

Promoting Content Learning: Visualization Strategies to Improve Comprehension

*Based on “Reading, Writing, and Learning in ESL”
by S.F. Peregoy & O.F. Boyle and “The Reading Teacher”*



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Thursday, February 08, 2007

What We Will Learn Today...

- ❑ Recent research on reading comprehension and methods of student learning.
- ❑ Types of text and their effect on learning.
- ❑ Learning Strategies
 - Pre: Purpose & background knowledge
 - During: Monitoring comprehension
 - Post: Organizing & remembering
- ❑ Graphic Organizer examples

What Does the Research Say About Comprehension Learning?

- ❑ Student interact with text on many levels and use varying text elements to help them understand it better.
- ❑ Type of text require unique learning approaches
 - Expository (Efferent)
 - Narrative (Aesthetic)
- ❑ Text Structure
 - Attributive/enumerative: signals sequences (first, second, third)
 - Cohesive Ties: logical relationships between ideas and paragraphs (in addition, moreover, nonetheless)
 - Compare/contrast, problem/solution, cause/effect
 - Visual: headings/subheadings, charts, diagrams
- ❑ Common patterns in English Language

Exercise: Learning Approaches

For the most part, conclusions reached as a result of this year's evaluation mirror last year's. The program objectives of 70% retention and 75% in good standing were surpassed. Ninety eight percent of SSS students were retained, and 91% of those who were retained were in good standing. Moreover, the proportion of SSS students retained was ten percentage points greater than those in the EOP program. The difference in achieving the status of good standing was not different between the two groups this year. The reason appears to be that the proportion of EOP students in good standing increased this year, while the proportion SSS students who were in good standing remained the same as last year. A further indicator of the impact of the SSS program was that these students earned a higher GPA, on average than EOP students, even controlling for other factors.

Although a cause and effect relationship can't be definitively established between the SSS program and these findings, the formative evaluation provides further evidence of the program's benefit to students. We found at least a modest correlation between good standing status and GPA and participation in the program activities, especially advising and tutoring and, to a lesser extent, workshops. Students in general are falling short of fully complying with program requirements with respect to time devoted to these activities. Nevertheless, those students who have devoted more time to advising and tutoring were more likely to be in good standing and to have a higher GPA than those who devoted less time. Moreover, students rate these and other services provided by the SSS program very highly.

Factual vs. Abstract Thinking

- Many students excel at finding facts in text.
- “What, Who, Where” (Literal)
 - Easy!
 - Passive thinking
- “Why and How” (Inferential)
 - Difficult
 - Active/engaged thinking – synthesize and conceptualize
- How does this apply to the average tutor?
 - Schools we work with struggle with comprehension
 - At the secondary school level, students must comprehend 75% of the ideas and 90% of the vocabulary of a content area reading text to read it on an instructional level.
 - Reading Comprehension lessons

Exercise: Factual vs. Abstract Thinking

Daben and Barnk

Daben went to the bansk. Daben meets Barnk. Barnk and Daben are swash.
Daben did not joove Barnk. Daven and Barnk frop.

Daben and Barnk meens Bolio. Bolio had marv Barnk but not Daben.

Bolio erow Daben and Barnk to the wate. Daben jooved the wate. Nopo
Daben jooves Barnk.

Answer in Daben & Barnk language: (to the best that you can...)

- Where did Daben go?
- Does Daben joove Barnk?
- Where did Bolio erow Daben and Barnk?

Answer in English: (to the best that you can...)

- What are Daben and Barnk?
- What do you think a "wate" might be?
- What can you tell us about "joove"?

