

# **21<sup>st</sup> Century Literacy And Learning Part II**



**International Center for  
Leadership in Education**


**With Lin Kuzmich  
Senior Consultant, ICLE  
Port Huron Area School District  
High Schools  
January 2012**

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## Welcome!

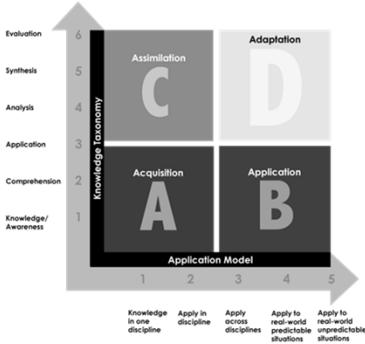
- ▶ Suffering is Optional
- ▶ Participation is Most Appreciated
- ▶ Electronics on vibrate
- ▶ Getting Your Questions Answered
- ▶ Participation Appreciated
- ▶ Computer use for note taking is fine, however please check your email only during breaks or lunch
- ▶ Listen with the Intent to Understand



Kuzmich, 2011 2

## Rigor/Relevance Framework®

All Learning Starts with Great Relationships



3


## High Payoff Literacy Strategies are in these Categories: The Big 8



1. Vocabulary
2. Student Dialogue and Grouping
3. Write to Learn
4. Graphic Organizers and Note Takers
5. Teacher and Student Questioning
6. Document, Technological, and Quantitative Literacy Strategies
7. Leveled Materials and Digital, Multi-Media Resources
8. Text and Media Complexity Access

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## Our Session Agenda




1. Introduction
2. Quantitative versus Qualitative Learners
3. Graphic Organizer ideas for increasing content comprehension and skills demonstration
4. Writing to Learn: "Quick Writes"
5. Think-Pair-Share Reminders
6. WebQuests include all Big 8 Literacy Strategies Areas
7. Your Next Steps

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## 1. Introduction

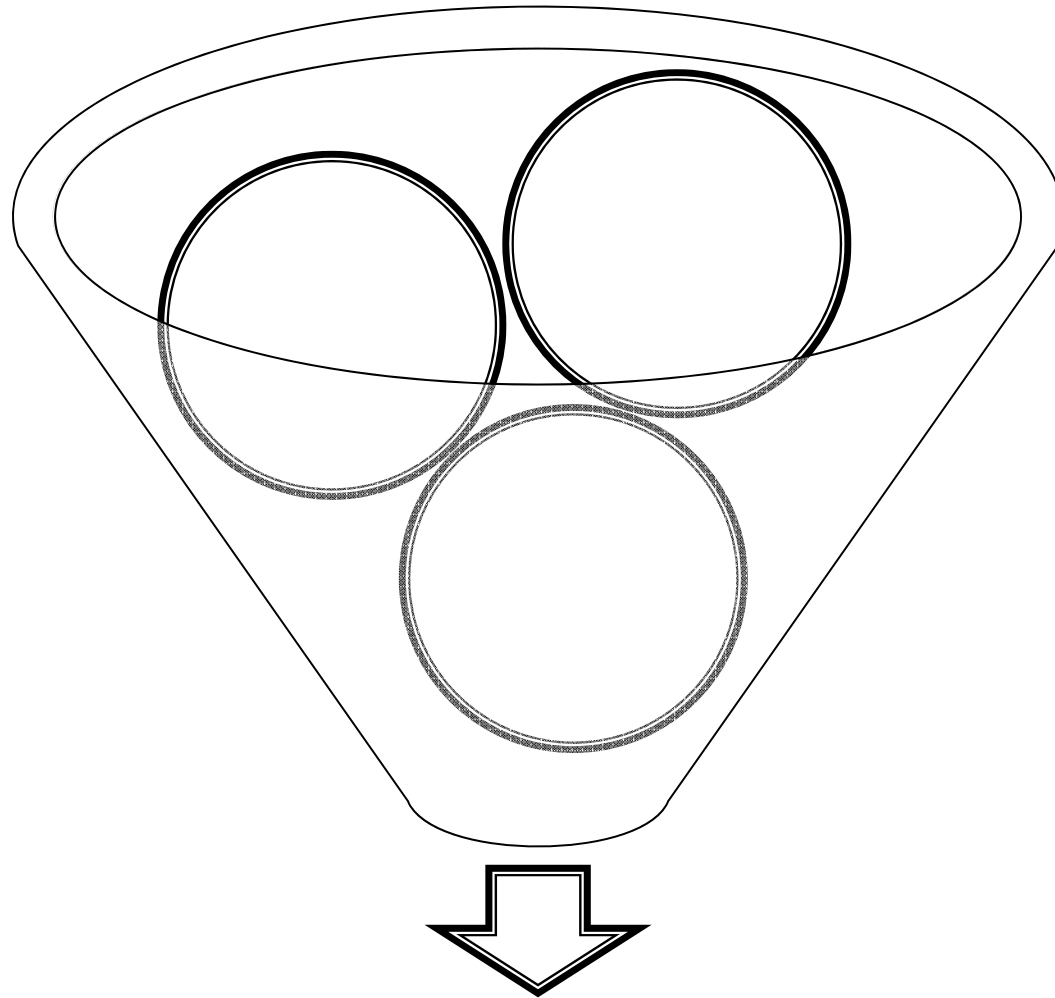
Are you a parietal lobe or temporal lobe thinker when confronted with new learning?

New brain research is used by the military to fine tune the individual training of highly skilled soldiers such as pilots and submariners



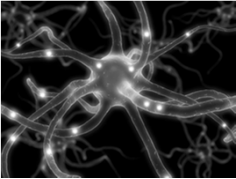
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# My Best New Learning Opportunity Must Include...



Degrees of Learning: 1. I got it! 2. I can independently do something with my new learning? 3. I can teach others!

## 2. Learning and the Brain

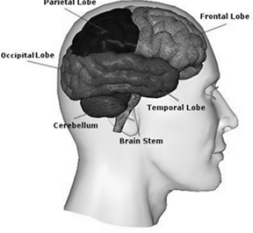


- Are there really different types of learners?
- How can we use this knowledge to improve critical thinking and literacy for diverse learners across content areas?

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## Qualitative versus Quantitative

- Which type of learner are you?
- How about your students?
- Why might this be useful to know?
- How could we use this information to select teaching and learning strategies?




