# A Review on Practices to Improve Memory and Concentration

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Abstract: Memory applies to the mechanisms used to collect, archive, preserve, and later extract data. Memory involves three main processes: encoding, preservation, and retrieval. Human memory entails the capacity to both store and retrieve knowledge that we have acquired or encountered. However, as we all know, this is not a perfect operation. We all miss or misremember stuff from time to time. Perhaps items aren't correctly stored in memory to begin with. Memory disorders may vary from mild annoyances such as forgetting where you left your car keys to severe conditions such as Alzheimer's and other types of dementia that impair quality of life and capacity to work. For thousands of years, the analysis of human memory has been a focus of research and theory, and it has now become one of the main areas of concern within cognitive psychology. Concentration refers to the mental effort you direct toward whatever you're working on or learning at the moment. It's sometimes confused with attention span, but attention span refers to the length of time you can concentrate on something.

**Keywords:** Memory, Concentration. Collect, Archive, Preserve, Encoding, Data, Mental Effort.

### INTRODUCTION

Memory is classified into two sections. Short term, long term memory Short-term memory is the capacity to hold small amounts of information in the brain. Long-term memory is a different type of memory in which you hold information in your brain from the past. Each of these types of memories is very important to us and a person can lose each type of memory for different reasons.

A short-term memory's conversion to a long-term memory requires changes within the brain that protect the memory from interference from competing stimuli or disruption from injury or disease. This time-dependent process, whereby experiences achieve a permanent record in our memory, is called consolidation.

STAGE OF MEMORY FOUNDATION AND MAINTENANCE: In psychology, memory is broken into three stages: encoding, storage, and retrieval. Stages of memory: The three stages of memory: encoding, storage, and retrieval. Problems can occur at any stage of the process. Memory is the ability to take in information, store it, and recall it at a later time. In psychology, memory is broken into three stages: encoding, storage, and retrieval.

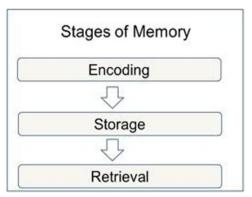


Fig 1. Stages of memory: The three stages of memory: encoding, storage, and retrieval. Problems can occur at any stage of the process.

#### THE MEMORY PROCESS

- Encoding (or registration): the process of receiving, processing, and combining information. Encoding allows information from the outside world to reach our senses in the forms of chemical and physical stimuli. In this first stage we must change the information so that we may put the memory into the encoding process.
- Storage: the creation of a permanent record of the encoded information. Storage is the second memory stage or process in which we maintain information over periods of time.
- Retrieval (or recall, or recognition): the calling back of stored information in response to some cue for use in a process or activity. The third process is the retrieval of information that we have stored. We must locate it and return it to our consciousness. Some retrieval attempts may be effortless due to the type of information.
- Problems can occur at any stage of the process, leading to anything from forgetfulness to amnesia. Distraction can prevent us from encoding information initially; information might not be stored properly, or might not move from short-term to long-term storage; and/or we might not be able to retrieve the information once it's stored.

**YOGA MODULES TO IMPROVE MEMORY:** Yoga asanas to improve memory: 5 yoga poses to increase your concentration and memory power.

- Padmasana (Lotus pose)
- Sarvangasana (Shoulder stand pose)
- Paschimottanasana (Seated forward bend pose)
- Padahastasana (Standing forward bend pose)
- Halasana (Plow pose)
- Yoga is a science that harnesses the innate capability of the body to improve its powers and functioning. It

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can act as an instant cognitive boost. It helps relieve stress, which enhances the operation of the brain. Also, breathing through the left nostril activates the right brain and vice versa. Super brain yoga is a series of simple yoga poses that are becoming increasingly popular among professionals and educators.

### BARRIERS TO CONCENTRATION

- Lack of enough willpower
- Lack of enough self-discipline
- Impatience
- Undisciplined mind
- Too much interest in other thoughts
- Physical and mental restlessness
- Lack of understanding of what concentration is
- Inability to sit still
- Ill health
- Lack of motivation to improve the concentration
- Too much stress and lack of enough rest

### CONCENTRATION ACCORDING TO MODERN PSYCHOLOGY:

Value attentiveness. Realize that you create your personal reality by what you pay attention to. All of us get much less out of life than we could, because we are not paying attention.

- Live in the now. An expert on this philosophy, Eckhart Tolle, says, "The clock's hands move, but it is always now." Grab the present intensely. You cannot know the future and you cannot re-do the past. You can correct for past weaknesses and mistakes and reduce their likelihood in the future, but it has to be done in the now.
- Be more aware. Consciously attend to what you are doing, why, and how. Be aware of how you feel. Emotions affect the ability to focus. If how you feel interferes with your concentration, change how you feel. It IS a choice.
- Notice the little things. Develop an eye for detail. See the forest, but also see the trees (and the leaves, bark, insects, birds, squirrels, and everything else there). Notice the small pleasures of life. This teaches you how to focus and makes you happier. Target things that are fun and provide positive reinforcement.
- ❖ Set goals, and monitor your progress. Keep track of how you are getting goals achieved and what adjustments need to be made along the way.
- ❖ Identify your "targets of attention." Think of what you are experiencing as targets for attentiveness and take mental aim at them. Targets should be interesting or have a clear value. If these attributes are not apparent, you must consciously enable them. Make tough choices about your targets of attention. Attend to those things that serve your own best interests. Choose challenging targets of attention, ones that push you to the edge of your competence.
- Shut out distractions. Don't be side-tracked by interruptions or mind wandering. In memory tournaments, contestants wear earplugs. Germans are said to wear glasses with side blinders. Some contestants face a blank wall.
- Don't multitask. This is the archenemy of attentiveness and profoundly interferes with the ability to learn—and specially to remember. Multitasking creates a superficial way of thinking that

