

LONG TERM MEMORY STRATEGIES

April 6, 2005

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Goals for Today

to learn basic long term memory principles

to individually analyze current study/memory habits

to choose strategies that are appealing and begin to use them

Basic Long Term Memory Strategies

Three memory stages: sensory, working, long term

Complete individual survey

Organizing the Study Session

Planning the Session – Know your strengths and weaknesses

Distributed Practice

Sample distributed practice plan

Organizing Material

Chunking

Mind maps, diagrams, flow charts

Flash cards

Making Connections

Relating material to self

Relating concepts to each other

Embracing Variety

Use diverse strategies

Choose those that fit you best

Regular Review

Recitation

Group Review

Self-testing

Three Stages of Memory

Sensory Memory

- Paying attention
- Skimming
- Looking for words that sum up information
- Focusing on ideas with as many senses as possible

Working Memory

- Organizing new and old information into meaningful chunks
- Relating material to self
- Using mnemonics
- Grouping similar ideas
- Linking across ideas
- Using images, colors, spatial arrangement
- Paraphrasing
- Summarizing
- Creating concept maps

Long Term Memory

- Using a distributed review plan
- Self-testing regularly
- Applying information to problems and situations
- Overlearning

Think of how you study. Make a list of all of the things you normally do when you study.

Next to each item, write S (Sensory), W (Working) or L (Long-term) to indicate the process for each item.

___1.

___2.

___3.

___4.

___5.

___6.

___7.

___8.

___9.

___10.

PRINCIPLES FOR LONG TERM MEMORY SUCCESS

- 1. Organize your study/review plan.**
- 2. Determine stronger and weaker topics.**
- 3. Distribute your review. (See sample distributed practice plan.)**
- 4. Organize material into 5 – 7 chunks.**
- 5. Use a variety of techniques and alternate them.**
- 6. Relate the material to yourself and your own experience.**
- 7. Relate concepts to each other across topic areas.**
- 8. Have group review sessions that are pre-planned and organized.**
- 9. Test yourself regularly.**
- 10. RECITE - Recitation is the single most effective way to increase long term memory.**

Sample Distributed Practice Plan

One week, five topic areas, four hours per day for six days

24 hours total

Topics, A,B,C = 5 hours each for the week

Topics D, E = 4.5 hours each for the week

| Day | Hour 1 | Hour 2 | Hour 3 | Hour 4 |
|-----|-----------|-----------|-----------|-----------|
| M | Topic A | Topic B | Topic A | Topic B |
| T | Topic A/B | Topic C | Topic D | Topic C |
| W | Topic C/D | Topic E | Topic A/B | Topic E |
| Th | Topic A/D | Topic B/E | Topic C | Topic A |
| F | Topic E | Topic D | Topic B | Topic C |
| Sa | Topic D | Topic E | Topic A/D | Topic B/C |
| Su | Rest | Rest | Rest | Rest |

MY DISTRIBUTED REVIEW PLAN

Topic A _____

Topic B _____

Topic C _____

Topic D _____

Topic E _____

| Day | Hour 1 | Hour 2 | Hour 3 | Hour 4 |
|------------|---------------|---------------|---------------|---------------|
| M | | | | |
| T | | | | |
| W | | | | |
| Th | | | | |
| F | | | | |
| Sa | | | | |
| Su | | | | |

MY MEMORY CHECKLIST

___ My study environment is free from distractions and meets the criteria for a good place to study. (See handout)

___ I understand the three stages of memory (sensory, working, long-term) and use effective strategies in each area.

___ I know about advanced organizers and have prepared them for my review.

___ I realize that peak memory develops best in short, distributed sessions over time.

___ I have organized my review so that I touch on different content areas over time and return to them for spot checks.

___ My preparation plan includes time for returning to previously reviewed material.

___ I regularly evaluate my learning in different content areas.

___ I make adjustments in my schedule when I see that changes need to be made.

___ I use a variety of review strategies and don't rely only on reading and rereading material.

___ I use active learning strategies (note taking, note cards, discussing, visual clues) in my review sessions.

___ I recognize the importance of reciting out loud to remember information long term and incorporate recitation in all of my review sessions.

___ I provide for rest and reward within my review schedule to reduce stress and distractibility and stay energized and alert.

___ I understand and practice good nutrition and sleep behaviors.

___ I incorporate physical activity into my life and preparation plan.

___ I keep a positive attitude and use positive self-talk (*"I am good at this. I can remember and do well."*)

CONCEPT MAPS

How do you study? Do you read a chapter over the night before a test, hoping you will remember all the information the next day? Do you try to memorize notes? If so, you are learning by rote memorization. When you learn by rote memorization, information is stored in your short-term memory.

Learning information so that you can remember it longer and use it to solve problems involves getting that information into your long-term memory. Making a concept map helps you find relationships between ideas, and transfers information from short-term memory to long-term memory.

Making a concept map is based on how you process or remember information. It helps you figure out the main ideas in a piece of reading material. A concept map can also help you understand that ideas have meanings because they are connected to other ideas. In a concept map, words that are concepts go in circles or boxes. Linkage words are placed on a line that connects concept words together.

If you have made the map, your long-term memory knows the parts of that map, and reviewing the map makes studying easier.

To make a concept map:

- identify the main concepts by writing them in a list.
- then put the concepts in order from general to most specific.
- if the main idea can be broken down into two or more equal concepts, place them on the same line.
- continue to do this until all of the concepts have been laid out.
- use lines to connect the concepts.
- write a statement on the line that shows why the concepts are connected.

Do not expect your map to be exactly like anyone else's map. Everyone thinks a little differently and will see different relationships between certain concepts. The map does not have to be symmetrical, and errors occur only if links between concepts are incorrect. What's important is that you can explain why you organized your map the way you did, and that the connecting words show meaning between the concepts.

A concept map can also be a visual representation of the relationships among objects.

1. Make a list of the major components of your system.
2. Under each major component, list the specific pieces which make up that part of the system.
3. If some of these pieces have sub components, make a list under the appropriate word.
4. You can now map out your pieces. If available, use computer software to type and place the words in a logical pattern. Otherwise, write each word on a square of paper or a sticky note and create your logical pattern. Then draw your map.
5. Draw links that show association between the components and sub components of your system. Write words on the lines that explain how the parts of the system interrelate.

CONCEPT MAP RUBRIC

| | 1 | 3 | 5 |
|--------------------------------|---|---|---|
| Relationships between concepts | Unclear relationship between concepts. Components and sub components unorganized. | Relationship between concepts evident. Components and sub components present. | Clear relationship between concepts. Hierarchical organization from components to sub components. |
| Cross-linkages | Linkages do not make sense and are not explained. Information is inaccurate. | Logical linkages. Explanation of links unclear. Information is accurate. | Logical linkages. Clear and thorough explanation of links. Information is clear, accurate, and precise. |
| Presentation | Presentation is not orderly. | Presentation is orderly and effective. | Presentation is orderly and visually appealing. Demonstrates effective use of the elements of graphic design. |