Levels of Learning

- AS U ARE.
- Analysis
- Synthesis
- Understanding
- Application
- Remembering
- Evaluation

Key questions to ask in using any of the six learning mastery strategies, AS U ARE.

- Is my goal to know the subject, recognize it or explain it, see the relationships? (Declarative Knowledge)
- Is my goal to know how to do something, perform the steps? (Procedural Knowledge)
Ten Principles of Learning and Remembering (Deep Processing)

- 1. The Principle of Motivated Interest
- 2. The Principle of Selectivity
- 3. The Principle of Intention to Remember
- 4. The Principle of the Basic Background
- 5. The Principle of Meaningful Organization
- 6. The Principle of Recitation
- 7. The Principle of Consolidation
- 8. The Principle of Distributed Practice
- 9. The Principle of Imagery: Mental Visualization
- 10. The Principle of Association
Ten Principles of Learning and Remembering (Deep Processing)

• I AM SAD MR. BIC is a helpful mnemonic for remembering the 10 Principles of Learning.
Ten Principles of Learning and Remembering (Deep Processing)

• 1. The Principle of Motivated Interest
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• 9. The Principle of Imagery: Mental Visualization
• 10. The Principle of Association
Study Attack Systems

- Cornell System  (Pauk, Walter., 1974)
- Record, Reduce, Recite, Review, Reflect
- OARWET (Space & Berg, 1968)
- Overview, Ask, Read, Write, Evaluate, Test
- OK4R (Pauk, Walter, 1962)
- Overview, Key Ideas, Read, Recall, Reflect, Review
- OK5R – Overview, Key Ideas, Read, Record, Recite, Review, Reflect
- PANORAMA (Space & Berg) 1973)
- Purpose, Adaptability, Need (to question), Overview, Read, Annotate, Memorize, Assess
- PQRST (Space & berg, 1966)– Preview, Question, Read, Summarize, Test
- REAP (Szabo, Robert, 1976)– Read, Encode, Annotate, Ponder
- SQ3R (Robinson, Francis, 1946)– Survey, Question, Read, Recite, Review
Reading Comprehension

• Reading comprehension is influenced by 1) the 10 Principles of Learning and the 7 Problem Solving Modalities, 2) Visual Perception, 3) Vocabulary and 4) use of an effective Learning Method.
Francis P. Robinson, 1946, SQ3R Developer, maintained that curiosity through questioning and answering was essential to good reading comprehension. His system, the SQ3R Reading Comprehension system, has 5 steps. Using these steps consistently during reading activities will increase comprehension and retention.
SURVEY

- Survey - Use your visual skills prior to reading. Look at Charts, Pictures and/or Tables, changes in lettering styles and colors, Chapter Heading and Subheadings, Highlighted words or text, and so on. Read the preface and chapter summary prior to reading the chapter.
Question

- Question - Ask questions using the visual and non-visual material gathered while Surveying. The clearness of your questions will influence your comprehension and later recall.
Read

• Read - Read to answer the questions you developed in the Questioning step. Reading with a purpose is essential to recall and comprehension. Reading mainly influences short term memory.
Recite

- Recite- Recite by saying aloud the answers to the questions you developed prior to reading. Recite by illustrating, writing answers, citing real life examples that illustrate the reading material.
Review

- Review - Practice Reciting at least 3 times a week. Practice for 30 minutes at least each time.
Cornell Note Taking System
Walter Pauk, 1974

- Prepare Paper - Divide your paper by drawing a vertical line that separates the page into a 2.5 vs. 6.0" section.
Cornell Note Taking System

**RECORD**

- Record - Write your notes in the 6.0" Section during reading and lectures.
Cornell Note Taking System

REDUCE

- Reduce - Write key words/key phrases in the 2.5" section after the notes have been edited and understood.
Cornell Note Taking System
RECITE

• Recite - Cover the 6.0" section and use the key words/key phrases in the 2.5" section to answer questions you develop. Use a variety of test taking words as you develop and answer questions. Words like compare, contrast, illustrate, define, why, what, where, when, how and so on. Be creative.
Cornell Note Taking System

REVIEW

- Review - Recite at least three times a week. Reciting creates long term recall or memory. Be actively involved during recitation periods. Group discussion is very helpful, if group members are serious about learning.
Cornell Note Taking System

REFLECT

• Reflect - Reflect by connecting old and new material. Look for real life examples. Think about what you have learned often and try to apply your learning.
Remembering Through Mnemonics

• 1. Association Mnemonics
• 2. Make a Word Mnemonic
• 3. Make a Sentence Mnemonic
Forgetting and Remembering
Forgetting: the Relentless Foe

1. The greatest amount of forgetting occurs directly after finishing the learning task.
• 2. The greatest amount of forgetting occurs rapidly, during the first day.
• 3. Forgetting is still sizable during the first fourteen days.
Forgetting and Remembering

Forgetting: the Relentless Foe

• 4. Forgetting slows down after two weeks, but again there is not much left to forget.
• 5. Remembering what you have heard is usually more difficult than remembering what you have read.
• 6. Forgetting is sometimes incorrectly labeled. Normally the cases are 1) Pseudo-Forgetting - You never had it forgetting and 2) Mental Blur forgetting.
Causes of Forgetting

• Retroactive Interference - In this process, new learning interferes with the recall of old learning.
• Proactive Interference - This kind of interference occurs when old knowledge interferes with the recall of new knowledge.
• Interactive interference - In interactive interference, my oldest knowledge and my newest knowledge would tend to make one lose the intermediate knowledge
Causes of Forgetting

- Interactive interference - In interactive interference, my oldest knowledge and my newest knowledge would tend to make me lose the intermediate knowledge.
- Reactive Interference - This kind of interference arises from negative feelings or attitudes that we may have toward a disliked subject

» Developed by Jesse B. Harris Jr., Ph.D.