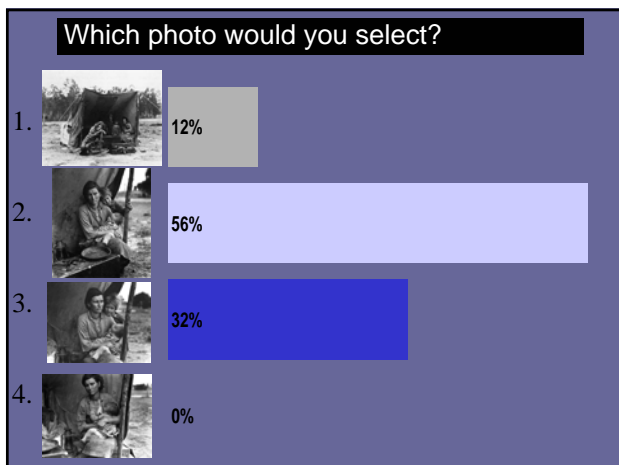


3



4





1



2



3

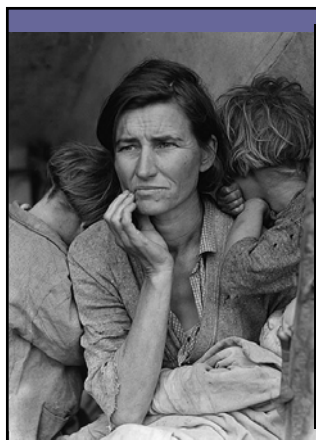


4





# Strategies for Rigor, Relevance and Reading For High Performing Students



"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

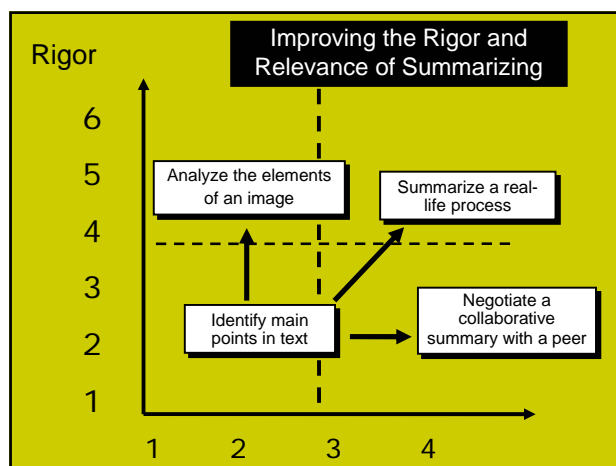
"Migrant Mother" 1936 Nipomo, California

I think **visual and discussion skills** can be effectively used to "teach" summarizing skills.

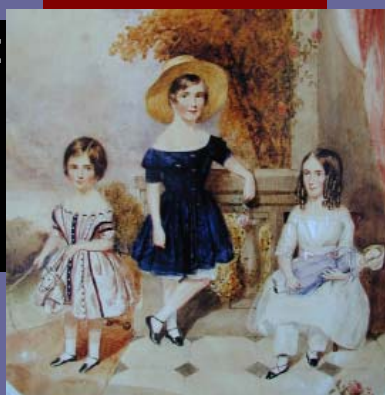
- 71% **1. Strongly Agree**
- 29% **2. Agree**
- 0% **3. Disagree**
- 0% **4. Strongly Disagree**

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**?



**Strategy #3:**  
Comparing /  
Classifying  
*assessing  
similarities and  
differences*



Mastery of comparison skills is **critical to academic achievement**

- Central construct in academia
- Critical to comprehension

We need to prepare students to **effectively address comparative tasks** and generate their own models.

- Comparative literature
- Comparative religion
- Comparative anatomy
- "Contrast the function of pores in humans and stomata in plants."
- "Compare the nautical elements in the fiction of London and Conrad"

# Strategies for Rigor, Relevance and Reading For High Performing Students

**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**



**What do you observe?  
 How do things compare?  
 Can you effectively write about it?**

Comparison	Square		Rectangle		
	1 x 1 cm	2 x 2 cm	4 x 6 cm	3 x 7 cm	3 x 8 cm
Perimeter	4 cm	8 cm	20 cm	20 cm	22 cm
Area	1 sq cm	4 sq cm	24 sq cm	21 sq cm	24 sq cm