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## Styles of Thinking Impact Learning

3


Quantitative Thinkers



2

1

Qualitative Thinkers



Adapted by L. Kuzmich, 2008 from Air Force Research by the DOD 14

## Mathematical and Scientific Thinkers

### Quantitative Learners

- Emphasize the meaning of each concept or procedure in verbal terms
- Highlight the concept and the overall goal of learning (parts to whole)
- Encourage explicit description of the overall concept and framework for the math...link parts to whole
- Use a step-by-step approach to connect the model to the numerical procedure
- Start with the larger idea and use different approaches to reach the same concept
- Separate multiple tasks into smaller units and explain the connections
- Use visuals and relevant found materials
- Opportunities to explain reasoning
- Practice brainstorming and analogies

Adapted from Sousa, 2007 and Griffin, 2002 15

## Linguistic Thinkers

### Qualitative Learners

- Connect models first to the concept and then to the procedure before you calculate
- Emphasize how individual components contribute to the overall design of a geometric figure or an algebraic expression, cell construction or periodic table
- Encourage explicit description of each step used
- Use simulations, experiments, and real world problems
- Provide opportunities for the student to work in multi-style cooperative groups - grade group contribution and individual work
- Provide a variety of manipulatives and models
- Visuals and videos
- Graphical displays of content work
- Practice inductive and deductive logic

Adapted from Sousa, 2007 and Griffin, 2002 16

## Research Results and Findings

- Semantic organizers, cognitive maps with a mnemonic, and framed outlines were all found to be highly effective in improving reading comprehension in any learning area. Cognitive maps without a mnemonic were found to be moderately effective.
- Graphic organizers were effective regardless of whether they were implemented by teachers or researchers.
- Students using graphic organizers significantly outperformed their peers who did not use graphic organizers regardless of whether they developed their own graphic organizers or used teacher- or researcher-generated ones.
- Students ranging in age from elementary to high school all benefited significantly from using graphic organizers.

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### 3. Graphic Organizers



- What the research says
- What type of organizers work best for your content?
- Reviewing Samples
- Time to develop or make some organizers for your upcoming units

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### Graphic Organizers: Why it Works

Visual Arrays have been shown to raise achievement results in every content area and with every subgroup of students

- Builds cognitive capacity
- Integrating
- Interrelating

Cooperative Grouping has been shown to raise achievement

- Pairs and Triads raise critical thinking levels of students
- With a graphic organizer there is still individual accountability

Writing has been shown to raise achievement results in every content area

- Writing is thinking
- Writing in small bits as well as longer pieces in finishing question



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### Over 29 Major (300+ Total) Studies

As a tool to support students' thinking and learning processes, the 29 largest research studies have shown that graphic organizers help students:

- brainstorm ideas
- develop, organize, sequence, and communicate ideas
- see connections, patterns, and relationships
- assess and share prior knowledge
- develop vocabulary
- outline for writing process activities
- highlight important ideas
- classify or categorize concepts, ideas, and information
- comprehend the events in an article, book, diagram, other visual materials and media (any input type)
- improve social interaction between students, and facilitate group work and collaboration among peers
- guide review and study
- improve reading comprehension skills and strategies at higher levels of thinking
- facilitate recall and longer term retention

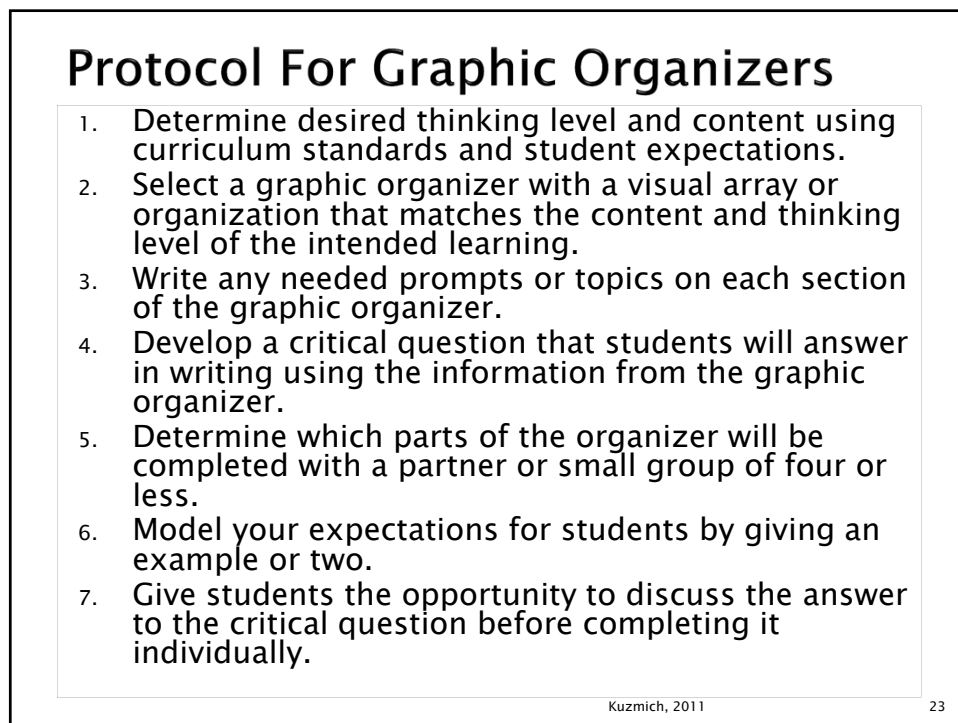
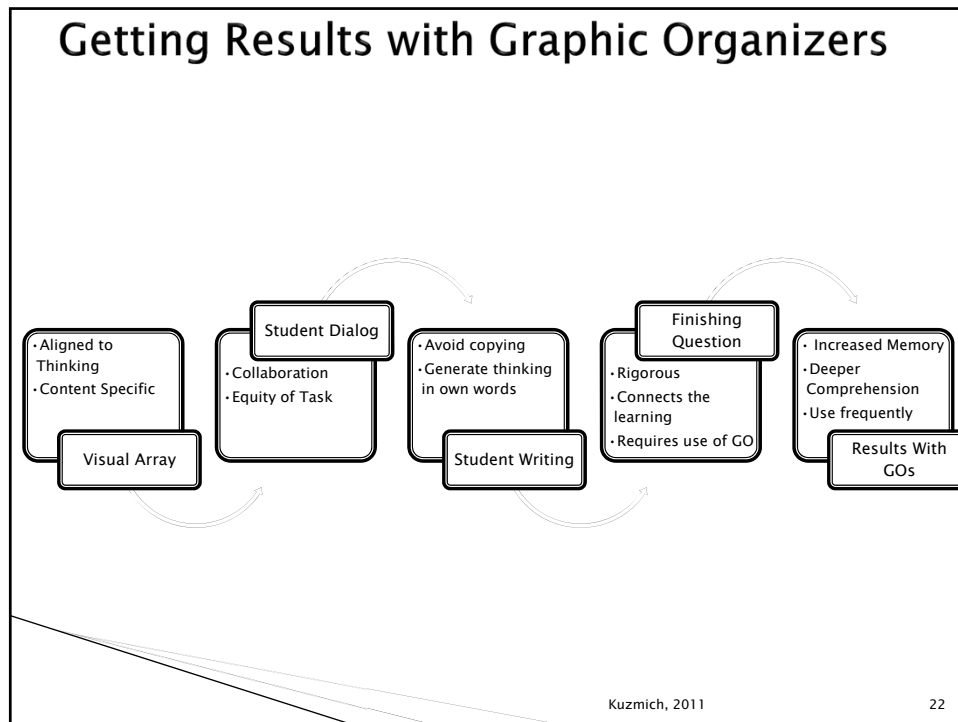
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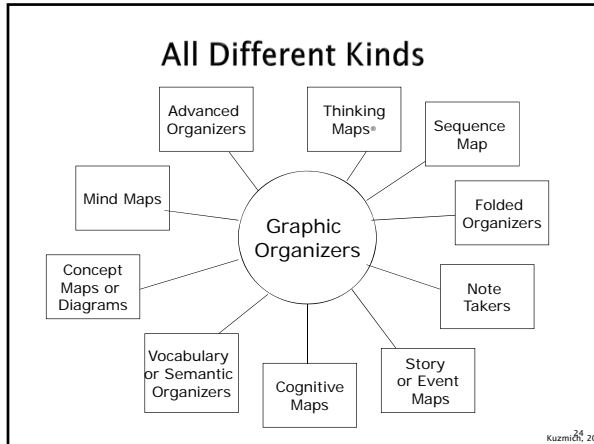
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### Quality Use of Graphic Organizers

