Chapter 7
Processing Information from Lectures
Learning Outcomes

When you complete Chapter 7 Processing Information from Textbooks you are expected not only to understand the material presented but also you should be able to

• *Explain* how to survey a textbook assignment.
• *Demonstrate* how to use the Question in the Margin system for reading textbooks: survey, focus, read, label with a question, recite, reflect, review, summarize.
• *Explain* how to use the Question in the Margin system to someone who has never used it.
• *Analyze* the Question in the Margin system, and *explain* how the memory principles are used to complete the system.
• *Explain* the learning process modeled in this chapter.
Question in the Margin

• Processing information from textbooks is not very different from processing information from lectures.

• Actually, they differ only in the gathering or input stage.
Gathering Information from Textbooks

Using Question in the Margin

Step One: **Survey** before you Read
Survey

Title
Major Headings
Bold Print
Charts
Pictures
Read the Summary
Examine Review Questions
Step 2: After *Surveying*, begin with first section

• Try to determine **what** the **section** is **about** and what you might find when you read that section. This can be done by **turning the major heading into a question**.

• **Focus**
Step 3: Read

• The last step in the gathering process is to read—but not the whole section—(remember what we know about short-term memory)?

• Read **ONE** paragraph at a time.

• *Don’t mark or underline anything at this time.*
You are now ready to

• Process this information into Long-term Memory
Process
Step 1: LABEL

• After you have read a paragraph, determine what the main idea of the paragraph is--just as you did with your lecture notes.

• Write a question in the margin that identifies the point of the paragraph--what the test question might be.

• Underline the answer in as few words as possible.
This is the Question step

• Note: almost the same thing you did with lecture notes.

(With BOOKS, you write the questions first, then underline answer).

• Same Principle---Play Jeopardy!
Labeling your textbooks

• Labeling process works best in short sessions.
• Read and label paragraphs at times during the day that you normally waste.
• When you get to the time would have read the chapter, it will already be labeled and you are ready to review.
Step 2: Process

**Recite**- cover the text and ask yourself the question you wrote in the margin. Say the answer out loud in your own words.

_This is the same as with your lecture notes._

Understanding what you read is **not** the same as reciting it.
Step 3: Process

Reflect

• Think about what you have just read. Make connections with things you already know. Make it Personal. Visualize it and begin to organize it.

(This is the same thing you do with lecture notes.)
Step 3: Process
Question in the Margin System
Reflect

• Think about what you read- Some Questions to Ask
  – Can you think of examples from your own experience to reinforce the main point?
  – Can you make it concrete by making an analogy (this is like. . .)?
  – Can you visualize the information in some way?
  – Did you agree with the information?
  – How could you use that information?
• Write comments, illustrations, and questions in the margins.
Step 1: Activate Question in the Margin System

Review

• When you finish the chapter.
• Go back over what you recited and reflected
• Review the material before the next class
• Review it again within a week
• This should fix it in long term memory
Step 2: Activate Question in the Margin System

Summarize

• One way to summarize is to take the questions and answers from the text and put them in your notes (using QMS format and adding things you discovered when you reflected).
• Or as with lecture notes you can
• Summarize by making a chart, flash cards, map, timeline, PowerPoint presentation, etc.

• We have learned that summarizing is important in converting textbook facts into personal knowledge.

• Where does the summary for textbooks go?
You can both **Review** and **Summarize** using the following strategies

* Writing Summary Sheets
* Making Flashcards
* Reciting again
* Developing Mnemonics
* Making Practice Tests
* Mapping
* Teaching it to Someone
* Making PowerPoint Presentations
Mapping
Basic Kinds of Maps

- **SPIDER CONCEPT MAP**
- The "spider" concept map is organized by placing the central theme or unifying factor in the center of the map. Outwardly radiating sub-themes surround the center of the map.
• HIERARCHY CONCEPT MAP

• The hierarchy concept map presents information in a descending order of importance. The most important information is placed on the top. Distinguishing factors determine the placement of the information.
• FLOWCHART CONCEPT MAP

• The flowchart concept map organizes information in a linear format.
Basic Kinds of Maps

• SYSTEMS CONCEPT MAP
• The systems concept map organizes information in a format which is similar to a flowchart with the addition of 'INPUTS' and 'OUTPUTS'. 

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Modeling the Learning Process

4 Basic Functions the Brain Uses for Learning

- Getting Information
- Making Meaning of Information
- Creating New Ideas
- Acting on Those Ideas
Learner *Begins* as *Receiver* of Knowledge
Gathering
Information Enters through Senses

Can you remember four things that influence this gathering?

- Interest
- Intent
- Basic Background (prior knowledge)
- Understanding
Gathering takes place in the sensory cortex
Reading Textbooks
Gathering

You discovered:
• A system for reading textbook assignments
• You surveyed material you were responsible for and read it paragraph by paragraph
Analyzing to Make Meaning

REFLECTION

• Try to make personal
• Try to determine connection to past experiences
• Try to discover relevance and usefulness
• Try to discover what it's like that we already know.
Analyzing takes place in the Back Integrative cortex
Reading Textbooks
Analyzing

• You analyzed your notes
• Analyzed each paragraph
• Wrote questions in the margin
• Looked for connections
Creating
Convert comprehension to

• Ideas
• Hypothesis
• Plans
Reading Textbooks Creating

- You reflected and reviewed your marked text and questions
- Predicted possible test questions involving higher level thinking skills.
- Looked for connections with notes you had taken in class.
Creating Takes Place in the front integrative cortex
Acting
Testing Ideas

• Writing
• Speaking
• Drawing
• Can you think of other ways?
Acting Takes Place in the Motor Cortex
Reading Textbooks
Acting

You developed:

• Summary sheets
• Maps
• Power Points
• Practice Tests
Learner becomes *Producer* of Knowledge