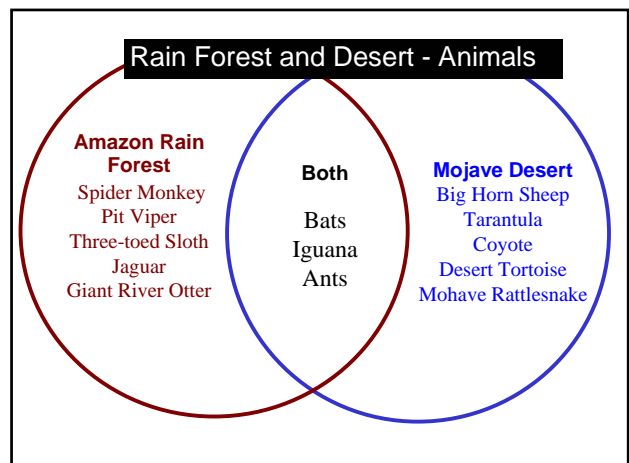
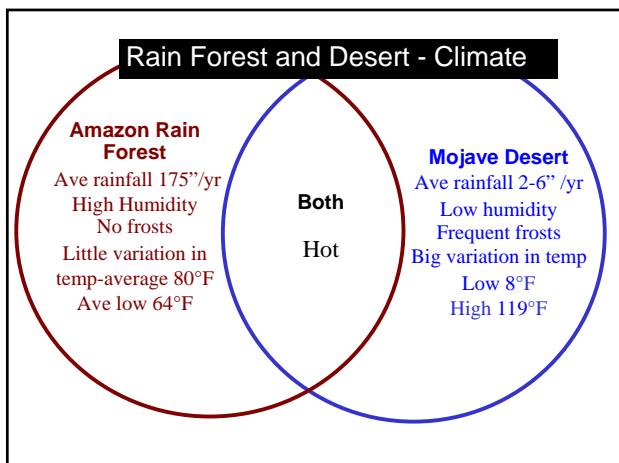
Two rectangles can have the same perimeter, but different areas. That also means that a square and a rectangle could have the same perimeter, but different areas. Also, two rectangles can have the same area, but different perimeters. If you double the size of a square, the perimeter doubles, but the area increase by four times.

*Handbook for Classroom Instruction that Works, Robert Marzano*

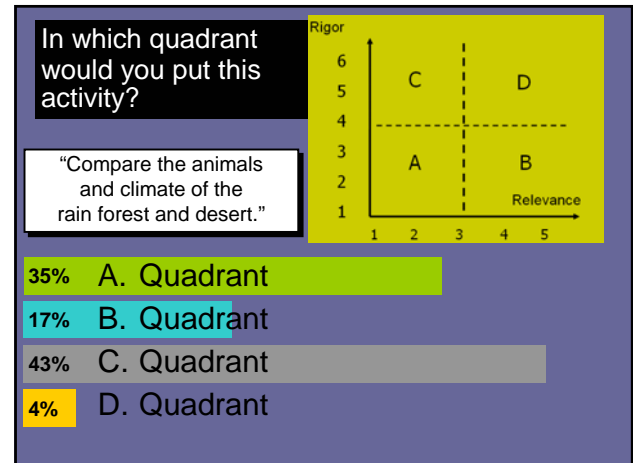
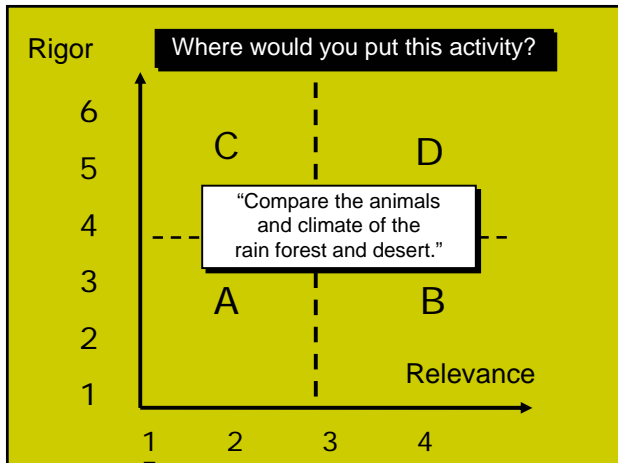
**"Compare the animals and climate of the rain forest and desert."**

