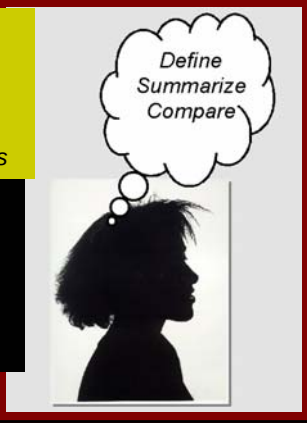
Focus on Instruction

Applying Lessons Learned from Successful Schools

Peter Pappas
High School Reinvention Symposium
2005



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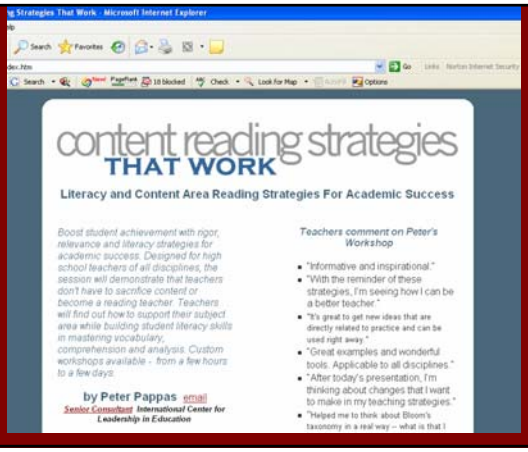


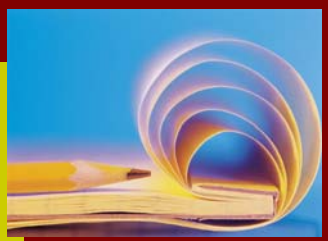
Agenda

PowerPoint
pg 18 in Binder

- Teaching and learning in the 21st century
- Rigor, relevance and learning strategies
  - Defining
  - Summarizing
  - Comparing
- **Break**
- Lessons from a Model School: Kennesaw Mountain HS
- **Break**
- Panel Discussion ~ Q and A

Q and A

- There are index cards at your tables
- Write down your questions
- Turn in at break
- Panel Discussion



Focus on Instruction

Our essential questions:

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

"How have we organized to accomplish this vision?"

It's more than new names, structures and programs - it's about quality instruction

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

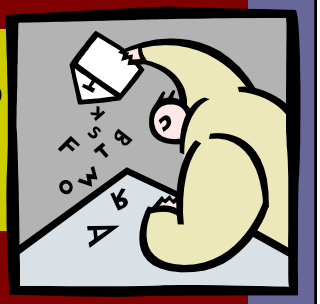
Focus on Instruction

Organize the school around adding value to student performance

Your daily measure …
"Today, how did I contribute to our learning community?"

Partial assembly required

You'll need to make it relevant to your school and instructional needs

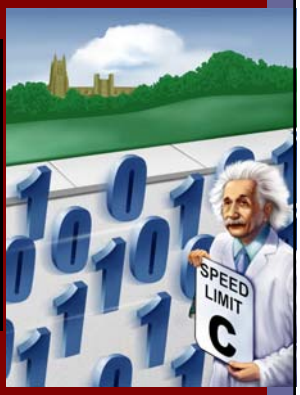


a revolution in accountability

"Student achievement is primarily the function of the **background of the student**."
US Dept of Education 1972

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

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.

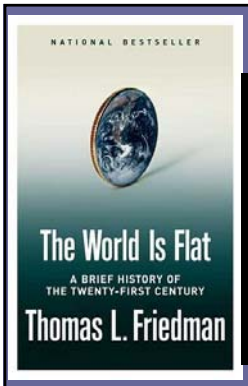
Schools should recognize the realities of the information rich world our students live in

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

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

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

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



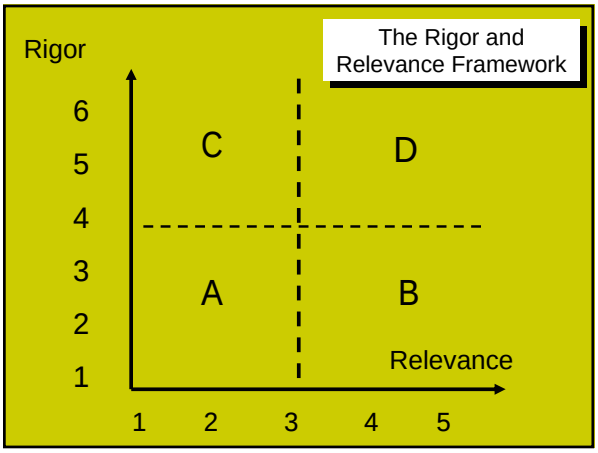
"Any activity that we can digitize … will get moved around.

People will have to have special skills that create superior products."