- As the journey through new information or a review, but not the end result of learning
- **Use a finishing question to raise rigor and consolidate thinking of individual learners and use the information in the graphic organizer to pull thinking and learning together**
- Use to chunk, sequence, show relationships, compare, analyze, etc.
- Students should do most of the work, limit copying except to set up headings or divisions
- Teach students several types, occasionally have students select which ones to use
- Use with frequency (one to three in a unit of study)
- Pair with structured student dialogue

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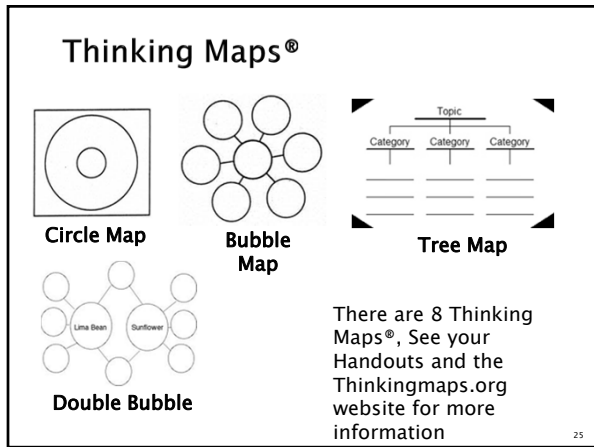
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### Folded Organizers

- ▶ Organizers that use folded pieces of paper to chunk or section learning
- ▶ Check out interactive journals as well. We will talk about this next time with notetaking strategies
- ▶ We will make a Flap Book and Window Pane for an upcoming lesson

**Flap Book Note Taker**

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**Window Pane Note Taker**

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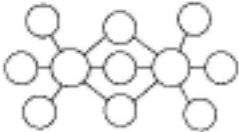
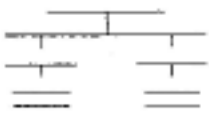
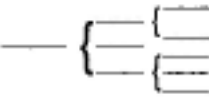

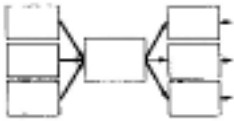

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## Introducing Thinking Maps

Questions from Texts, Teachers and Tests	Thinking Processes	Thinking Maps as Tools
How are you defining this thing or idea? What is the context? What is your frame of reference?	<b>DEFINING IN CONTEXT</b>	Circle Map 
How are you describing this thing? Which adjectives would best describe this thing?	<b>DESCRIBING QUALITIES</b>	Bubble Map 
What are the similar and different qualities of these things? Which qualities do you value most? Why?	<b>COMPARING and CONTRASTING</b>	Double Bubble Map 
What are the main ideas, supporting ideas, and details in this information?	<b>CLASSIFYING</b>	Tree Map 
What are the component parts and subparts of this whole physical object?	<b>PART-WHOLE</b>	Brace Map 
What happened? What is the sequence of events? What are the substages?	<b>SEQUENCING</b>	Flow Map 
What are the causes and effects of this event? What might happen next?	<b>CAUSE and EFFECT</b>	Multi-Flow Map 
What is the analogy being used? What is the guiding metaphor?	<b>SEEING ANALOGIES</b>	Bridge Map 

1-9

Examples of the 8 Thinking Maps® follow.



### Mind Mapping

- ▶ See handouts
- ▶ Visual
- ▶ Colorful
- ▶ Connected
- ▶ Added to over time and learning
- ▶ Arrangement of information or arrangement is individual

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### Concept Map - One Possible Version

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### Advanced Organizers

Examples:

#### Anticipation Guide

#### KWL

K What do you know?	W What do you want to know?	L What have you learned?

Your Pre-Reading or learning	Ideas or Questions	Your post reading or learning finding
	What phase of Mitosis is the Longest?	
	T or F, Mitosis describes cell division	

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### Vocabulary or Semantic Organizer

List Biomes	Plant Life/Vegetation	Typical Animal Life	Ecosystem Characteristics or Climate or Soil Type

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### Sequence Organizers

1 → 2 → 3

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4 or Therefore or Conclusion

1 2 3 4  
5

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### Story or Event Map: Any Array