Model of Reading/Writing in Content Areas

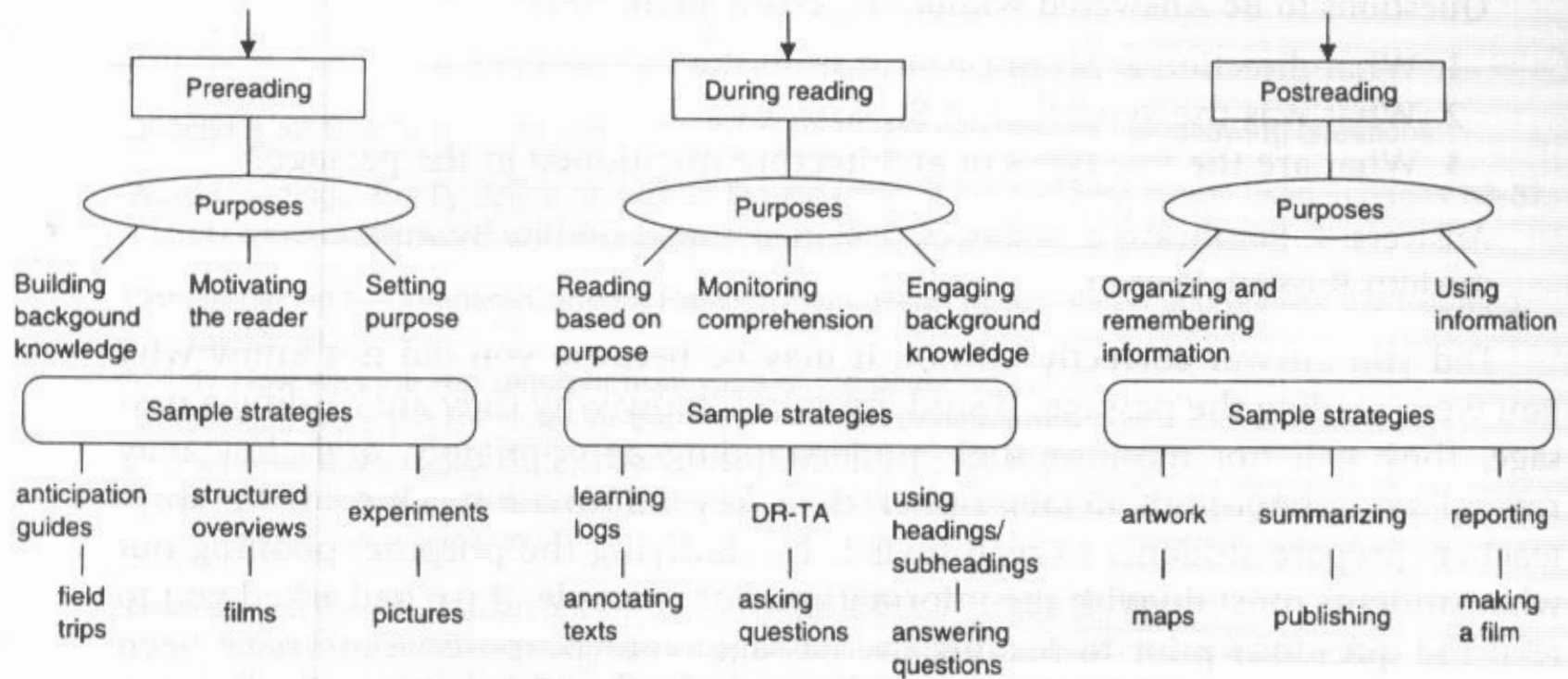
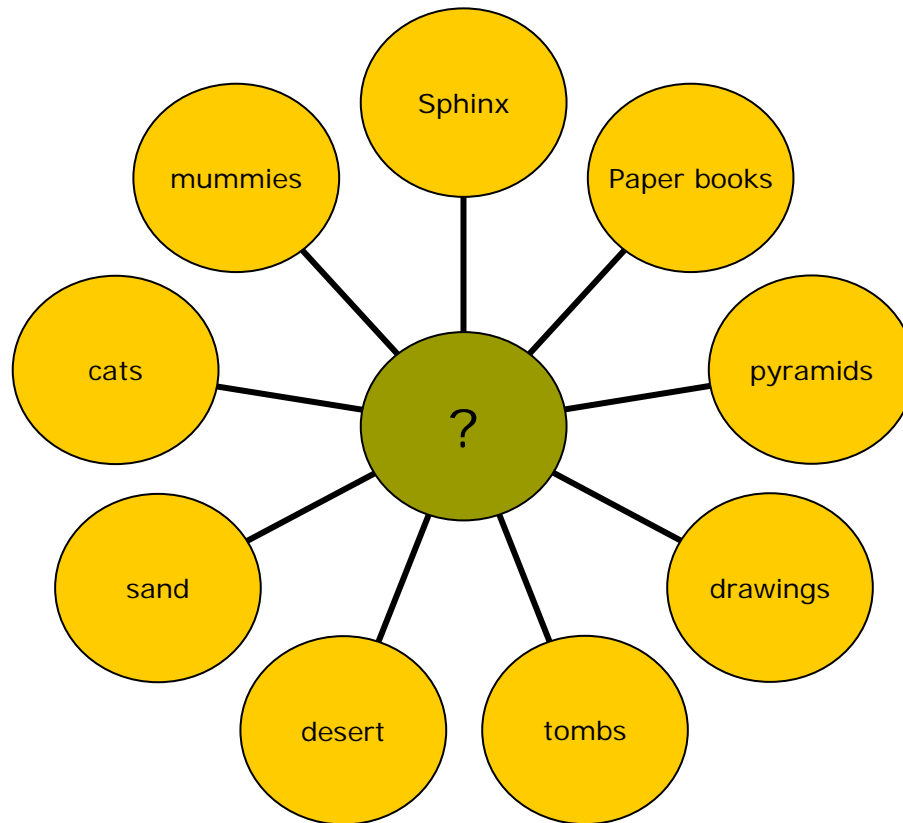


