

engaging teens in a 21st century classroom

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Contact

we'll use
an
audience
response
system

Courtesy of:
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Foundations
of engagement

Kinds of thinking
Relevance

What is critical thinking?

Critical thinking =
Higher level Bloom's Taxonomy

- **Creating** - generating new ideas
- **Evaluating** - justifying a decision or choice
- **Analyzing** - breaking into component parts
- **Applying** - using information in a new setting
- **Understanding** - explaining idea or concept
- **Remembering** - recalling information

Creating

A new combination
of old elements


Kindergarten Creators

If the dinosaurs came back,

-If-I-had-a-Brontosaurus

-I-would-

-use-him-as-a-school-bus




If I had a Brontosaurus
I would use him as a school bus

If the dinosaurs came back,

-If-I-had-a-Stegosaur

-Use-Use-him-as-a-

-ladder-



If I had a Stegosaur
I would use him as a ladder

What is relevance?

Learning is relevant when the student:

- understands how this information or skill has some **application in their life.**
- has an opportunity to **follow their own process rather than just learn “the facts.”**
- is not just learning content and skills, but is **reflecting on their work and their progress as learners.**

Justin, a second grader,
talks about math



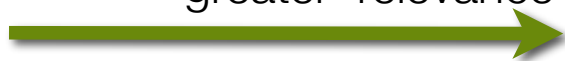
From: *Math Is Language Too: Talking and Writing in the Mathematics Classroom* Phyllis Whitin

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

Almost one-third of the 8th graders who took the NAEP math test answered
“6 remainder 20”



Move students toward
greater relevance



Using skills and
knowledge in routine
school setting.

**Work as directed
by the teacher.**

Using skills and
knowledge for myself in
the real world.

**Figuring out my own
approaches.**

**Evaluating my
progress**

Strategies to support student engagement

- Summarizing
- Comparing
- Reflecting

18 Strategies to download: <http://bit.ly/U6olo>

August 25, 2009

18 Literacy Strategies for Struggling Readers - Defining, Summarizing and Comparing

Strategies for Struggling Readers



Defining Strategies

1. Assess and Confer
2. Practicing ABC
3. K.I.M.
7. Encouraging Words
13. Brainstorm, Group, Label
14. Vocabulary Notebook

Summarizing Strategies

4. It's Pause, You Think
5. What Do You Expect?
6. Text Investigation
8. Three Things I'd Like to Know
9. Content Notes
15. Show and Tell
16. Progressive Summary
17. Sort and Select

Comparing Strategies

10. You Be the Jury
11. I Believe
12. Ask Me Different
17. Sort and Select
18. Comparison Matrix

I've been working with teachers on learning strategies to support the literacy and comprehension skills that students commonly use across the content areas. This pdf includes 18 lessons organized in two ways: by comprehension strategy - defining, summarizing and comparing and by target reader - non-reader, word caller and turned-off reader. The lessons are designed as templates which teachers can modify to use in their specific subject areas.

[Strategies for Struggling Readers 3MB pdf](#)

Developed by Patricia Martin and
Peter Fagan Copyright © 2009
For more resources
Contact Reading Strategies that Work!
www.rafts.com/ra

Summarizing

Evaluating what's
important.

Sharing what
you've learned.

Support literacy
Raise level rigor
Greater relevance

Summarizing builds content knowledge

Group 1:
Teacher lectures on the essential characteristics of mammals

34% gain in content mastery

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

Marzano's research shows student use of summarizing skills results in a 34-percentile gain in student performance.

Marzano: Classroom Instruction that Works

Six essential summarizing 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?

Continued - Summarizing skills

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

Move from identifying details to inference

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





Elements for teaching summarizing

- Allow students to make their own judgments about what's important (instead of just repeating the details the teacher highlights)
- Students need to be able to share what they've learned with an audience other than the teacher.