"When the world is flat, anyone with smarts, access to Google and a cheap wireless laptop can innovate"

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, ….**



Rigor: Bloom's taxonomy

Evaluation: appraise, defend, predict

Synthesis: compose, design, develop

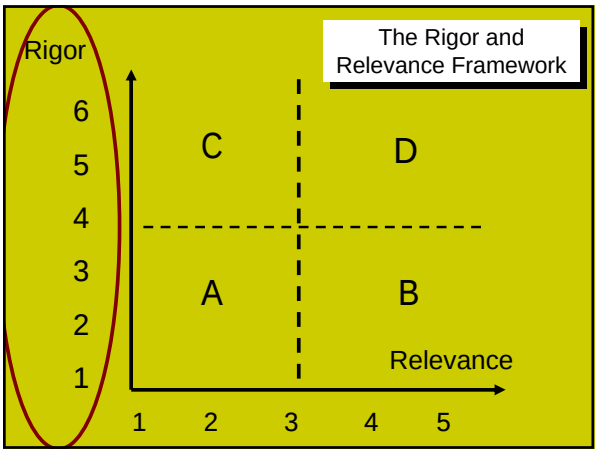
Analysis: compare, contrast, categorize

Basic Skills

Application: demonstrate, illustrate, solve

Comprehension: describe, explain

Knowledge: memorize, name, recognize, recall

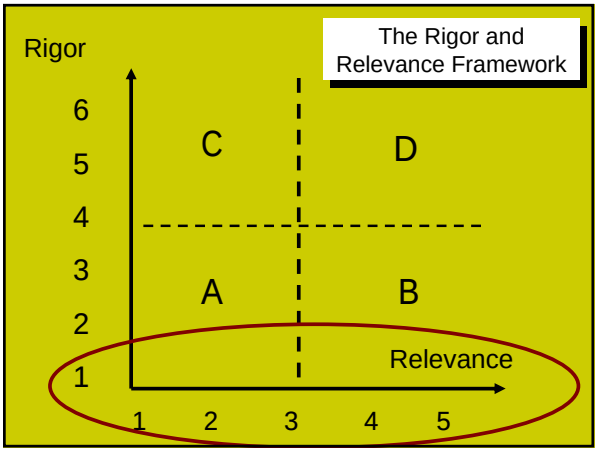


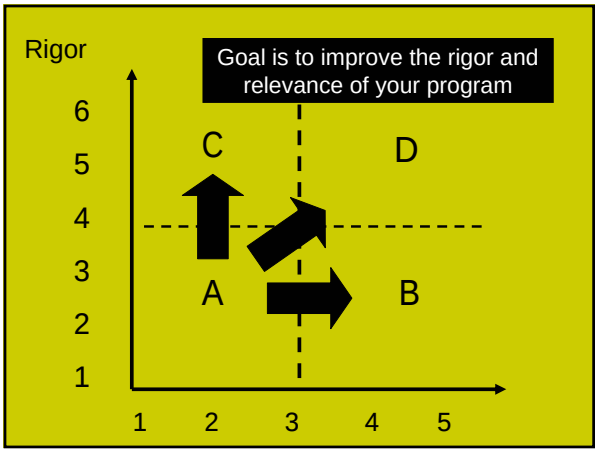
And make it relevant with real-world application

Using skills and knowledge in school

Using skills and knowledge for myself in the real world

1 2 3 4 5





Implications for instruction

1. Have we clearly defined our goals?
2. What are the barriers to our goals?
3. How do we allocate resources to support goals?
4. Who are our instructional experts? What do they think works?
5. Are we working more successfully as individuals or members of a team?

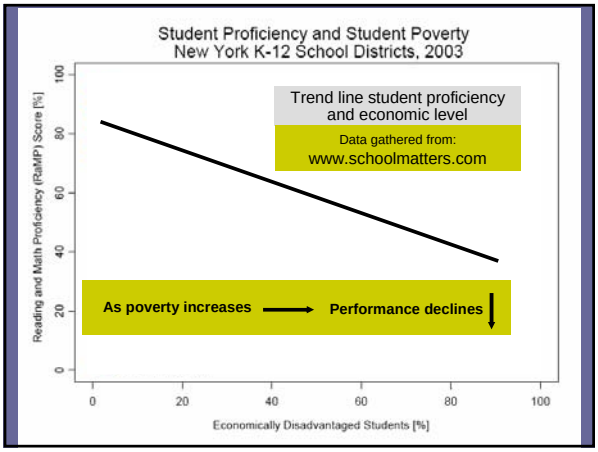
It's more than new names, structures and programs - it's about quality instruction