<p>Historical Event Map may include:</p> <ul style="list-style-type: none"> <li>› Who?</li> <li>› What?</li> <li>› Where?</li> <li>› Why?</li> <li>› How?</li> <li>› Then what?</li> <li>› Current impact?</li> <li>› Impact on you, your family or community?</li> </ul>	<p>ELA Story Map may include:</p> <ul style="list-style-type: none"> <li>› Character</li> <li>› Setting</li> <li>› Plot (Plot Map)</li> <li>› Action</li> <li>› Resolution</li> </ul>
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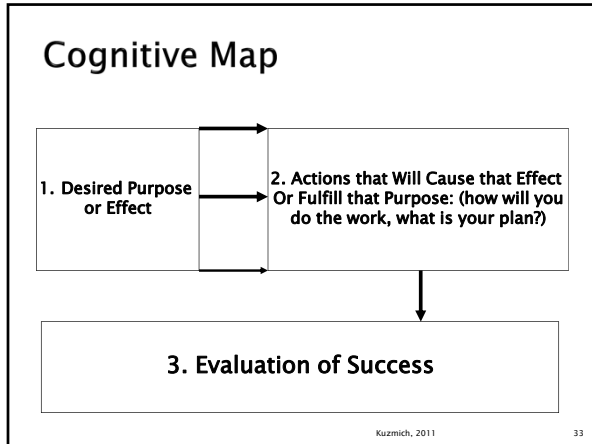
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### Cognitive Map with Mnemonics

Tips for Writing Short Constructed Responses	
<b>A = Answer the Question</b>	In your own words what is the question asking:
<b>B = Connect with a quote (or example)</b>	Select quote (or example):
<b>E = End your thought</b>	What is the last thing you want the reader to know?
Write your SCR here:	

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### Note Takers: One of Many

Big Ideas	Notes, Facts, Attribute, Functions, etc.
Summary	

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**One More Idea - Technology Based: Use SMART ART in Microsoft Office 2007 or 2010 or Inspiration Software**

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**Looking at Examples**

- ▶ Look at examples in your packet
- ▶ Think about an upcoming unit or lesson
- ▶ Create one or two organizers for students as they learn new material, compare or develop complexity of thinking, for review of quantities of material, or a purpose of your choice

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## Links to Graphic Organizers

### Math:

<http://www.sw-georgia.resa.k12.ga.us/Math.html>

<http://www.region15.org/subsite/dist/page/graphic-organizers-3114>

### Science:

<http://www.teachervision.fen.com/slideshow/graphic-organizers/52539.html>

[http://www.abcteach.com/directory/researchreports/graphic\\_organizers/](http://www.abcteach.com/directory/researchreports/graphic_organizers/)

### ELA:

<http://www.region15.org/subsite/dist/page/graphic-organizers-3114>

<http://englishcompanion.ning.com/>

<http://www.nvo.com/ecnewsletter/graphicorganizers/>

<http://www.englishcompanion.com/Tools/notemaking.html>

<http://www.ereadingworksheets.com/e-reading-worksheets/all-reading-worksheets-list/>

### Social Sciences:

<http://www.readingquest.org/strat/>

<http://www.cheney268.com/Learning/Organizers/SocialStudies.htm>

### Free downloads from Various Sources-Cross Content and Grades:

<http://www.smartdraw.com/examples/software-design/>

<http://www.teachervision.fen.com/tv/browse.php?term=351004000000>

<http://www.eduplace.com/graphicorganizer/>

[http://edhelper.com/teachers/graphic\\_organizers.htm](http://edhelper.com/teachers/graphic_organizers.htm)

<http://www.teachervision.fen.com/graphic-organizers/printable/6293.html>

<http://themes.pppst.com/graphic-organizers.html>

[http://its.leesummit.k12.mo.us/graphic\\_organizers.htm](http://its.leesummit.k12.mo.us/graphic_organizers.htm) (links to other sources)

[http://www.educationworld.com/tools\\_templates/](http://www.educationworld.com/tools_templates/)

<http://www.thinkport.org/technology/template.tp>

<http://www.azleisd.net/education/components/scrapbook/default.php?sectiondetailid=16464> (Thinking Maps for Smart Boards)


### 4. Improving Critical Thinking Through "Quick Writes"

What are Quick Writes?	Conditions for Quick Writes
<ul style="list-style-type: none"> <li>▶ Given a prompt, students write for one to three minutes</li> <li>▶ Prompts are specific and about a part of the learning from today or yesterday</li> </ul>	<ul style="list-style-type: none"> <li>▶ Students need paper, note card, or sticky note that can be turned in quickly</li> <li>▶ Don't grade, sort for thinking about content</li> <li>▶ Can give points for completion if needed</li> <li>▶ Use as an informal check for understanding</li> </ul>

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### Writing is to Thinking Like...

- ▶ Writing is to thinking like phonics is to reading fluency
- ▶ Writing increases thinking fluency
- ▶ The more you write, the more fluent your thinking and easier it is to initiate writing tasks



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### Writing to Learn: Quick Writes

- ▶ 1 to 3 minutes (3 to 5 minutes for special needs students or ELL)
- ▶ Sentence or more
- ▶ Used to provide demonstration of thinking on parts, not whole, of a topic, concept, or skill set
- ▶ Diagnostic
- ▶ Not for grading (give a set number of points for compliance if you wish)
- ▶ Allows teacher to check for understanding, adjust pacing and emphasis, offer assistance to those who need additional help or extension of learning

Kuzmich, 2008 40

### Examples

- ▶ Science: Which one of Newton's Laws is the most important and why?
- ▶ Math: What is one strategy you use to help you understand quadratic equation problems and why does it work for you?
- ▶ Social Science: Was MacArthur a great leader? Why or Why not?
- ▶ ELA: What is one character in this book that reminds you of someone you know or have heard and about? What is similar about the character and this person?

Kuzmich, 2011 41

### Science Ideas for Quick Writes

- ▶ What step in the scientific process was the most challenging for this experiment and why?
- ▶ Compare these two concepts, what are the two or three major similarities and differences?
- ▶ What would happen if...?
- ▶ Given the following change in variables or conditions how would that impact...? Why?
- ▶ What are the three major reasons for...?

Kuzmich, 2011

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### ELA Ideas for Journaling or Reflection this Often Works Better than Quick Writes for ELA

- ▶ What life lesson does this part of the book teach us
- ▶ What did learn from this character to apply to your life?
- ▶ Why did the author decide to ... in this piece?
- ▶ What character traits should ... avoid listing on their Facebook page and why?
- ▶ Which two literacy devices are the most important in this genre and why?
- ▶ Have you seen a TV show where characters had to solve a similar problem? What was it and how did it turn out?

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### Math Ideas for Quick Writes

- ▶ Given a problem and solution (You can use one from the book, homework, or post one):
  - Does this make sense and why?
  - Why is this right or wrong?
  - Which strategy should you use to solve this problem and why?
  - What is your tips list for solving these kinds of problems?
- ▶ Which 2 answers in these MC examples are wrong and why? Or, which is the most likely answer and why?
- ▶ Make up your own real world problem and suggest the best way to solve it.
- ▶ Which was the most challenging problem on your homework? Why was it challenging or how did you solve it?
- ▶ What is one strategy you use to help you understand quadratic equation problems and why does it work for you?

