

## Uncommon Uses for Common Tools in an On-line Environment

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Both on-line and face-to-face courses rely on textbooks as an important source of information for students. A challenge for instructors in an on-line setting is to insure that students are learning from their textbooks. One way to address this challenge is to use productivity software tools to develop assignments that promote student thinking and interaction with course content. This paper gives examples and directions of activities that are easy to design and relatively easy to grade, but require thought on the part of the students to complete. The assignments are based on graphic organizers discussed in K-12 reading methods textbooks such as those by Gunning (2004) and Vacca & Vacca (2005). Graphic organizers are typically designed for students to complete using paper and pencil. With slight modifications, higher education faculty can design challenging assignments based on graphic organizers that can be distributed to students and completed by students electronically.

### H-Chart

An H-Chart is similar in function to a Venn Diagram and is used to compare and contrast two items. The sample below asks teacher education students to compare and contrast two major theorists, Vygotsky and Piaget after reading the appropriate chapter in their textbook.

#### *Piaget*

- Thinking evolves *Both* through a series of hierarchical stages
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- Children need to interact with their world

#### *Vygotsky*

- Difference between actual and potential development is known as Zone of Proximal Development
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**Directions for Creating:** Use the Table feature of your word processor to create the H-Chart.

1. Type directions for the activity at the top of the page.
2. Insert a table with three columns and three rows.
3. Merge the cells in the first and last columns.
4. Hide the top border of the top row of the center column. Hide the bottom border of the last row of the center column.
5. Label the three portions of the "H".
6. Provide statements under the chart that students copy and paste into the appropriate spot. Alternatively, ask students to come up with a specified number of points for each section of

the diagram. Providing statements in random order makes the assignment very easy for the instructor to grade.

7. Students upload the completed diagram to the course management system drop box.

## Sorting

Sorting activities are good for reinforcing concept development. Sorts can be open or closed. In a closed sort, the instructor provides the categories and the items to be sorted. In an open sort, the instructor provides the items to be sorted and the students determine the categories. Alternatively, the instructor could provide the categories and the students provide the items that fit the categories. Students can be asked to write a paragraph explaining or justifying why they sorted the items the way that they did. This gives the instructor insight into the students' thinking and reasoning. The sample of a closed sort below asks teacher education students to sort a series of statements under the philosophical approach to reading that the statements represent.

### Philosophical Approaches to Teaching Reading Sort

Copy the statements below the chart and paste them under the approach that they illustrate. **Note:** The columns will not necessarily be even!

<i>Top Down</i>	<i>Interactive</i>	<i>Bottom Up</i>
Mistakes in oral reading should be ignored unless they change the sense of the passage.	Teach phonics and then teach students to apply this skill to real reading.	Oral reading should be accurate.

**Directions for Creating:** Use the Table feature in your word processor to create sorting activities.

1. Determine how many categories you need for the activity and draw a table with that many columns.
2. Type the categories at the top of each column.
3. Add enough rows to accommodate the largest number of statements/words under each category.
4. Use the borders and shading features to “dress-up” the table.
5. Add statements or words under the table that students copy and paste under the appropriate category.

## Frames

Frames (also called Chart Diagrams or Matrix Diagrams) are useful if you want your students to condense and organize data about the traits of multiple items. When completed, students have a succinct summary of a unit of instruction. Frames can be used in any subject area, but are espe-

cially useful in the sciences. Completed frames make wonderful study guides for exams. The following frame has comparative religions students determine how each religion views the questions posed in the first column.

### Comparative Religions Frame

**Directions:** Complete the frame by describing how each of the religions views the questions listed in the first column.

	<i>Buddhism</i>	<i>Hinduism</i>	<i>Islam</i>	<i>Judaism</i>
<i>Nature of the Divine</i>				
<i>Problem of Evil</i>				
<i>Problem of Suffering</i>				
<i>Issues of Justice/Ethics</i>				
<i>Righteousness (Right Doing)</i>				
<i>Rewards for Justice/Righteousness</i>				
<i>Afterlife and Its Nature</i>				

**Directions for Creating:** Use the Table feature in your word processor to create the frame.

1. Determine how many items and traits for which you wish students to collect data.
2. Insert a table with the appropriate number of rows and columns.
3. Type the items as column headings and the traits as row headings. (If you have numerous items and a few traits you can put traits as column headings and items as row headings.)
4. Use the borders and shading features to “dress-up” the table as appropriate.

### Semantic Feature Analysis

Semantic Feature Analysis uses a grid to examine the similarities and differences among a group of items, people, events, concepts, etc. Students think about each item listed in the top row of the table and determine if the item has the feature listed in the first column of the table. They put a “Y” in the box if the feature is present, an “N” if the feature is not present, and an “S” if the feature is sometimes present. The following example asks teacher education students to compare the major approaches to teaching reading.

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## Major Approaches to Teaching Reading

**Directions:** Place a "Y" in the square if the approach in the top row has the feature listed in the left column most of the time. Put an "N" in the square if the approach in the top row does not usually have the feature. Put an "S" in the square if the approach has the feature some of the time.