Elements for teaching summarizing

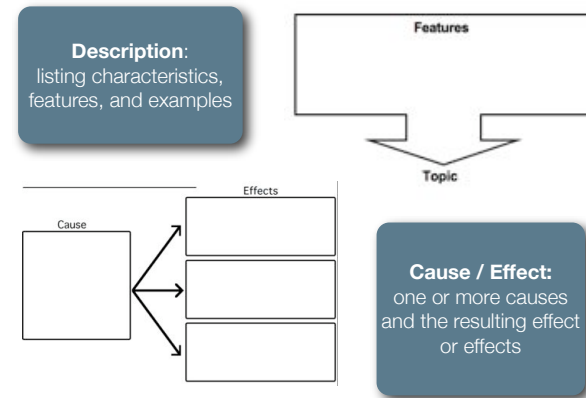
- Allow students to make their own judgments about what's important (instead of just repeating the details the teacher highlights)
- Students need to be able to share what they've learned with an audience other than the teacher.

Explaining what you've learned is telling a story using a narrative patterns.

- Student may need **explicit training** about **narrative patterns**.
- Recognizing **how information is organized** helps to **analyze original** work and **summarize it** for their **audience**.

Narrative 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 / effect	Lists one or more causes and the resulting effect or effects.	reasons why; if...then; as a result; therefore; because
Problem / 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

Non-linguistic Representations



Comparing Classifying

Evaluating
similarities and differences.
Sharing what
you learned.

Support literacy
Raise level rigor
Greater relevance

Comparing builds content knowledge

Marzano's research
shows student use of
comparing skills
results in a 45-
percentile gain in
student performance.

Group 1:
Teacher lectures on
the essential
characteristics of
mammals

45% gain
in content
mastery

Group 2:
Teacher lectures,
then students compare
the essential
characteristics of
mammals to birds

Marzano: Classroom Instruction that Works

Do you give students chances to develop their comparative models?

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

How is the comparison useful?
What do you learn from it?

Elements for teaching comparing and classifying

- We must ask students to develop the comparison, not just learn and repeat the model that we present to them.
- Student must share what they learned from the comparison.

Students can do comparisons in every class.

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



"When it comes to learning and recall, patterns can be more important than facts."

~Tim Hurson

Essential Question:
Who is doing the work?



**Learn to research,
think, problem-solve
and write like a**

**- scientist, engineer,
coach, artist,
historian, writer,
mathematician,
musician**



Sample Project:
6th graders
write ABC book

- Students study the organs of the body
- Develop a comparisons
- Create an ABC book



K is for
Kidney

By~ Holly and Sarina

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



Kidney By~Holly and Sarina

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



Pool filter

We organized
and decided who was going to
do what and how.

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



What process did you use to
complete the project?

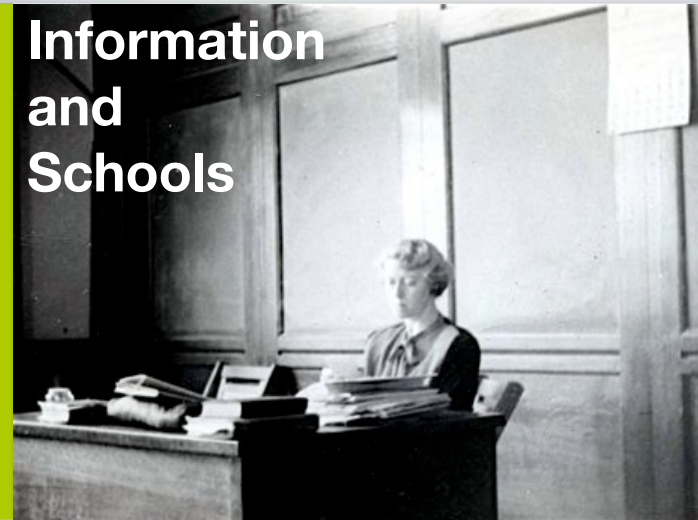
What happens
in schools when life's
an open book test?



**21st century
skills**

**Collaboration
Critical thinking
Communication
Creativity
Connectivity**

**Information
and
Schools**



Literacy ~ Ability to read,
spell and to communicate
through **written language**.



Literate ~ knowledgeable
and educated in a field

**Schools developed
as information
centers.
Teachers functioned
as “information
gatekeepers.”**

**Teachers “*knew*” the
information.**

**Students “*got*” it
from teachers and
“*learned*” it.**

A diagram illustrating information flow in a traditional classroom. It features three main components: a teacher at a whiteboard, a group of students in a lecture hall, and a close-up of a student raising their hand. Two large green arrows indicate the flow of information: one from the teacher to the students, and another from the student in the foreground back towards the teacher. The text 'Information flow in a “traditional” classroom' is positioned below the teacher's image.