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### Math and Science Framed Quick Writes

- ▶ When \_\_\_\_\_, then \_\_\_\_\_.  
 Independent Variable or Event      Dependent Variable or Event
- ▶ \_\_\_\_\_ depends on \_\_\_\_\_.  
 Dependent Event      Independent Event
- ▶ \_\_\_\_\_ is a Function of \_\_\_\_\_.

Adapted from Pasadena ISD  
Math/Science

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## Quick Writes for Math

By Lin Kuzmich

Copyright 2011 from Stretch Learning Handbook

### Rules for Quick Writes:

- 1 to 3 minutes or 3 to 5 minutes for struggling students
- One sentence or more at the secondary level
- Used to provide demonstration of thinking on parts, not the whole, of a topic, concept, or skill set
- Diagnostic. So, not necessarily for grading (give a set number of points for compliance if you wish)
- Allows teacher to check for understanding, adjust pacing and emphasis, offer assistance to those who need additional help or extension of learning

### Math Examples to use over and over, just insert the specific mathematical concept, procedure or process students are learning.

- Given a problem and solution (You can use one from the book, homework, or post one), ask any one of these:
  - Does this make sense and why?
  - Why is this right or wrong? Fix the wrong one.
  - Which strategy should you use to solve this problem and why?
  - What is your “tips” list for solving these kinds of problems?
- Given a multiple choice item in math that involves words not answers: Which 2 answers in these MC examples are wrong and why? Or, which is the most likely answer and why?
- Make up your own real world problem and suggest the best way to solve it or solve it.
- Which was the most challenging problem on your homework? Why was it challenging or how did you solve it?
- What is one strategy you use to help you understand quadratic equation (insert whatever you are studying) problems and why does it work for you?
- What step in the problem solving process for...(conic sections for example) was the most challenging for this test or assignment and why?
- Write a note to yourself on your homework. What is one thing you need to remember to do well on these types of problems?
- Compare these two problems. (Like a y-intercept and an x-intercept equation) What are differences or similarities in the steps to solve each type? (Select similarity or difference, not both it will take too long to answer.)
- What steps would we need to take to solve.... if...( After the word “if” include content specific change, such as: a numeral or fraction preceding a variable, add an exponent, a change in the mode, include parenthesis in a linear equation, or etc.)?
- Given the following change in variables or conditions, how would that impact...?
- Why? Or Why not?
- What are the three major reasons for...doing a problem or set of procedures a certain way?
- Explain.... Or Describe.... (Just keep it simple or it will take kids too long. Example if you ask for all the steps in a problem it might take 20 minutes. If you ask them to explain just step two or describe how they checked their answer it won't take as long and is more of “Quick Write.”)

*Dear Math Teachers,*

*This will help you get started. Rotating between these and doing Quick Writes every other day or even every day improves overall assessment results. Tips: 1. with struggling learners, talk out the answer with a partner first, and then write it down; 2. add one to your closing or 3. Add one to a homework assignment now and then. Try the simpler ones first to get students going. Model a couple of answers to show them what “good” looks like. Remember that your question is too broad if it takes the average student more than 3 minutes or so to answer. Hope this is helpful, Lin Kuzmich*



### Social Science Ideas for Quick Writes

- ▶ What was the most important cause of ... and why?
- ▶ Would you have done the same thing? Why or why not?
- ▶ Which result, impact, or effect still influences us today and why?
- ▶ Compare ... and ... in terms of the impact on the environment, people or economics
- ▶ Why did ... happen?
- ▶ If ... did not happen, how would that change history?
- ▶ Would ... be your hero? Why or why not?

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### Social Science Framed Quick Writes

- ▶ When \_\_\_\_\_, then \_\_\_\_\_.  
Action Condition  
Therefore, the effect is \_\_\_\_\_.
- ▶ \_\_\_\_\_ depends on \_\_\_\_\_.  
Effect Action or Condition
- ▶ \_\_\_\_\_ is a Function of \_\_\_\_\_.

Kuzmich, 2011

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### CTE Examples for Quick Writes

- ▶ Compare these two solutions. Which would be best given your primary objective, the customer's wishes or your task?
- ▶ Create a brief dialogue with a customer who is complaining about... that solves the issue in an appropriate way.
- ▶ What would you do next and why?
- ▶ What is the sequence of steps for this task?
- ▶ What are the usual causes of this type of problem?
- ▶ Create a solution for ...
- ▶ Why did ... happen?
- ▶ How could you prevent...from occurring?

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### More on Writing Prompts and Questions

- ▶ **Essay Level** --- or for younger students, **paragraph(s):**
  - Why is ecology important? (use learning to write protocols and tools)
- ▶ **Short Constructed Response:**
  - What is one thing you could do for the good of the environment? (use writing to learn, explain and describe protocols)
  - Would putting more trash barrels out on campus or placing posters up about trash work better and why? (Use writing to learn persuasive protocols)
- ▶ **Quick Write:**
  - List 2 or 3 ideas to prevent or reduce littering, please justify each item on your list. (use quick write ticket out on small piece of paper or note card)

What are the differences among these prompts?

Kuzmich 2007

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## Prompts Matter

- ▶ Manage time – 1 to 3 minutes, so pick a reasonable writing prompt
- ▶ Manage relevance – dealing with how the learning connects to the learner or their life increases memory
- ▶ Manage rigor – try for analysis, synthesis, or evaluation, this also increases long term memory
- ▶ Manage concepts and vocabulary of the content
- ▶ Examples:
  - Poor: What were the causes of the Vietnam War?
  - Better: What was the most critical cause of the Vietnam War?
  - Best: Which cause for the Vietnam war is most similar to the causes for the current Iraqi War and why?