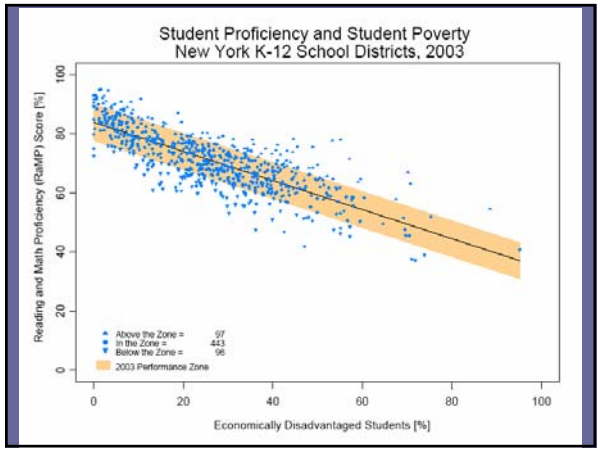
- Consistent focus on common instructional strategies ~~in a student-centered classroom~~
- Engage the entire school community in thinking critically about student achievement
- A ~~professional development~~ program that models rigorous and relevant instruction

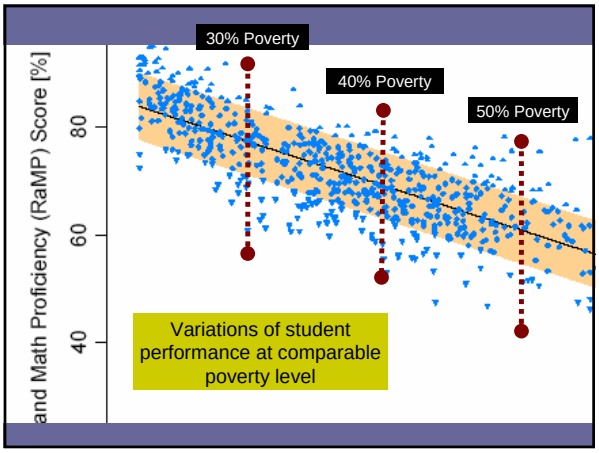
Focus on Instruction

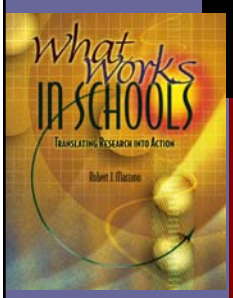
Think critically about the factors that impact student performance

Assumption: Schools tend to reflect the social capital of their students and families





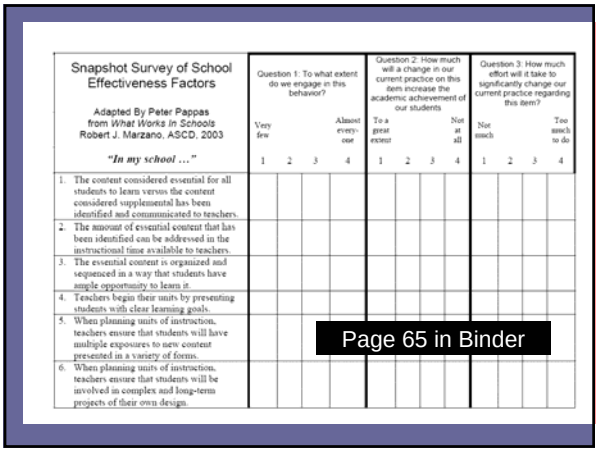




Robert Marzano:
What Works in Schools

"35 years of research concretely identifies 11 factors that are the **primary determinants of student achievement**."

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



1. Do we engage in this practice?
   Not at all (1)…… To a great extent (4)

2. How much would it impact student performance?
   To a great extent (1)…… Not at all (4)

3. How much effort would it take to significantly change our practice?
   Not much (1)…… To much to do (4)

Effective learning strategies impact student achievement.
We'll consider three in the context of the *Rigor and Relevance framework*

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

Strategy #1 : Defining
negotiating meaning

Focus on Instruction

Reflecting on defining skills

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

Does our school use common strategies for teaching defining?

Literacy is *Constructing Meaning*

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

How to Bartle Puzballs

There are tork gooboos of puzballs, including laplies, mushos, and fushos. Even if you bartle the puzballs that tovo inny and onny of the pern, they do not grunto any lipples. In order to geemee a puzball that gruntos lipples, you should bartle the fusho who has rarckled the parshtootoos after her hemply fluflu.