	<i>Basal</i>	<i>Literature Based</i>	<i>Individualized</i>	<i>Language Experience</i>	<i>Guided Reading</i>
<i>Book Based</i>					
<i>Writing Based</i>					
<i>Self-selection of materials</i>					
<i>Individually paced</i>					
<i>Strong emphasis on decoding</i>					
<i>Primarily for beginning readers</i>					
<i>Primarily for remedial readers</i>					

**Directions for Creating:** Use the Table feature in your word processor to create the SFA Grid.

1. Determine how many items and features you wish students to use as points of comparison. Insert a table with the appropriate number of rows and columns.
2. Type the items for comparison in the top row.
3. Type the features in the first column.
4. Add borders and shading as appropriate.

## Concept Maps

Concept maps help students understand the relationships between main ideas and supporting details. They are arranged in a hierarchical manner with the most general concept first at the top of the map and the most specific details last at the bottom of the map. There are a variety of ways of using concept mapping in the classroom. One is to have students construct their own maps illustrating their understanding of the topic under study. Another approach is a cloze concept map where the instructor creates the map and then deletes certain elements from the map. The students complete the map by placing the missing elements in the correct spot. This technique is useful for assessment and for checking general understanding. When completed, the concept map serves as a graphic organizer with a pictorial representation of the content for a specified unit of study.

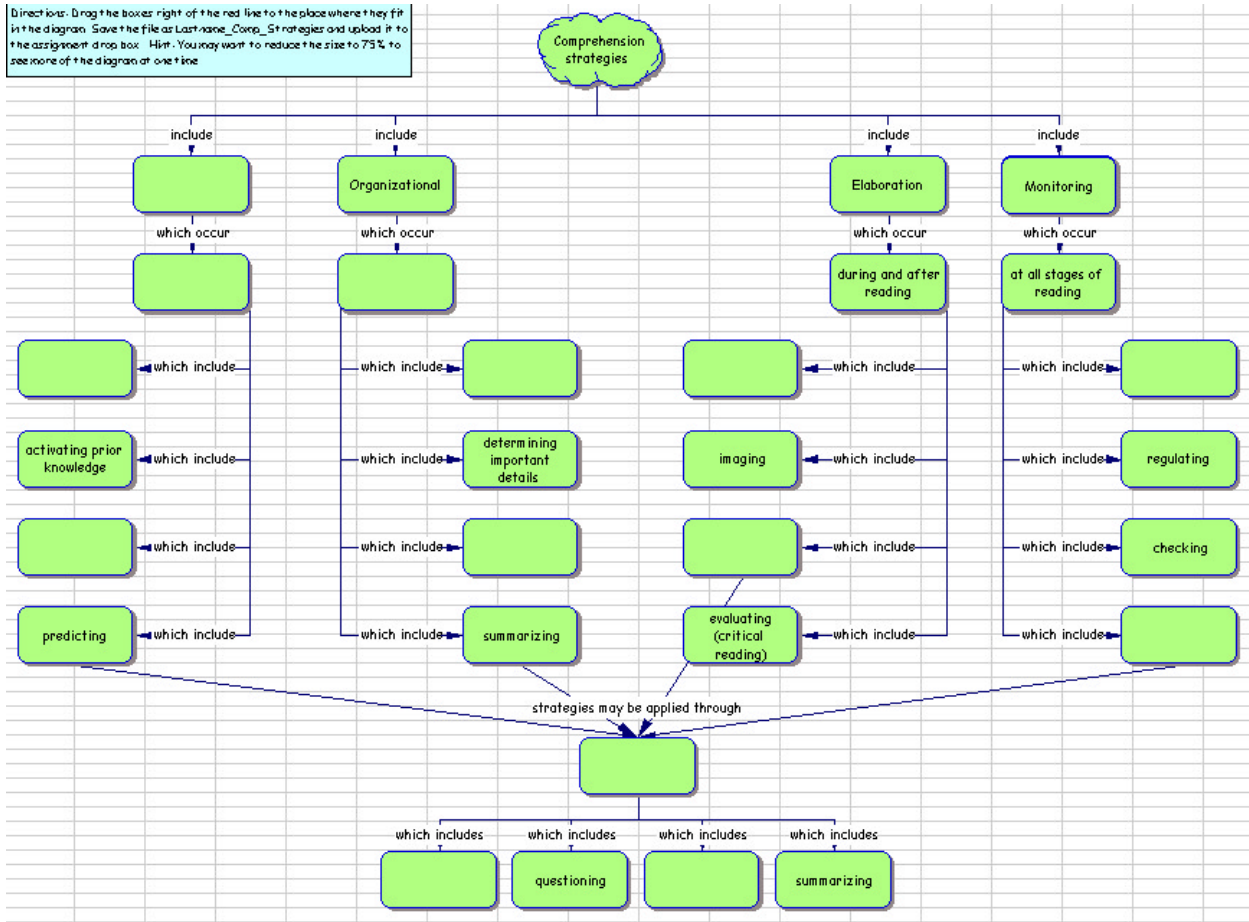
**Directions for creating a concept mapping exercise:**

1. Identify a unit of study that lends itself well to concept mapping and create the map. An outline of a chapter is a good way to start.