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 High Performing Students



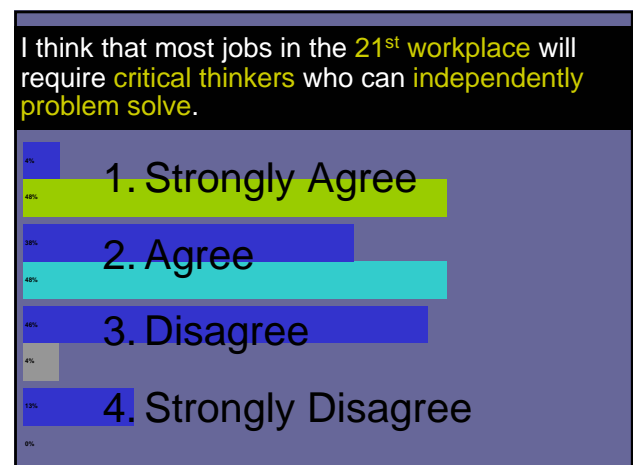
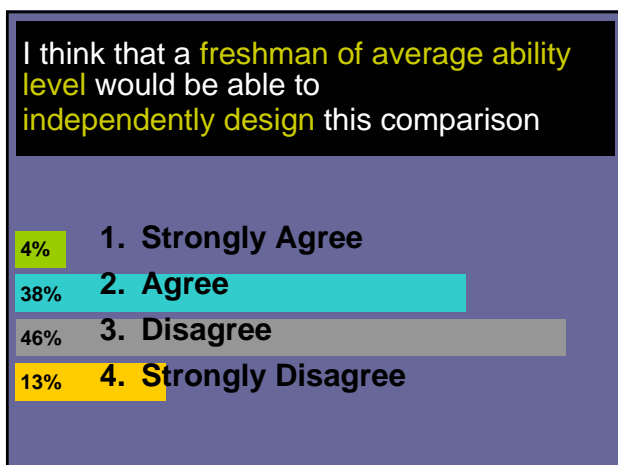
But who is doing the thinking in this exercise?  
*"Compare the animals and climate of the rain forest and desert."*

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.



# Strategies for Rigor, Relevance and Reading For High Performing Students

Do you give students an opportunity to **develop their own analytic 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?

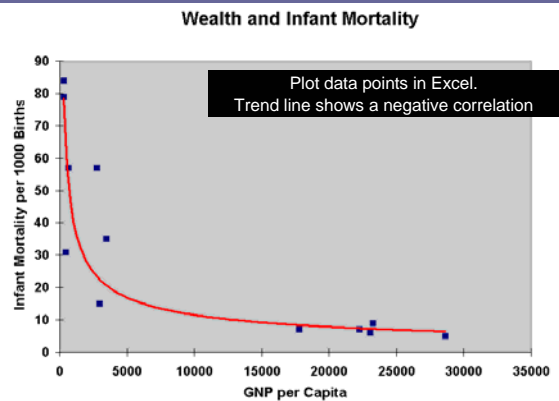
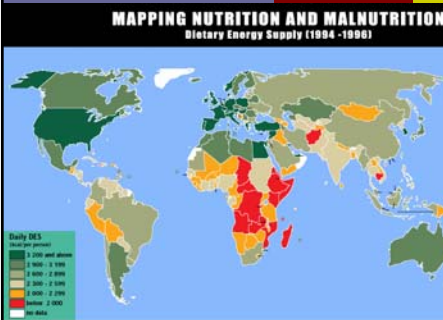
Develop a comparative analysis of **What's more important in sports ...strength or agility?**

Add a peer review of research proposals



Conduct quantitative comparisons of real-world problems

*What is the relationship between wealth and infant mortality?*



Move from Comparing to Classifying



1. **Comparing** is the process of **identifying similarities and differences** between or among things or ideas (technically contrasting is looking for differences.)
2. **Classifying** is the process of **grouping things** that are **alike into categories** on the basis of the characteristics

*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?

# Strategies for Rigor, Relevance and Reading For High Performing Students

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**?

Which one is the most unique?



Which one is the most unique?

11%



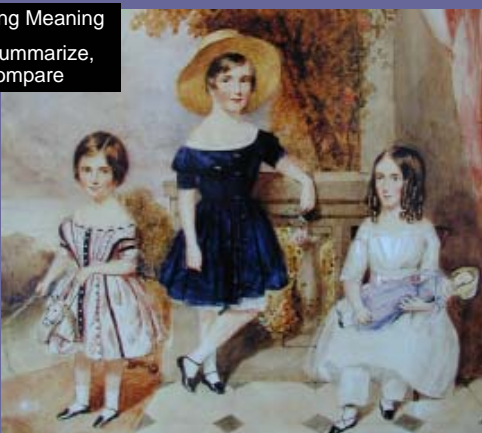
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