FIGURE 8.7 Model of Reading/Writing in Content Areas

Pre-Reading Strategies

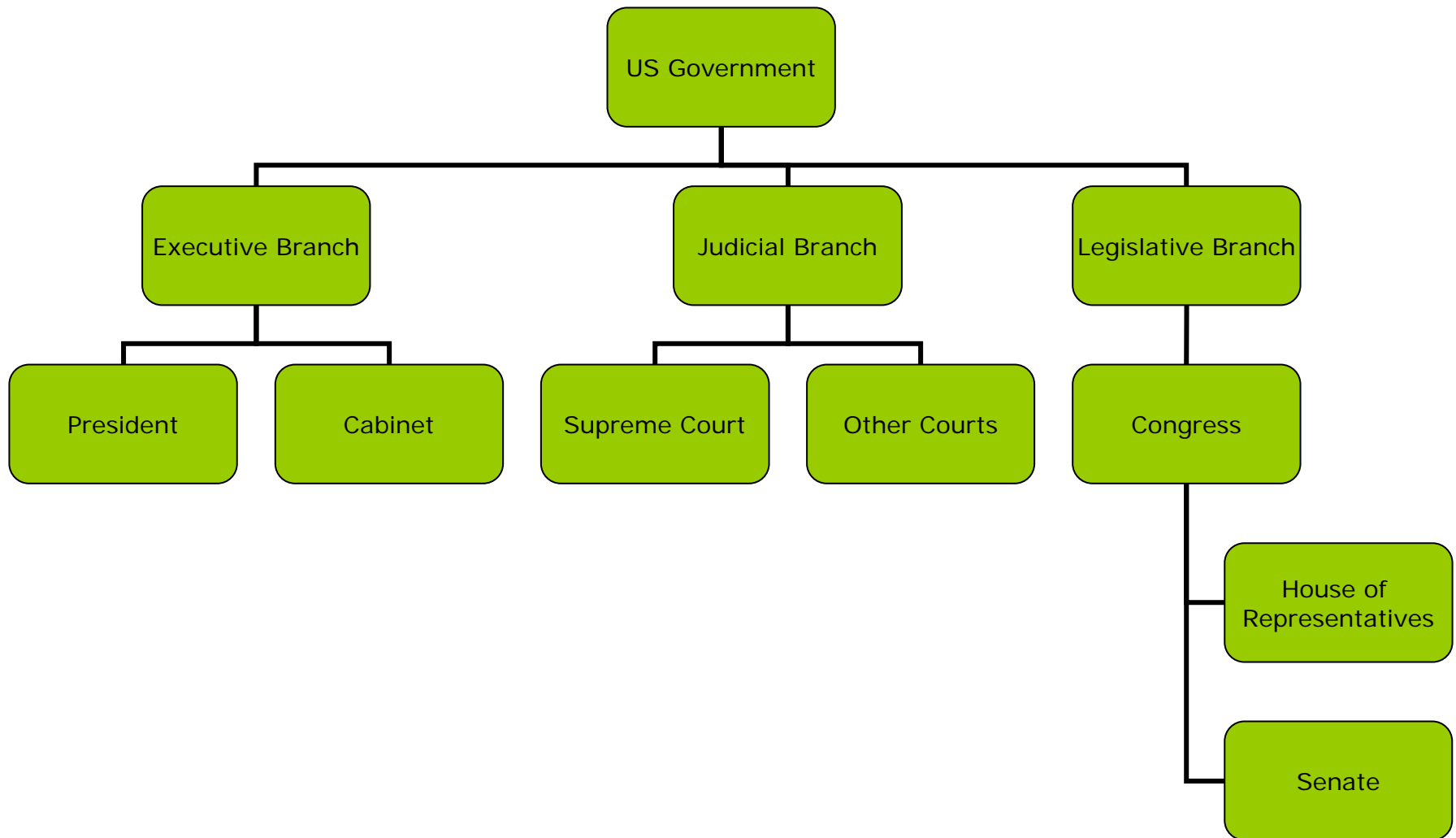
- ❑ Goal: Student understands reason for reading text and can make a personal connection.
- ❑ Setting a purpose
 - “Why read this? What do I need to know?”
- ❑ Building background knowledge
 - Simple pictures/drawings, computer, classroom resources, etc.
- ❑ Vocabulary development
 - Develop synonyms for central word, especially abstract ones
 - Helps students to figure out word meanings from context.
- ❑ Structure Overviews & Preview Guides
 - Help students to anticipate and predict elements of a text.
 - Structure Overviews: visual like an outline or map
 - Preview Guides: shows students how to read titles, headings, subheadings and summaries in a book to get overall “big picture”