Kuzmich 2007

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## Writing Great “Quick Write” Prompts

### 1. Quote Method

- ▶ Response to a quote from any text is easy
- ▶ Compare to your life, family, community and you add relevance easily
- ▶ Compare to other learning and you add great critical thinking
- ▶ Evaluate the worth, pros/cons, rightness of the quote and you add great brain based critical thinking

### 2. Picture it Method

- ▶ Use a picture, graph, map, chart or table, video clip as the basis of your prompt
- ▶ Ask a comparison, main idea, summary, evaluation, pattern or relevancy question

Kuzmich 2009

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## More Ideas for “Quick Write” Prompts

### 3. Vocabulary Study

- ▶ Take a vocabulary word and ask students to come up with examples, comparisons, uses for the word or words
- ▶ Categorize groups of words and write about the category title and what makes the words in that category fit
- ▶ Explain the opposite of a word and its use as well as the original word and its use
- ▶ Come up with an analogy using the word and explain the relationships between the word and the analogy
- ▶ Write a short poem (maybe a Haiku) or limerick about the word

### 4. Sticky Content

- ▶ Content sticks when you use it in writing about a relevant topic
- ▶ Ask: Why? How? What if?
- ▶ Ask students to justify or prove something
- ▶ Real world use for content is a great quick write and increases memory as well.

Kuzmich 2009

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## Your Turn

- ▶ Develop content specific quick writes you can use this week and next
- ▶ Try to get students to analyze, summarize, or evaluate in the quick write as much as possible
- ▶ Try for daily, if not go for 3 a week as a minimum
- ▶ Practice with students, show them expectations and examples
- ▶ ELA Only: Don't use in ELA if you already do journal entries frequently, if not try this or journaling, create prompts for upcoming weeks

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## 5. Start with Think–Pair–Share

- ▶ Use Daily
- ▶ Shoulder partners, Clock Appointment Partners, dots or cards on desks, set the pairs up in any way that makes sense. Set up pairs ahead of time.
- ▶ Protocol for Think–Pair–Share:
  1. Set pairs up
  2. Give prompt
  3. Give partners some form of accountability for the pair or individual by writing something down
  4. Share with rest of group, select randomly, don't wait for volunteers
  5. Give feedback on the quality of thinking as well as the content accuracy, demonstration, and/or understanding

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## Tips for Think–Pair–Share

### ▶ Think

- Use a question that is quickly answered
- Try to increase the critical thinking or rigor level of students with higher level questions
- Prepare questions or question stems that you can use again and again, just adding content specificity as needed

See your handouts for more ideas and uses for Think–Pair–Share

**Remember to use this method daily or even a few times per class during initial instruction, review, and when adding complexity to already attained concepts.**

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## More Tips for Think–Pair–Share

- ▶ **Pair**
  - Have a system of partnerships set up ahead through marking on desks like dots or cards, proximity, or pre-arranged partners like Clock Partners
  - Use proximity when time is short, try moving to partners when you have more time
- ▶ **Share**
  - Use random methods of calling on partner groups
  - Require a product before sharing such as a Quick Write, diagram, chart, picture, answer to a question, list, etc.
  - Call on at least three to four partner groups
  - Use Pairs Squared for sharing for variety

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## The Brain Remembers More with Dialog

- ▶ Remember that Think–Pair–Share is a brain friendly strategy you can use for processing pauses that must take place every 7 to 12 minutes during new learning presentations.
- ▶ Add writing or drawing to any stage of Think–Pair–Share to add individual accountability as well as increase individual rehearsal of thinking and learning.
- ▶ Develop 3 to 4 Think–Pair–Share prompts for an upcoming lesson where new learning will be delivered

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## 6. WebQuests

- ▶ Use to increase comprehension and motivation
- ▶ Use it as a lecture substitute
- ▶ Use it as a guided research method
- ▶ Use it to motivate deeper thinking about an issue, topic, problem or approach



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## Using WebQuests

- ▶ Review existing examples
- ▶ Use the examples or modify them for your own learning goals
- ▶ Students can modify an existing WebQuest with updated information or additional skills
- ▶ Students can create a WebQuest instead of a PowerPoint to doing a presentation
- ▶ Create a Jigsaw Using WebQuests for learning large amounts of content in a motivating way
  1. Divide students into groups, give each the assignment to create a WebQuest over a piece of the content or skills.
  2. Create a graphic organizer for note taking.
  3. Each student completes the WebQuest from each group taking notes and producing products.
  4. Each student answer a critical question or questions in writing as a result of learning through each WebQuest.

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## What is a WebQuest?

According to Bernie Dodge, the originator of the WebQuest concept a WebQuest is:

- ▶ an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web
- ▶ WebQuests are designed to use learners' time well, to focus on *using* information rather than on looking for it, and to support learners' thinking at the levels of analysis, synthesis, and evaluation.

## Why WebQuests?

- ▶ allow students to explore issues and find their own answers
- ▶ give students a task that allows them to use their imagination and problem-solving skills
- ▶ wonderful way of capturing students' imagination and allowing them to explore in a guided, meaningful manner
- ▶ Increases comprehension, vocabulary, writing and collaboration skills
- ▶ Uses question, text access, text and media based literacy learning strategies and note taking skills

## The Well Planned WebQuest

- ▶ has guidance for students, a creative end project with room for flexibility, and links that help answer questions and positively add to the project
- ▶ designed for students to work independently, allowing the teacher to be a facilitator in students' learning rather than the sole dispenser of knowledge

## 6 Parts of a WebQuest

1. **The Introduction** orients students and captures their interest.
2. **The Task** describes the activity's end product.
3. **The Process** explains strategies students should use to complete the task.
4. **The Resources** are the Web sites students will use to complete the task.
5. **The Evaluation** measures the results of the activity.
6. **The Conclusion** sums up the activity and encourages students to reflect on its process and results.

## WebQuest Resources

<http://www.kn.pacbell.com/wired/fil/>  
<http://www.zunal.com/>  
<http://questgarden.com/45/16/9/070114102531/index.htm>  
<http://webquest.org>

## Your Task


- ▶ Directions for WebQuest based learning are in your handouts
- ▶ You can take the WebQuest first or explore examples of WebQuests for your content area, please select what would be the most beneficial
- ▶ You can try out an already created WebQuest on your students by taking them to a lab or bringing portable computers into your classroom, you can assign it as part of tutorial work with you after school or for homework or even test review
- ▶ If you and your students find WebQuests beneficial try one out occasionally. Invite student to make their own instead of other projects or presentation methods.

## 7. Next Steps


**Your possible "to do" list:**

- Implement what you learned today about the brain and learning all during the coming school year.
- Select two or more strategies to get you started with brain based learning and content based literacy instruction

**Students who can read, write, speak, and listen with rigor and relevance can do anything given a caring environment!**



## May Your Moments be Many!



**"Educators are addicted to the moment when a student's eyes light up, when the teaching becomes learning. May your days be filled with such moments."**

Philip Patrick Horenstein



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## WebQuests

Webquests are an easy way to create an inquiry project that is rigorous and relevant to students. Given a relevant topic or task and analysis, evaluation or creation based thinking this is a Quadrant D project.