Information flow in a
“traditional” classroom



teaching as telling

Our natural, unexamined model for teaching is Telling.

... to carefully and clearly tell students something they did not previously know.

Knowledge is transmitted, we imagine, through this act of telling.

~ Donald Finkel

The results ...

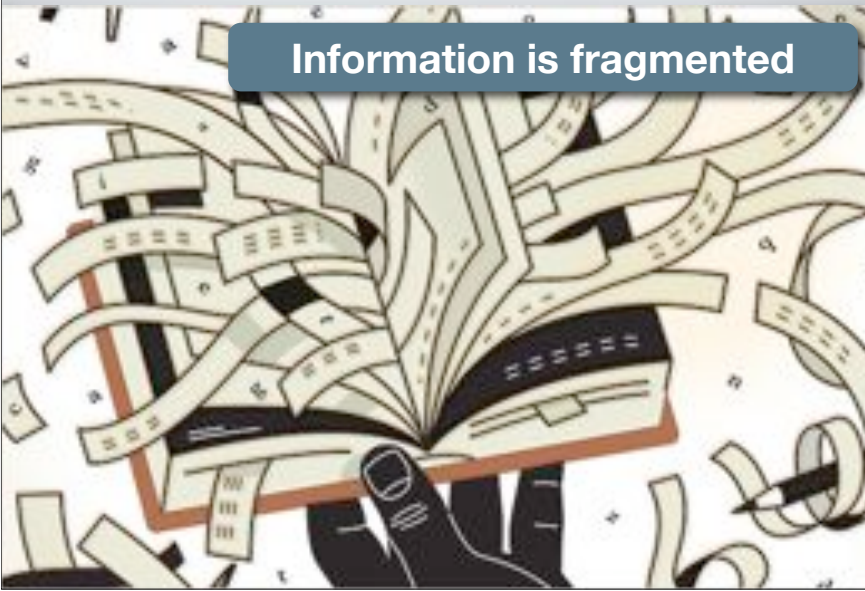
**“No generation
in history has
ever been so
thoroughly
prepared for the
industrial age.”**

~ David Warlick

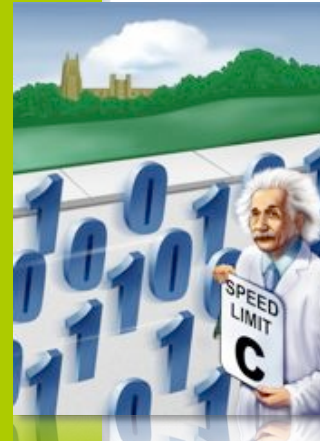
information flow in
the digital age

**Digitized
information
is
*Fluid***

Information is fragmented



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



new
“digital
age”

- Fosters a **bottom-up** information flow.
- **We** can be **creators** as well as consumers of content

Digital tools foster personal creativity

facebook

Facebook is a social utility that connects you with the people around you.

Everyone can use Facebook — [Sign Up](#)

myspace.com.
a place for friends

You Tube

Broadcast Yourself

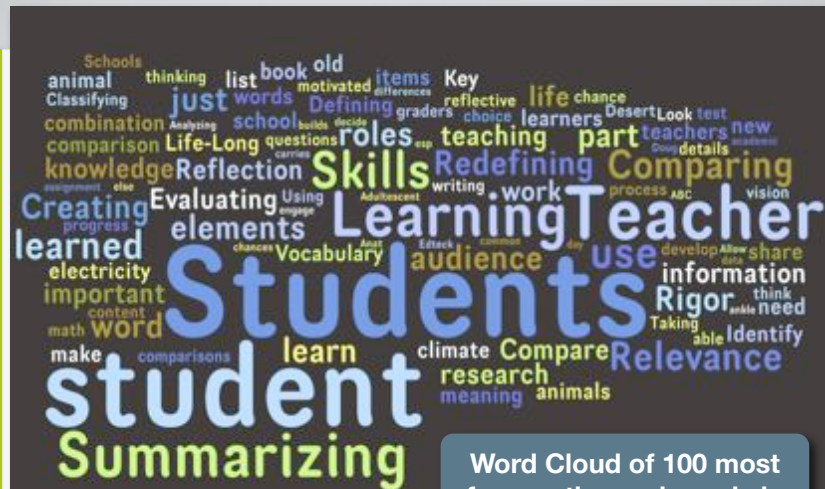
flickr

Share your photos.
Watch the world.