Exercise: Vocabulary Cluster



Barbara's sequined robe was beautiful, covered with a thousand _____ jewels that shone brightly.

Exercise: Structured Overview of U.S. Government



During-Reading Strategies

- Goal: Student self-monitors as the read

- Headings/subheadings
 - Helps readers evaluate if they are 'successful' in reading
 - *"Three Environmental Dangers of Deforestation"*

- Directed Reading-Thinking Activity (DR-TA)
 - Making predictions while reading and determining whether these are correct

- Vocabulary Clusters
 - SAME AS PRE-READING EXERCISE

Exercise: Directed Reading-Thinking Activity (DR-TA)

Isabel and Luis went over to Tia Elisa's House.

"Abuela only wants memories for her birthday," Isabel told Tia Elisa.

"That's why I made her this bowl for her birthday," said Tia Elisa.

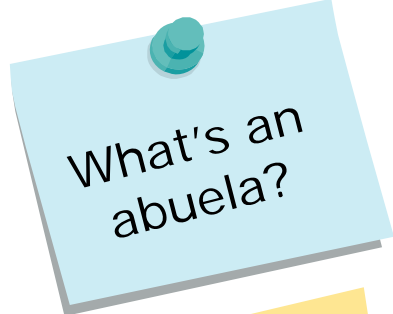
"The pattern on the side comes from our hometown. When we first came to America, Abuela said it was important that we not forget Mexico. I want to show her I still remember."

"That's a good memory," said Isabel.


"Your abuela is a good lady," said Tia Elisa, smiling.

Isabel and Luis went over to Tio Pedro's house.

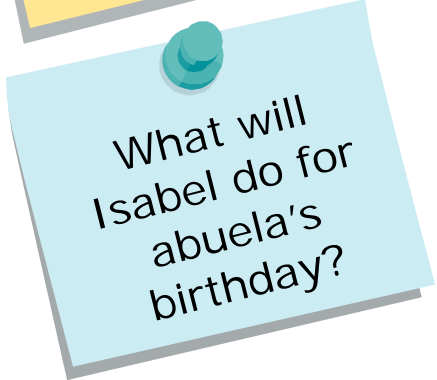
"Abuela said she doesn't want any presents for her birthday," Isabel told Tio Pedro. "She only wants memories."



What's an abuela?



Why is it important not to forget Mexico?



What will Isabel do for abuela's birthday?