1. How many gooboos of puzballs are there?
2. How can you geemee a puzball that gruntos lipples?

Deeper Reading, Kelly Gallagher, Stenhouse, 2004

"No!"	"I don't!"	"You knew?"	"You can't."
"Yes."	"You do."	"I knew."	"I can."
"You didn't!"	"Unfaithful?"	"Long enough."	"Please!"
"I did."	"Yes."	"What now?"	"Don't beg."
"When?"	"With whom?"	"Guess."	"Forgive me!"
"Just now."	"With you."	"Police?"	"Too late."
"Where?"	"No!"	"Later."	"Good God!"
"Bedroom."	"Yes."	"Why later?"	"Goodbye."
"Dead?"	"She didn't …"	"Guess again."	********
"Yes."	"She did."	"Tell me!"	
"Why?"	"We didn't"	"Look."	"Operator?"
"You know."	"You did."	"Oh, no!"	"Yes, sir."
		"Oh, yes."	"The police"

"Conversation Piece" Ned Guymond, *Ellery Queen's Mystery Magazine* 1950

Strategies for teaching defining skills

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

Build associations with prior knowledge.

Connect students with what they already know .

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

Let students generate preliminary definitions

Students negotiate a definition for ***refugee***

Student 1: A person who has come to the US from another country

Student 2: An immigrant looking to come here.

Student 3: A person who runs away from one country to find safety.

Negotiated Definition: An immigrant fleeing political conditions in one country to find safety in another.

Pre-reading:
Let students work together to compare preliminary definitions.

- Students write 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 words 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

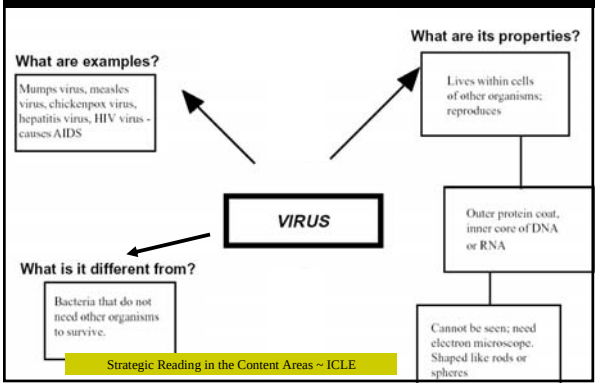
Term:	*Segregation*
"My" definition:	*A time when African-Americans used to have separate schools*
Dictionary Definition:	*The policy or practice of forcing racial groups to live apart from each other*
Comparison:	*I thought of segregation more as a time period, but the dictionary calls it a practice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

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

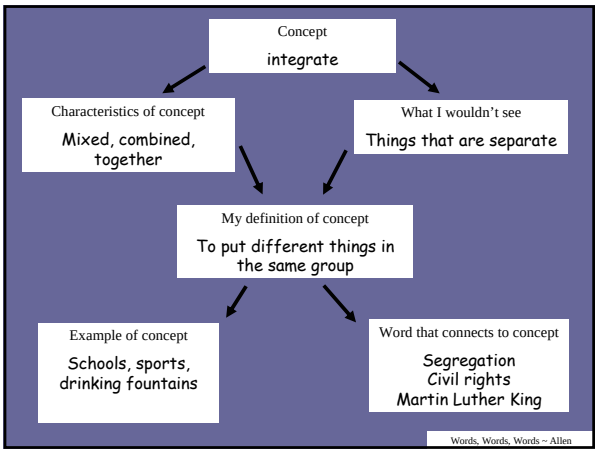
- Think about terms, examine and reexamine in new ways.
- Apply their understanding - opposites and analogies.
- Create multiple formats for which students can elaborate on the meaning of new terms.

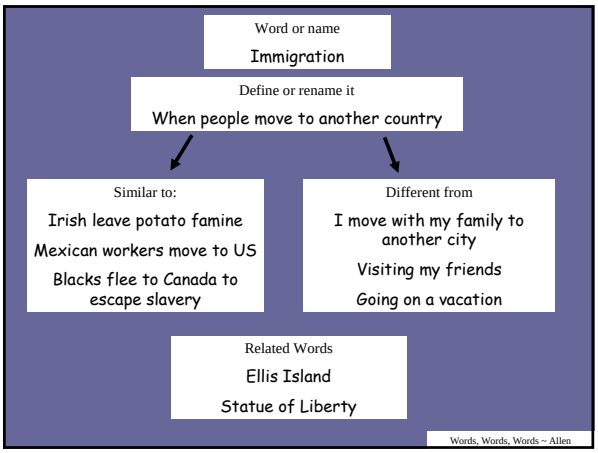
Increase rigor and relevance with non-linguistic definitions

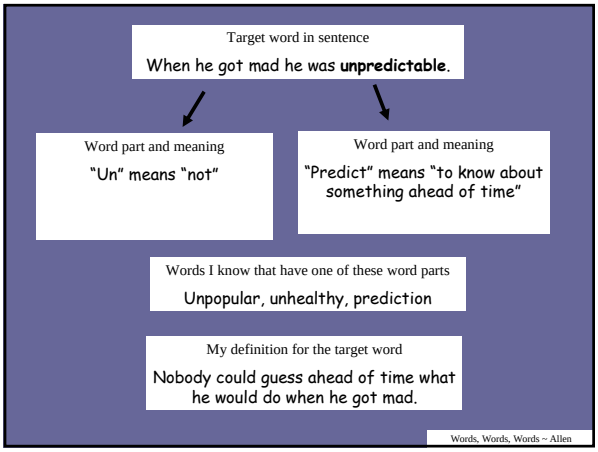
Explore in graphic format - Concept Definition Map