Webquests can take one period in a lab like the one you are doing today or several days. There are many prepared Webquests online that other teachers have already prepared. The link you will follow today for your Webquest is an easy and free site to create your own quest for students. Once you make it through this Webquest, feel free to start the creation of your own for students. Please keep the following rules of high quality Webquests in mind as you get started.

### A Real WebQuest...

- is wrapped around a doable and interesting task that is ideally a scaled down version of relevant things that adults do as citizens or workers.
- requires higher level thinking, not simply summarizing. This includes synthesis, analysis, problem-solving, creativity and judgment.
- makes good use of the web. A WebQuest that isn't based on real resources from the web is probably just a traditional lesson in disguise. (Of course, books and other media can be used within a WebQuest, but if the web isn't at the heart of the lesson, it's not a WebQuest.)
- isn't a research report or a step-by-step science or math procedure. Having learners simply distilling web sites and making a presentation about them isn't enough.
- isn't just a series of web-based experiences. Having learners go look at this page, then go play this game, then go here and turn your name into hieroglyphs doesn't require higher level thinking skills and so, by definition, isn't a WebQuest.

*“A Real Webquest” is from the following site: <http://webquest.org/index-create.php> This site is also a great source of information about Webquests, how to create them and how to find good existing quests.*

Other suggestions for creating a great Webquest:

1. Develop one to three higher level critical questions about a relevant problem or project your students will answer as part of this question.
2. Develop a student self-evaluation as part of the quest. Have students self assess the quality of their thinking as well as any product they produce.
3. Try out one or two of the free WebQuest creators at <http://webquest.org> before you select the one that will work for your content area and age of students. If your district blocks these sites you can ask them to reconsider. If not, you can use a linked document from Word, a shared document on Google or PowerPoint to create your quest.
4. Start by creating one that takes just a short time, say one period or 30-45 minutes.

### Getting Started

Your WebQuest for today is located at the following link: Please complete as many of the tasks as you can in the time given. If you have time when you are finished, you may

1. Search for existing WebQuests for your content area, start here:

<http://www.zunal.com/index-matrix.php>

2. Start creating your own WebQuest

<http://www.zunal.com/webquest.php?w=118661> (control click to get to this link)

## WebQuest Evaluation

A WebQuest is an inquiry-oriented lesson format in which most or all the information that learners work with comes from the web. WebQuests are an educational tool that works with any academic subject. If the WebQuest is well designed & has relative advantage it can be used to address the many learning levels you will find in your classroom. In addition a well designed WebQuest always incorporates differentiated instruction.

Search the internet & choose a WebQuest that is appropriate for your teaching goals. Evaluate the site using the following 9 questions.

- 1) Authority: What are the author's credentials?
- 2) Affiliation: Who sponsors the web site? Do they have any biases or agendas?
- 3) Purpose: Why is the web site there?
- 4) Objectivity: How objective is the information?
- 5) Audience: Who is the web site intended for?
- 6) Currency: How up to date is the web site?
- 7) Design: How effective is the site at getting its point across? How easy is it to navigate?
- 8) Relative Advantage: How does the information provided fit with my instructional purposes?
- 9) Learning Process: Will the web site lead my students to higher order thinking & learning?
- 10) What is the web address for this WebQuest?

LEVEL	Beginning	Developing	Accomplished	Score
<b>Overall Aesthetics</b> (This refers to the WebQuest page itself, not the external resources linked to it.)				
<b>Overall Visual Appeal</b>	0 points There are few or no graphic elements. No variation in layout or typography <b>OR</b> Color is garish and/or typographic variations are overused and legibility suffers. Background interferes with the readability.	2 points Graphic elements sometimes, but not always, contribute to the understanding of concepts, ideas and relationships. There is some variation in type size, color, and layout.	4 points Appropriate and thematic graphic elements are used to make visual connections that contribute to the understanding of concepts, ideas and relationships. Differences in type size and/or color are used well and consistently.	
<b>Navigation &amp; Flow</b>	0 points Getting through the lesson is confusing and unconventional. Pages can't be found easily and/or the way back isn't clear.	2 points There are a few places where the learner can get lost and not know where to go next.	4 points Navigation is seamless. It is always clear to the learner what all the pieces are and how to get to them.	
<b>Mechanical Aspects</b>	0 points There are more than 5 broken links, misplaced or missing images, badly sized tables, misspellings and/or grammatical errors.	1 point There are some broken links, misplaced or missing images, badly sized tables, misspellings and/or grammatical errors.	2 points No mechanical problems noted.	
<b>Introduction</b>				
<b>Motivational Effectiveness of Introduction</b>	0 points The introduction is purely factual, with no appeal to relevance or social importance <b>OR</b> The scenario posed is transparently bogus and doesn't respect the media literacy of today's learners.	1 point The introduction relates somewhat to the learner's interests and/or describes a compelling question or problem.	2 points The introduction draws the reader into the lesson by relating to the learner's interests or goals and/or engagingly describing a compelling question or problem.	
<b>Cognitive Effectiveness of the Introduction</b>	0 points The introduction doesn't prepare the reader for what is to come, or build on	1 point The introduction makes some reference to learner's prior	2 points The introduction builds on learner's prior knowledge and effectively prepares the	



	what the learner already knows.	knowledge and previews to some extent what the lesson is about.	learner by foreshadowing what the lesson is about.	
<b>Task</b> (The task is the end result of student efforts... not the steps involved in getting there.)				
<b>Connection of Task to Standards</b>	0 points The task is not related to standards.	2 points The task is referenced to standards but is not clearly connected to what students must know and be able to do to achieve proficiency of those standards.	4 points The task is referenced to standards and is clearly connected to what students must know and be able to do to achieve proficiency of those standards.	
<b>Cognitive Level of the Task</b>	0 points Task requires simply comprehending or retelling of information found on web pages and answering factual questions.	3 points Task is doable but is limited in its significance to students' lives. The task requires analysis of information and/or putting together information from several sources.	6 points Task is doable and engaging, and elicits thinking that goes beyond rote comprehension. The task requires synthesis of multiple sources of information, and/or taking a position, and/or going beyond the data given and making a generalization or creative product.	
<b>Process</b> (The process is the step-by-step description of how students will accomplish the task.)				
<b>Clarity of Process</b>	0 points Process is not clearly stated. Students would not know exactly what they were supposed to do just from reading this.	2 points Some directions are given, but there is missing information. Students might be confused.	4 points Every step is clearly stated. Most students would know exactly where they are at each step of the process and know what to do next.	
<b>Scaffolding of Process</b>	0 points The process lacks strategies and organizational tools needed for students to gain the knowledge needed to complete the task.  Activities are of little significance to one another and/or to the accomplishment of the task.	3 points Strategies and organizational tools embedded in the process are insufficient to ensure that all students will gain the knowledge needed to complete the task.  Some of the activities do not relate specifically to the accomplishment of the task.	6 points The process provides students coming in at different entry levels with strategies and organizational tools to access and gain the knowledge needed to complete the task.  Activities are clearly related and designed to take the students from basic knowledge to higher level thinking.	