Post-Reading Strategies

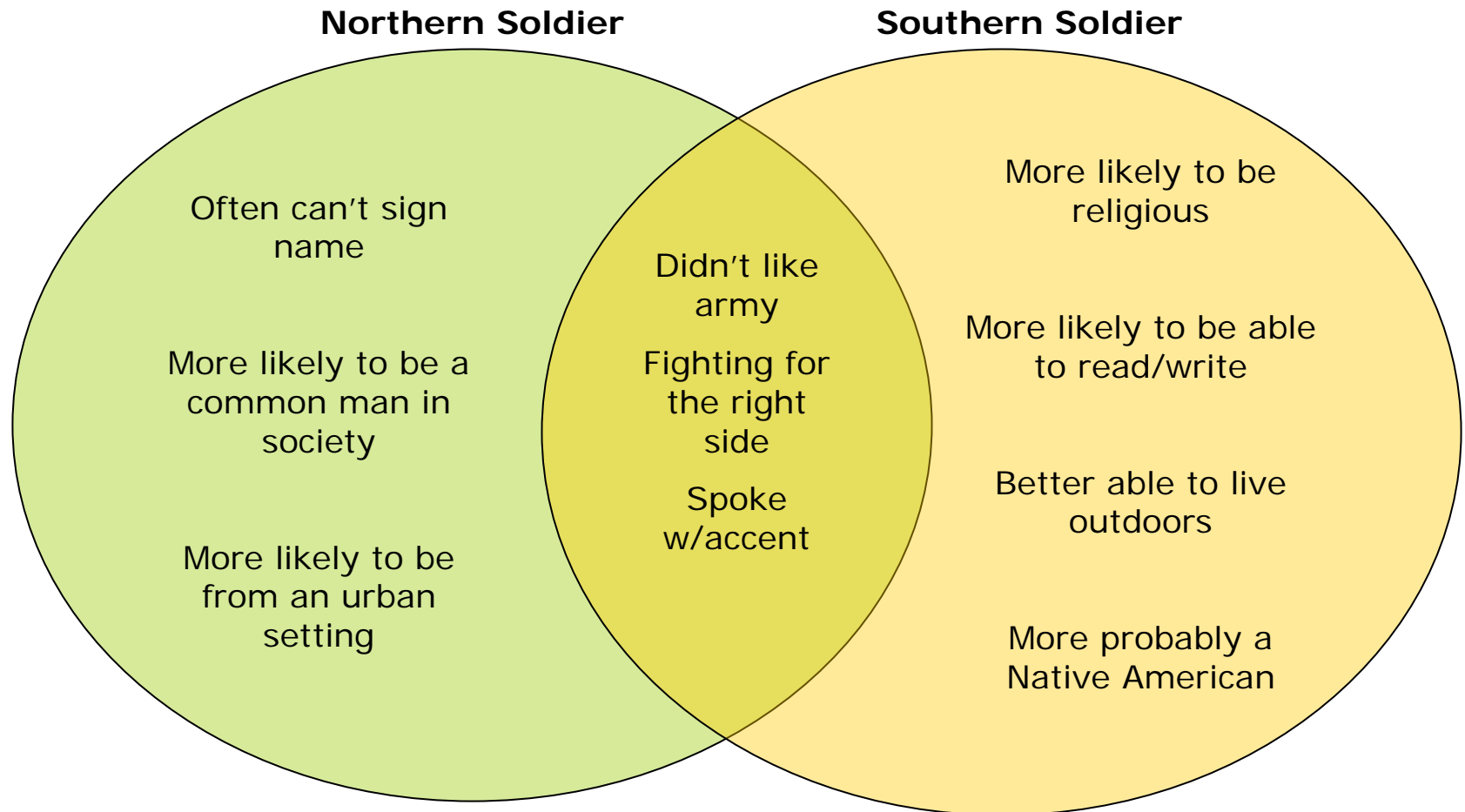
- ❑ Goal: Student able to effectively organize, synthesize, and remember information given in text.
- ❑ Compare & Contrast Chart (Semantic Feature Analysis)
 - Useful for analyzing abstract relationships between complex concepts.
 - Helps reinforce vocabulary and ideas.
- ❑ Venn Diagrams
 - Showing similarities and differences between novels, time periods, characters, etc.
- ❑ Story Maps & Story Map Skeletons
 - Facilitates
 - ❑ remembering
 - ❑ organization of key concepts and relationships
- ❑ Flow Maps
 - Shows cause & effects relationships