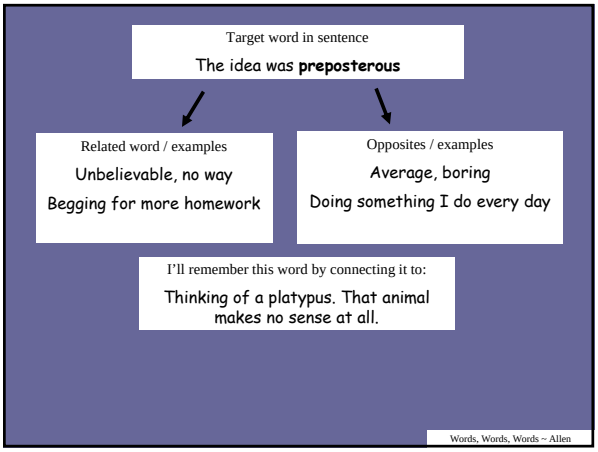


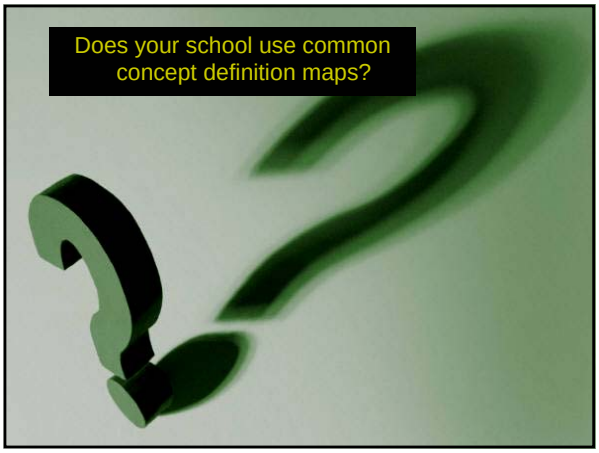
Strategic Reading in the Content Areas ~ ICLE