~Doug Reeves



**Technology
helps us see
information
and ideas in
new ways**



Word Cloud of 100 most frequently used words in my workshops

Wordle

- find information
- decode it
- critically evaluate it
- organize it into digital libraries
- be able to share it with others
- maintain a selective focus

Adapted from David Warlick

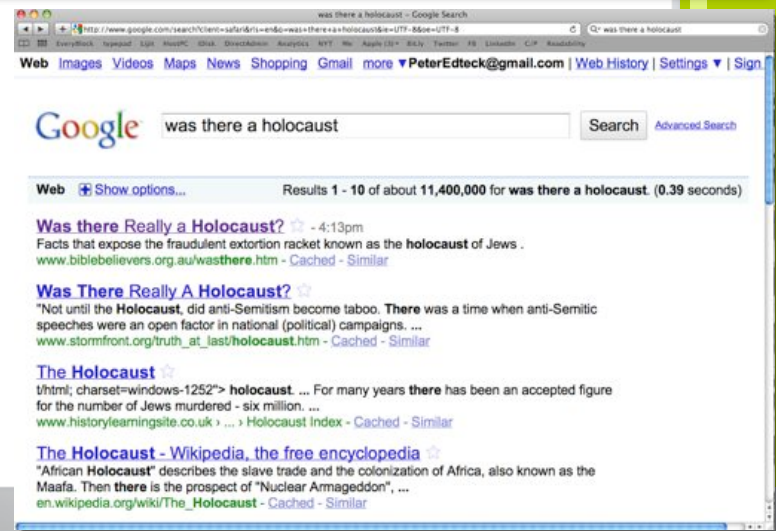
But students are
adrift in a sea of text
without context



And the information
gatekeepers are gone

Search is highly personal
and empowering.
It's the antithesis of
being told or taught.
~ Eric Schmidt, Google CEO

I googled "was there a holocaust"





Literacy is selective focus

To be succesful in
digital age they'll
need to be
reflective
and self-directed

TEACHING:

creating learning
experiences that
provoke student
reflection



Traditional Writing is *Assigned*

Students are asked to
write only on the
teacher's topics.

Student **writes**
for the teacher.

Teacher grades
their writing.

Writing Assigned with *Choice*

Students can
develop topics that
matter to them.

Audience and purpose
for writing
is identified.

Students are asked
to **reflect on**
their growth.

Reflection should be higher- order thinking

It's about
patterns,
evaluations
and creating
goals

Higher and lower-order reflection

- Creating
- Evaluating
- Analyzing
- Applying
- Understanding
- Remembering

I can describe patterns,
create my own connections,
and assess my progress

I can tell you what I did,
but don't expect me to
think about it

Copy Paste
Dedicated to relinquishing responsibility for learning to the students

TERMS OF USE

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The Reflective Principal: A Taxonomy of Reflection (Part IV)

Reflection can be a challenging endeavor. It's not something that's fostered in school - typically someone else tells you how you're doing! Principals (and instructional leaders) are often so caught up in the meeting the demands of the day, that they rarely have the luxury to muse on how things went. Self assessment is clouded by the need to meet competing demands from multiple stakeholders.

In an effort to help schools become more reflective learning environments, I've developed this "Taxonomy of Reflection".

A Taxonomy of Reflection	
Creating: What should I do next?	
Evaluating: How well did I do?	
Analyzing: Do I see any patterns in what I did?	
Applying: Where could I use this again?	

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Taxonomy of Reflection: Students, Teachers, and Principals: <http://bit.ly/8cLsBX>

Effective schools ...
... foster meaningful
experiences that
provoke reflection.
(by students, teachers and principals)

**See my prez presentation on
Reflection at:**
<http://bit.ly/cKbFFj>