Exercise: Semantic Feature Analysis of Different Forms of Government

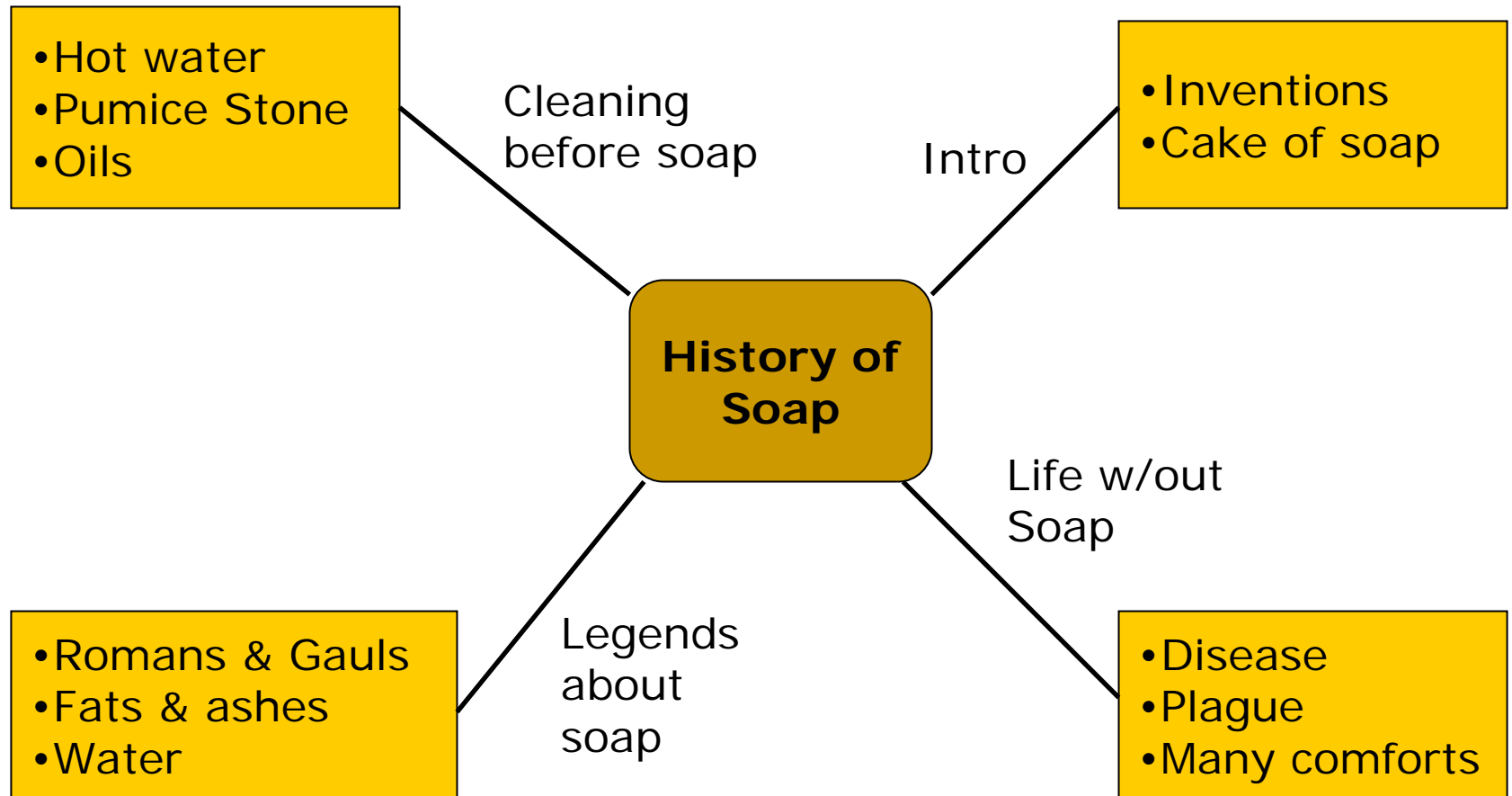
| Type of Government | Elections | Freedom | # of Leaders | Powers | Free to assemble | Free Speech | Other |
|--------------------|-----------|---------|--------------|--------|------------------|-------------|-------|
| Monarchy | | | | | | | |
| Democracy | | | | | | | |
| Dictatorship | | | | | | | |
| Oligarchy | | | | | | | |

Exercise: Venn Diagram

Comparing and Contrasting Civil War Soldiers



Exercise: Story Maps



Exercise: Story Map Skeletons

| Someone | Wants | But | So |
|---------|-------|-----|----|
| | | | |

Story Map Skeleton of "Three Little Pigs"

| Someone | Wants | But | So |
|-----------------|---|---|---|
| The wolf | Wants to eat the pigs | But they boil the wolf in the water | So the pigs live happily ever after |
| The pigs | Want strong houses to be safe from the wolf | But the wolf blows all but one house down | So the pigs boil him in the water and live happily ever after |

Practice Exercise

Life Cycle and Family

Gorillas are quiet, peaceful animals that live in close family groups. These groups consist of between 2 and 30 members.