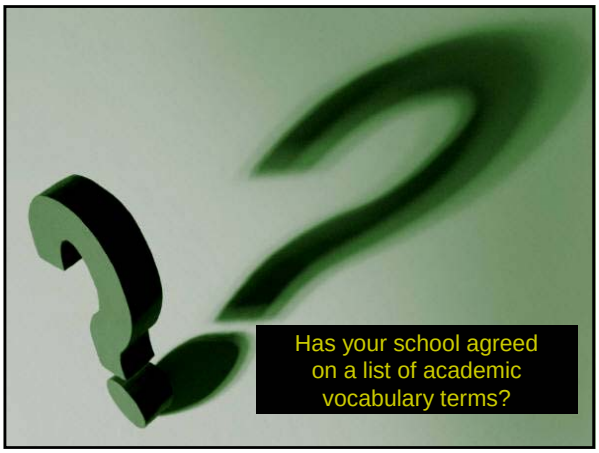


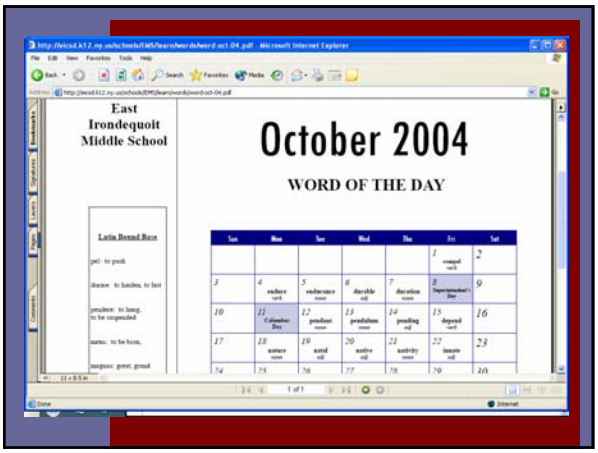


"Finalize" the mastery by asking students to make connections to the new term

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

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





Latin Bound Base

pel: to push

durare: to harden, to last

pendere: to hang, to be suspended

natus: to be born,

magnus: great, grand

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

Teachers must monitor accuracy of student work

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

Vocabulary Self-Evaluation

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

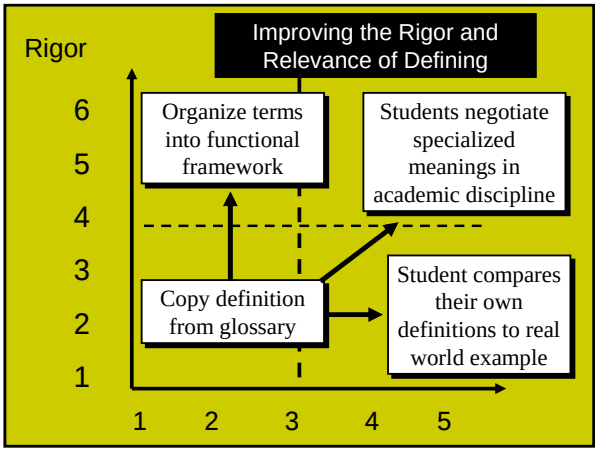
Building Academic Vocabulary - Bob Marzano

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 3
Student Name _____ Date _____

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

Building Academic Vocabulary - Bob Marzano



Strategy #2:
Summarizing
synthesis and judgment

Focus on Instruction

Reflecting on summarizing skills

- What summarizing **skills do we teach**?
- What **strategies do we use**?
- What **strategies are working**?

Does our school use common strategies for teaching summarizing?

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

Modify Paired Reading into: **Peer Reading Coach**

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

Reading for Academic Success ~ Strong and Silver

Increase relevance – have student groups **negotiate a collaborative summary**

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

Reading for Academic Success ~ Strong and Silver

Make summarizing more rigorous and relevant with Evaluation

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

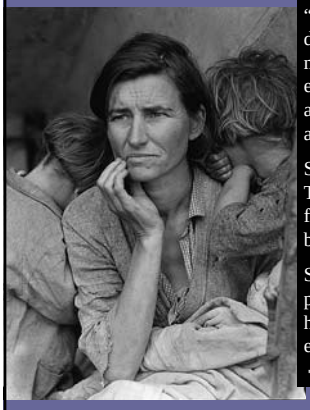
?

1

2

3

4



"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.

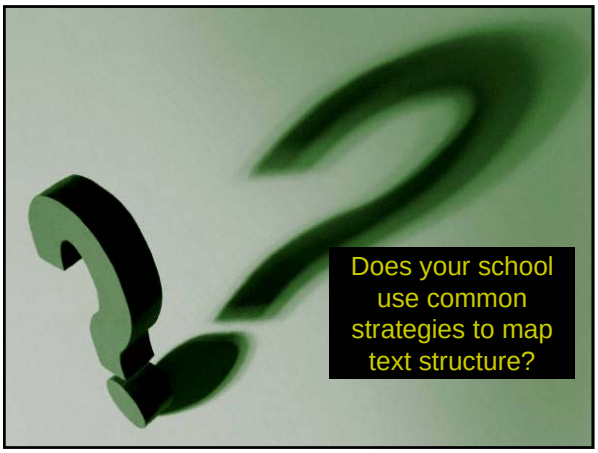
She seemed to know that my pictures might help her, and so she helped me. There was a sort of equality about it." Dorothea Lange

"Migrant Mother" 1936 Nipomo, California

Writing a summary matched to text structure

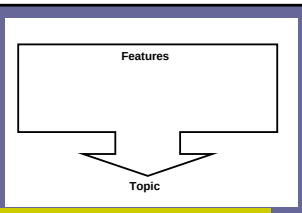
Recognizing **how a piece of writing is organized** helps to summarize it

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



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



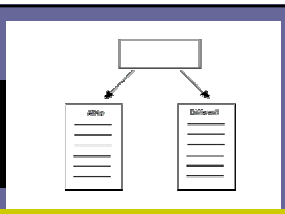
The Olympic symbol consists of five interlocking rings.

The rings represent the five continents - Africa, Asia, Europe, North America and South America - from which athletes come to compete in the games.

The rings are colored black, blue, green, red, and yellow.

At least one of these colors is found in the flag of every country sending athletes to compete in the Olympic games.

Comparison: how two or more things are alike or different

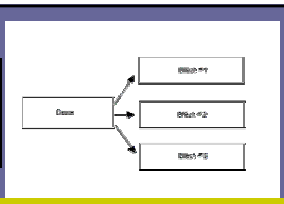


The modern Olympics is very unlike the ancient Olympic games. Individual events are different. While there were no swimming races in the ancient games, for example, there were chariot races.

There were no female contestants and all athletes competed in the nude. Of course, the ancient and modern Olympics are also alike in many ways. Some events, such as the javelin and discus throws, are the same.

Some people say that cheating, professionalism, and nationalism in the modern games are a disgrace to the Olympic tradition. But according to the ancient Greek writers, there were many cases of cheating, nationalism, and professionalism in their Olympics too.