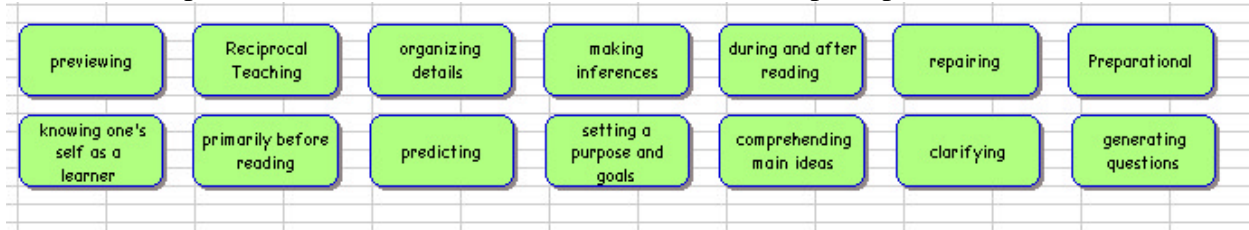
2. Develop the map by using an appropriate application.
  - a. One of the easiest ways to create a concept map is to use the *Inspiration* software package, a commercial application designed to create concept maps. (Available at <http://www.inspiration.com/>)
  - b. There are other applications (some free) that create maps. See, for example, Cmap available free for downloading at <http://cmap.ihmc.us/>.
  - c. Use the organizational chart feature in PowerPoint or Word to develop the map.
  - d. Use the drawing tools in PowerPoint or Word to develop the map.
3. Save your completed map; it becomes your answer key.
4. If using *Inspiration*, select the entire map and copy it. Open *Excel* and paste the map. *Excel* lets students drag and drop graphic items easily.
5. Determine which items you want deleted. Use the drawing tools to cover up the items on the map that you want deleted. One way is to use the rectangle tool to draw a box over the text in the item you wish to hide. Fill the box with the same color as the item on the map, and choose No Line to eliminate the black line around the box.
6. Once you have hidden all of the items you wish to hide, select all of the graphic elements and Group them. They now become one item and students won't realize that the answers are actually hidden on the map.
7. Return to *Inspiration*. Select an individual item that you want students to move on to the map. Copy it and paste it to the side or below the map on the *Excel* worksheet. Repeat until you have all the items you want students to place on the map moved to the *Excel* worksheet.
8. Add a text box and write directions for your students.
9. Save and post the file in a course management system.
10. Students download the file, open it, and complete the map by dragging and dropping the individual elements to their location on the map. They save the completed file and return it to you via the drop box. Use your answer key to check their work.

## Concept Map of Comprehension Strategies

Directions: Drag the boxes right of the red line to the place where they fit in the diagram. Save the file as Lastname\_Comp\_Strategies and upload it to the assignment drop box. Hint: You may want to reduce the size to 75% to see more of the diagram at one time.



Move the pieces below to the correct location on the concept map.



According to Vacca and Vacca (2005), graphic organizers such as those presented here “help students interact with and outline textually important information” (p. 399). This helps students comprehend and retain information from their textbooks, a goal of both on-line and face-to-face classes. Additional ideas using word processing, spreadsheet and presentation software, samples of assignments, and directions for creating the assignments are available at the author’s web site at: <http://homepage.mac.com/cecires/Workshops/index.html>.

### References

Gunning, T. (2005) *Creating literacy instruction for all children*, 5<sup>th</sup> ed. Boston: Allyn & Bacon.

Vacca, R. T. & Vacca, J. L. (2005) *Content area reading: Literacy and learning across the curriculum*, 8<sup>th</sup> ed. Boston: Allyn & Bacon.

### **Web resources for further reading and ideas**

Enchanted Learning Graphic Organizers

(<http://www.enchantedlearning.com/graphicorganizers/>)—Site contains numerous graphic organizers and an explanation of when to use them.

McKenzie, Jamie. Grids Organize Thinking for Decision-Making and Choices

(<http://www.fno.org/oct97/grids.html>) —Site has examples of frames with questions to answer based on data collected.

Semantic Feature Analysis

([http://www.litandlearn.lpb.org/strategies/strat\\_3fa.pdf](http://www.litandlearn.lpb.org/strategies/strat_3fa.pdf)) —Links to a PDF file that explains what Semantic Feature Analysis is and how to use it with students.

Concept Mapping

([http://www.litandlearn.lpb.org/strategies/strat\\_concept.pdf](http://www.litandlearn.lpb.org/strategies/strat_concept.pdf)) —Links to a PDF file that explains concept mapping and how to use it with students.

Graphic Organizers: Concept Map <http://www.graphic.org/concept.html>

Novak, Joseph. *The Theory Underlying Concept Maps and How To Construct Them* (<http://cmap.coginst.uwf.edu/info/>)—Article that discusses the theory behind concept mapping.

IHMC Cmap Tools (<http://cmap.ihmc.us/>)—Free concept mapping software that is available for downloading.