Gorillas live for 35-40 years in the wild, and possibly up to 50 years in captivity. The male gorilla reaches maturity when he is between 10-15 years of age. The female gorilla is ready to mate when she is around 8-10 years old. She will probably have between three and six babies during her lifetime.

After a gestation period of 8-9 months, the newborn baby will weigh 3-5 pounds (1.4-2.3 kg). The baby is very weak and is held tightly to the mother's chest for about three months, until it is strong enough to cling on by itself. The mother will suckle the baby until it is about one year old.

Gorilla babies grow twice as fast as human babies. They can crawl and ride on their mother's back when they are about three months old. They hang on to the mother until they are about three or four years old.

Family life is important to gorillas. An older, dominant male, called a silverback, is the leader of the troop or family group. The family group usually has one adult male, some young males, several females and babies. The silverback is central to group life. He is a good father, protector of this troop, and a role model for the young male gorillas. He decides when the troop will wake eat, and sleep.

Facets of Comprehension

TABLE 1
Facets of comprehension

| | |
|---|---|
| Prior knowledge | Being sure it is present Activating |
| Literal comprehension | Restating information after reading |
| Interpretive comprehension | Working with ideas after reading (recognizing cause/effect, compare/contrast) |
| Critical thinking | Expressing/supporting opinions after reading, evaluating positions, analyzing relevance and credibility |
| Story parts | Recognizing and analyzing literary elements (setting, character, plot) |
| Word meaning | Using strategies to determine the meaning of new words found while reading |
| Organizing information | Recognizing how information is organized (sequence, cause/effect, problem/solution, main idea/supporting detail, compare/contrast, description) |
| Visualization | Creating mental images while reading |
| Analyzing questions | Identifying types of questions and answers related to readings |
| Generating questions | Creating questions of authors, texts, others related to readings |
| Summarizing | Recognizing, organizing, and expressing the most important ideas in a given selection |
| Applies reading strategies in all areas | Uses comprehension strategies to understand any written material (e.g., science, social studies, math) |
| Recognizes and remedies comprehension breakdowns | Recognizes when text no longer makes sense and applies an appropriate, effective strategy to construct meaning |

Final Thoughts...

- ❑ Be patient and persistent
 - Students often will not grasp or use concepts immediately or consistently.
 - Up to you, the tutor, to help “guide” the students

- ❑ Be selective
 - Most effective when used sparingly and appropriately
 - Can be used in at appropriate point in lesson—middle of reading a story with student or at the end.

- ❑ **BE FLEXIBLE!!!**
 - Students are human beings—not robots—and can often be very unpredictable.
 - Just go with the flow!!

Other Tools...

- Vocabulary Development
 - <http://www.visualthesaurus.com/>

- Sequencing
 - Circle Plots
 - <http://readwritethink.org/materials/circle-plot/>

- Creative Writing
 - Comic Strips
 - <http://www.readwritethink.org/materials/comic/index.html>

- Other Visual Maps
 - ReadWriteThink.org
 - http://www.readwritethink.org/student_mat/index.asp
 - Other Examples
 - <http://www.mapthemind.com/thinkingmaps/thinkingmaps.html>

The End

□ Summary

- Emphasize conceptual thinking vs. factual reiteration (“why & how” vs. “what and when”)
- “Guide” your student’s learning
- Use Different Learning Strategies
 - Pre-illustrations/pictures, computer, other resources
 - During-heading/subheading questions, DR-TA, vocabulary clusters
 - Post-Compare & Contrast charts, Venn Diagrams, Story Maps/Skeletons

□ Resources

- “Reading, Writing, and Learning in ESL”, by S.F. Peregoy & O.F. Boyle
- “The Reading Teacher”, Vol. 60, No. 5, February 2007

□ Any Questions?