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

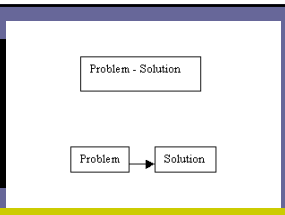


There are several reasons why so many people attend the Olympic games or watch them on television. One reason is tradition. The name Olympics and the torch and flame remind people of ancient games.

People can escape the ordinariness of daily life by attending or watching the Olympics. They like to identify with someone else's individual sacrifice and accomplishment.

National pride is another reason, and an athlete's or a team's hard earned victory becomes a nation's victory. There are national medal counts and people keep track of how many medals their country's athletes have won.

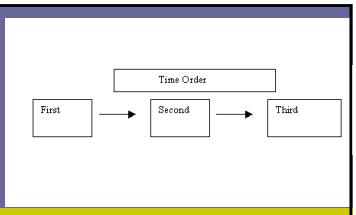
Problem and Solution: States a problem and lists one or more solutions for the problem



One problem with the modern Olympics is that it has become very big and expensive to operate. The city or country that hosts the games often loses a lot of money. A stadium, pools, and playing fields must be built for the athletic events and housing is needed for the athletes who come from around the world. And all of these facilities are used for only 2 weeks!

In 1984, Los Angeles solved these problems by charging a fee for companies who wanted to be official sponsors of the games. Companies like McDonald's paid a lot of money to be part of the Olympics. Many buildings that were already built in the Los Angeles area were also used. The Coliseum where the 1932 games were held was used again and many colleges and universities in the area became playing and living sites.

Sequence: Lists items or events in numerical or chronological order

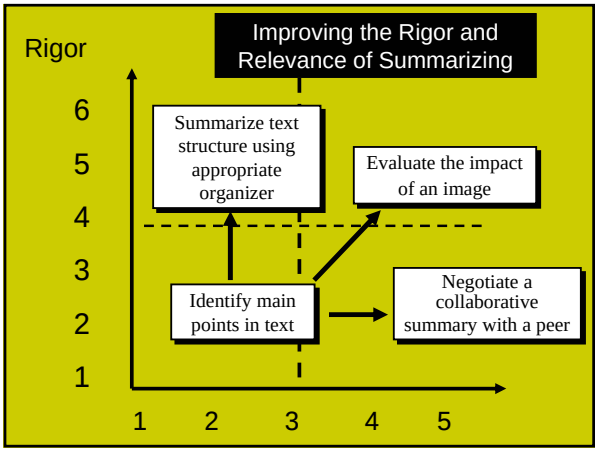


The Olympic games began as athletic festivals to honor the Greek gods. The most important festival was held in the valley of Olympia to honor Zeus, the king of the gods.

It was this festival that became the Olympic games in 776 B.C. These games were ended in A.D. 394 by the Roman Emperor who ruled Greece. No Olympic games were held for more than 1,500 years.

Then the modern Olympics began in 1896. Almost 300 male athletes competed in the first modern Olympics. In the games held in 1900, female athletes were allowed to compete.

The games have continued every four years since 1896 except during World War II, and they will most likely continue for many years to come.



Strategy #3 : Comparing

assessing similarities and differences

Focus on Instruction

Reflecting on comparing

- What **comparing skills do we teach**?
- What **strategies do we use**?
- What **strategies are working**?

Does our school use common strategies for teaching comparing?

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

Case 1:
Teacher lectures on the essential characteristics of mammals

+ 45% gain in content mastery

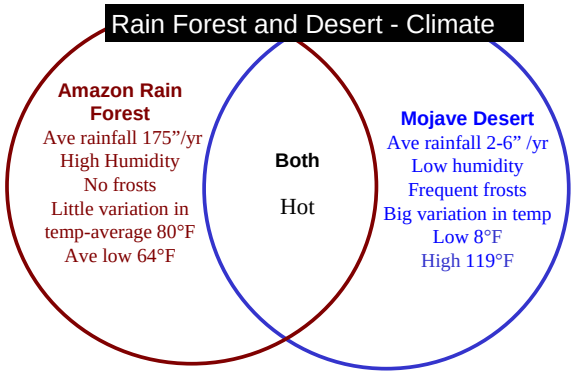
Case 2:
Teacher lectures and then students do exercise comparing the essential characteristics of mammals to birds