<b>Richness of Process</b>	0 points Few steps, no separate roles assigned.	1 points Some separate tasks or roles assigned. More complex activities required.	2 points Different roles are assigned to help students understand different perspectives and/or share responsibility in accomplishing the task.	
<b>Resources</b> (Note: you should evaluate all resources linked to the page, even if they are in sections other than the Process block. Also note that books, video and other off-line resources can and should be used where appropriate.)				
<b>Relevance &amp; Quantity of Resources</b>	0 points Resources provided are not sufficient for students to accomplish the task. <b>OR</b> There are too many resources for learners to look at in a reasonable time.	2 point There is some connection between the resources and the information needed for students to accomplish the task. Some resources don't add anything new.	4 points There is a clear and meaningful connection between all the resources and the information needed for students to accomplish the task. Every resource carries its weight.	
<b>Quality of Resources</b>	0 points Links are mundane. They lead to information that could be found in a classroom encyclopedia.	2 points Some links carry information not ordinarily found in a classroom.	4 points Links make excellent use of the Web's timeliness and colorfulness.  Varied resources provide enough meaningful information for students to think deeply.	
<b>Evaluation</b>				
<b>Clarity of Evaluation Criteria</b>	0 points Criteria for success are not described.	3 points Criteria for success are at least partially described.	6 points Criteria for success are clearly stated in the form of a rubric. Criteria include qualitative as well as quantitative descriptors.  The evaluation instrument clearly measures what students must know and be able to do to accomplish the task.	
<b>Total Score</b>				<b>/50</b>

Original WebQuest rubric by [Bernie Dodge](#).

This is Version 1.03. Modified by Laura Bellofatto, Nick Bohl, Mike Casey, Marsha Krill, and Bernie Dodge and last updated on June 19, 2001

## ABOUT LIN KUZMICH

Lin Kuzmich is an educational consultant and bestselling author from Loveland, Colorado. She served Thompson School District in several roles as the Deputy Superintendent, Executive Director of Secondary and Elementary Instruction, Director of Professional Development and she was a building principal for nine years. Lin's school was named a 2000 winner of the John R. Irwin Award for Academic Excellence and Improvement. In addition, for the past decade she was involved in staff development through several universities and the Tointon Institute for Educational Change. Lin served as an Adjunct Professor and Instructor at Colorado State University and University of Northern Colorado in the Principal Preparation Programs. She is a Senior Consultant for the International Center for Leadership in Education. Lin also provides training and consulting to school districts around the country and presents at numerous national and international conferences. Lin Kuzmich can be reached at 970-669-2290 (home/office) 970-203-4176 (cell) or [kuzenergy@gmail.com](mailto:kuzenergy@gmail.com) and her website is [www.KuzmichConsulting.com](http://www.KuzmichConsulting.com)

Lin's additional experience includes: Assistant Director of Special Education (1988-1991); Vision Specialist and Reading Teacher for Thompson School District (1979-1988). She also taught high school reading, high school and middle school English/Language Arts, K-12 special education and 4<sup>th</sup> - 6<sup>th</sup> grades for Denver Public Schools (1974-79). Lin earned the *Teacher of the Year Award* for Denver Public Schools in 1979 and was *Northern Colorado Principal of the Year in 2000* for Colorado Association of School Executives.

Lin currently works with schools and districts across the country that are struggling to meet the needs of diverse learners, the requirements of AYP and the changing educational practices needed for the future success of our students. Lin's work with schools improves achievement results for students and increases the capacity of staff. Lin is passionate about helping educators prepare today's students for a successful future.

### Lin's Publications:

- Stretch Learning Handbook- With Units and Strategies Aligned to Common Core State Standards (2011) International Center for Leadership in Education
- "Manage the Molehill Before It Becomes a Mountain: Keeping Parent Interactions Productive for Students" in Leadership for Family and Community Involvement Edited by Cole, Blankstein and Houston for the Soul of Leadership Series (2010) Corwin Press
- Stretch Learning: Rigor and Relevance for an Unpredictable World (2010) International Center for Leadership in Education. (Multi-Media Kit)
- Student Team That Get Results: Teaching Tools for the Differentiated Classroom (2010) Corwin Press, co-author Gayle Gregory.
- "Test Preparation Strategies that Have High and Quick Payoff," (March 2010) Successful Practices Network Monthly Online Publication
- "Ensuring Access through Differentiated Instruction" in The Special EDge, Vol. 21, Num. 3 Summer 2008, co-authored with Dr. Willard Daggett
- Redefining Literacy in Grades 7-12: Strategies for Document, Technological and Quantitative Literacy (May 2007) International Center for Leadership in Education. (Multi-Media Kit)
- Teacher Teams that Get Results: 61 Strategies for Sustaining and renewing Professional Learning Communities (January 2007) Corwin Press, co-author Gayle Gregory. (Bestseller)
- "Redefining Literacy for the 21<sup>st</sup> Century," (2006a) Successful Practices Network Monthly Online Publication
- "Tips for Credit Recovery Programs," (December 2006b) Successful Practices Network Monthly Online Publication
- Differentiated Literacy Strategies for Student Growth Grades 7-12, (2005b), Corwin Press, co-author Gayle Gregory. (Bestseller)
- Differentiated Literacy Strategies for Student Growth Grades K-6, (2005a) Corwin Press, co-author Gayle Gregory. (Bestseller)
- Data Driven Differentiation in the Standards Based Classroom, (2004) Corwin Press, co-author Gayle Gregory. (Bestseller)
- "Taking Professional Care of New Teachers," CSDC Network News, October 2001.
- Data Driven Instruction, (1998) Colorado: CBOCES.
- Facilitating Teacher Evaluation in a Standards-Based Classroom, (1996) Colorado: CBOCES, Co-authored with Randy Zila, Linda Gleckler and Pete Denzin.
- "Neurophysiological Development: A Review for Educators," The Journal of Professional Studies, Vol. 5 No. 1, Feb. 1980.