



BLACK HAWK COLLEGE

IMPROVING YOUR MEMORY

Much of your ability to remember comes down to skill. By learning techniques that help you concentrate and organize information, you can improve your ability to remember. But it will take time and effort on your part to learn and master these skills.

Memory Theories and Processes

1. Attention and Selection
Choose what information you will remember
2. Encoding
Choose how you are going to remember the information
[acoustic, visual, semantic]
3. Storage
Choose how you will store the information -- short term and long term memory
4. Retrieval
Practice recalling/remembering the information you have learned
5. Forgetting
Review the information to avoid memory decay

Memory Techniques and Strategies

1. Putting it all together. Organizing and ordering information can significantly improve memory. By organizing and adding meaning to the material prior to learning it, you can facilitate both storage and retrieval. Some ways of doing this include using outlines, idea webs, learning things in a particular order, or making intentional associations between ideas.
2. The funnel approach means learning general concepts before moving on to specific details. Examples include previewing a chapter before reading it, studying from an outline, matrix, or concept map.
3. Organizing through meaning and association is done by making intentional associations between what we are learning and the environment we are in – making mental paths. This can be done by relating the information to yourself (how the material relates to you or your life) or by grouping the information into similar concepts or related ideas.
4. Vivid associations assist you in both storage and retrieval of new information by intentionally pairing it with something familiar. When learning something new and unfamiliar try pairing it with something you know very well, such as images, puns, and music, whatever.
5. Active learning – using more than one of the senses when learning new information.

6. Visual Memory is encoding something visually, associating concepts with visual images. This can include using diagrams, tables, outlines, charts, etc. It can be as simple as writing things out.
7. Talk it out. When trying to memorize something try reciting the information aloud either verbatim or in your own words.
8. Visualize yourself teaching the material is a great way to master the information.
9. Use mnemonic techniques and other memory tricks.

Mnemonic Techniques and Memory “Tricks”

Mnemonic techniques are more specific memory aids. Although it can be easiest to remember those things that you understand well, sometimes you must rely on rote memory. The following techniques can be used to facilitate such memorization.

1. **ACRONYMS.** You form acronyms by using each first letter from a group of words to form a new word. This is particularly useful when remembering words in a specified order. Acronyms are very common in ordinary language and in many fields. Some examples of common acronyms include NBA (National Basketball Associations), SCUBA (Self Contained Underwater Breathing Apparatus), and LASER (Light Amplification by Stimulated Emission of Radiation). Suppose that you have to memorize the names of four kinds of fossils for your geology class: 1) actual remains, 2) Petrified, 3) Imprint, and 4) Molds or casts. Take the first letter of each item you are trying to remember: APIM. Then, arrange the letters so that the acronym resembles a word you are familiar with: PAIM or IMAP.

Although acronyms can be very useful memory aids, they do have some disadvantages. First, they are useful for rote memory, but do not aid comprehension. Be sure to differentiate between comprehension and memory, keeping in mind that understanding is often the best way to remember. Some people assume that if they can remember something, that they must "know" it; but memorization does not necessarily imply understanding. A second problem with acronyms is that they can be difficult to form; not all lists of words will lend themselves equally well to this technique. Finally, acronyms, like everything else, can be forgotten if not committed to memory.

YOUR
EXAMPLE _____

2. **SENTENCES/ACROSTICS.** Like acronyms, you use the first letter of each word you are trying to remember. Instead of making a new word, though, you use the letters to make a sentence. Here are some examples:

- My Dear Aunt Sally (mathematical order of operations: Multiply and Divide before you Add and Subtract)
- King Phil Came Over for the Genes Special (Kingdom, Phylum, Class, Order, Genus, Species)

Like acronyms, acrostics can be very simple to remember and are particularly helpful when you need to remember a list in a specific order. One advantage over acronyms is that they are less limiting. If your words don't form easy-to-remember acronyms, using acrostics may be preferable. On the other hand, they can take more thought to create and require remembering a whole new sentence rather than just one word (as is the case with acronyms). Otherwise, they present the same problem as acronyms in that they aid memorization but not comprehension.

YOUR

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3. RHYMES & SONGS. Rhythm, repetition, melody, and rhyme can all aid memory. You can use the same techniques to better remember information from courses. For example, even the simple addition of familiar rhythm and melody can help. Do you remember learning the alphabet? Many children learn the letters of the alphabet to the tune of "Twinkle, Twinkle, Little Star." In fact, a student demonstrated how she memorized the quadratic formula (notorious among algebra students for being long and difficult to remember) by singing it to a familiar tune!

Using these techniques can be fun, particularly for people who like to create. Rhymes and songs draw on your auditory memory and may be particularly useful for those who can learn tunes, songs, or poems easily. Like the other techniques in this section, however, they emphasize rote memory, not understanding. Also, when devising rhymes and songs, don't spend too much time creating them. Use these techniques judiciously and don't let them interfere with your studying.

YOUR

EXAMPLE _____

4. METHOD OF LOCI. This technique was used by ancient orators to remember speeches, and it combines the use of organization, visual memory, and association. Before using the technique, you must identify a common path that you walk. This can be a walk around your house, your block, whatever is familiar. What is essential is that you have a vivid visual memory of the path and objects along it. Once you have determined your path, imagine yourself walking along it, and identify specific landmarks that you will pass. Once you have determined your path and visualized the landmarks, you are ready to use the path to remember your material. This is done by mentally associating each piece of information that you need to remember with one of these landmarks. For example, if you are trying to remember a list of mnemonics, you might remember the first--acronyms--by picturing SCUBA gear in your room (SCUBA is an acronym). You do not have to limit this to a path. You can use the same type of technique with just about any visual image that you can divide into specific sections. The most important thing is that you use something with which you are very familiar.

YOUR

EXAMPLE _____

5. **CHUNKING.** This is a technique generally used when remembering numbers, although the idea can be used for remembering other things as well. It is based on the idea that short-term memory is limited in the number of things that can be contained. A common rule is that a person can remember 7 (plus or minus 2) "items" in short-term memory. In other words, people can remember between 5 and 9 things at one time. You may notice that local telephone numbers have 7 digits. This is convenient because it is the average amount of numbers that a person can keep in his or her mind at one time.

When you use "chunking" to remember, you decrease the number of items you are holding in memory by increasing the size of each item. In remembering the number string 64831996, you could try to remember each number individually, or you could try thinking about the string as 64 83 19 96 (creating "chunks" of numbers). This breaks the group into a smaller number of "chunks." Instead of remembering 8 individual numbers, you are remembering four larger numbers. This is particularly helpful when you form "chunks" that are meaningful or familiar to you (in this case, the last four numbers in the series are "1996," which can easily be remembered as one chunk of information).

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6. **PRACTICE MAKES PERFECT** (or closer to it anyway): Okay, it may not be a mnemonic, but repeating is still a great memory aid. Remember the children's game "I'm going on a picnic and I'm bringing...." As each new object is added, the old objects are repeated. People can often remember a large number of objects this way. When remembering a list of things, you might try a similar concept. Once you are able to remember 5 items on your list without looking, add a 6th, repeat the whole list from the start, add a 7th, and so on. It can be quite intimidating to see long lists, passages, or equations that you are expected to commit to memory. Break up the information into small bits that you can learn, one step at a time, and you may be surprised at how easy it can be. You might even utilize grouping techniques, like those discussed earlier, to form meaningful groups that you can learn one at a time.

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