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

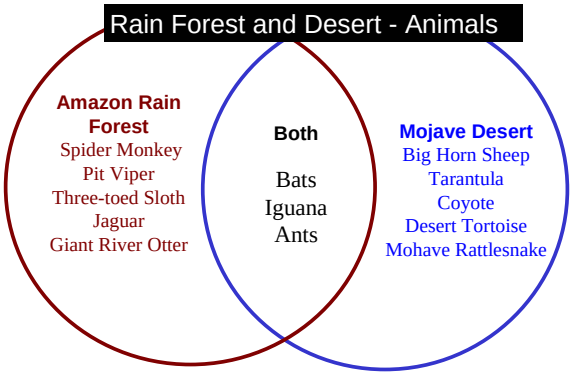
Amazon Rain Forest	Mohave Desert
Ave rainfall 175"/yr High Humidity No frosts Little variation in temp-average 80°F Ave low 64°F	Ave rainfall 2-6" /yr Low humidity Frequent frosts Big variation in temp Low 8°F High 119°F
Hot	
Spider Monkey Pit Viper Three-toed Sloth Jaguar Giant River Otter	Bats Iguana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

Classroom Instruction that Works, ASCD

Rain Forest and Desert - Climate



Rain Forest and Desert - Animals



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

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

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

How would students independently compare regions?

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

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

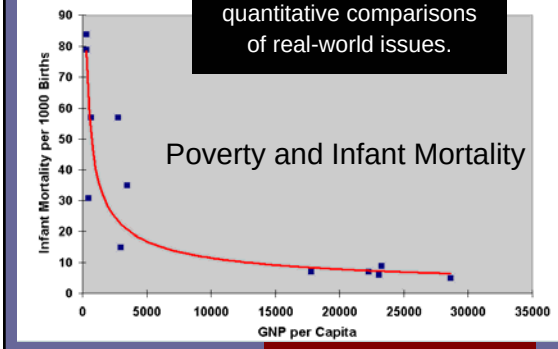
1. They could **select items to compare** from a teacher-produced list.
2. They could independently decide **what to compare**.
3. Can include some combination of **selecting both the items and / or characteristics**.

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

Start them with something relevant

What's more important in sports …strength or agility?

Do your students conduct quantitative comparisons of real-world issues.



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**?

Increase rigor of classification – add evaluation and decision-making

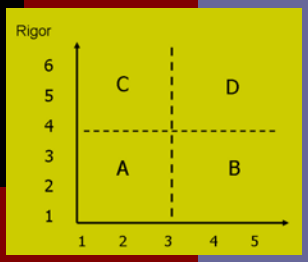
Decision	Criteria for evaluation		
	Criteria 1	Criteria 2	Criteria 3
Option 1			
Option 2			
Option 3			

Make it relevant - Choose a college	Criteria for evaluating schools		
	Cost	Size	Location
College choice 1			
College choice 2			
College choice 3			

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

Focus on Instruction

You can use the Rigor and Relevance Framework as the basis for a common vision of teaching and learning



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**?

Teachers are in charge of their teaching

When they forge a common view of teaching and learning

And we treat the organization as an instrument for accomplishing the vision

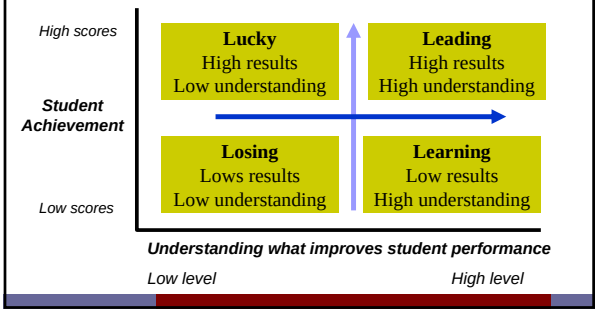
Foster highly-qualified teachers who:

- Receive **explicit instruction** in **instructional strategies**
- Get to **observe other skilled teachers in action**
- Receive **consistent feedback** from **administrators** capable of **modeling the strategies**
- **Reflect** on their **current practice with peers**

If we don't provide an intellectually stimulating environment for teachers…
why do we think they will provide them for kids?
~ Art Costa

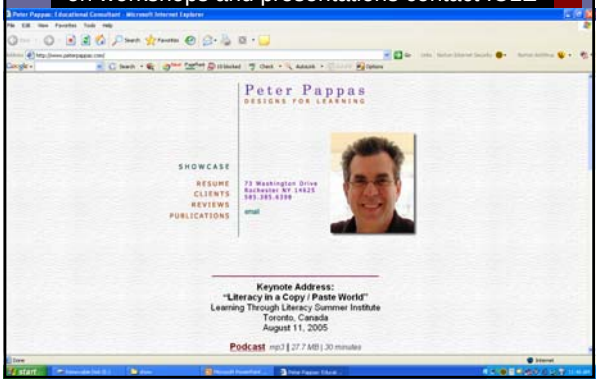
Focus on instructional strategies that improve student performance

Model from Doug Reeves



It's more than new names, structures and programs - it's about quality instruction

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

Focus on Instruction

For resources and information on workshops and presentations contact ICLE