- also imperils the ability to think deeply in intellectually demanding situations.
- ❖ Fight boredom. Make your targets of attention more engaging by creating competition or making them into some sort of game. Enliven dull work by thinking of it in novel ways. Find ways to change the pace of your attention. Don't let it become a drill.
- ❖ Make emotion work for you. Develop a passion for what you experience, as that will rivet your attention. Both negative and positive emotions work. The kiss of death for learning is to be bored and detached from what you are trying to learn. Ask any school teacher how big a problem that is for so many students.
- ❖ Practice attentiveness. Acquiring good concentration ability isn't much different from developing a good golf swing. You have to practice. Psychologist Ellen Langer suggests staring at your finger, for example. Attentiveness is cultivated from the more you notice: the dirt, distribution of hair, pattern of skin folds, shape of the knuckles, and features of the nail (shape, color of quick, ridges, etc.). Do similar exercises with any object you encounter. You will find that daily life experiences become more engaging. You will get more out of life.
- ❖ Learn how to meditate. See how long you can sustain focus on your breathing and keep out all intruding thoughts. Notice all things associated with the breathing, but nothing else. Hear the sound of the moving air with each breath. Feel the pulse in your neck. If you don't feel it, crook your neck or lie down to feel it in your back or hear it by turning your ear to a pillow. Notice the rhythm and the gradual slowing. Feel your clothes shifting position and the tension flowing out of your muscles, first in the jaw, then in the back and legs. Not only does meditation teach your brain how to concentrate, it also lowers blood pressure and contributes to peace of mind.

### DHARANA AS PER PATANJALI- BINDING TO A PARTICULAR:

Dharana is the sixth of the Eight Limbs of Yoga as described by Patanjali in the Yoga Sutras. It refers to concentration of the mind. Practicing dharana involves fixing the mind on a particular object — either external (such as an image or deity) or internal (such as a chakra).

Dharana is a Sanskrit word which means "concentration.

The last three limbs of Ashtanga yoga — dharana, dhyana (meditation) and samadhi (enlightenment) — are collectively referred to as sanyam, which means "control." Patanjali explains dharana as the binding of attention to anything more than a single spot. He also states that the last three limbs should be considered together, as they are progressive stages of concentration.

Practicing dharana leads the practitioner to dhyana, which is the next stage of Ashtanga yoga. Dharana is the practice of concentrating on a particular subject, and dhyana is the state in which total concentration is achieved. This eventually leads to the eighth limb, samadhi, which is the deepest stage of concentration.

To practice dharana, the individual should choose a calm place and assume a comfortable seated position. The eyes can be kept shut to focus on a chakra or mantra, or they can remain open to fix the vision and mind on an external object.

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Beginners can practice dharana for about 10 minutes, then increase the duration as they advance.

Yoga can help an individual master the art of dharana because it involves focusing on the breath, body or even a mantra. Regular practice of dharana enhances yoga practice by improving the practitioner's ability to remain focused, no matter what they are doing. It trains the mind to remain calm and increases mental strength.

### PRACTICE TO IMPROVE CONCENTRATION:

- Train your brain. Playing certain types of games can help you get better at concentrating.
- Get your game on, Brain games may not be the only type of game that can help improve concentration.
- Improve sleep.
- Make time for exercise.
- Spend time in nature.
- Give meditation a try.
- Take a break.
- Listen to music.
- Vary your diet.
- Drink caffeine.
- Try supplements.
- Do a concentration workout.

#### **CONCLUSION**

Learning and memory can be studied from a variety of vantage points. First, memory is a critical psychological function. You can have a behaving organism which doesn't have a memory --which operates purely on reflex, taxis, and instinct to respond to physical stimuli that are present in the current environment. But such an organism is severely limited.

- It can't respond to situations that are not physically present, because it has no way of representing them mentally.
- It can't respond to a rapidly changing environment, because its behavioral mechanisms have been fixed over the slow course of evolutionary time.
- It can't analyze current stimuli for meaning, because it lacks the cognitive capacity to analyze anything beyond the physical stimulus.

Memory takes us beyond the present, and permits us to transcend the here-and-now. Without memory, intelligent behavior - behavior which responds flexibly to changes in the situation - just isn't possible, because memory provides the cognitive basis for other cognitive functions.

In particular, memory affords the possibility of learning, defined traditionally as relatively permanent changes in behavior that occur as a result of experience -- because memory is what makes these changes permanent. Without memory, some capacity to store the changes in knowledge that underlie the changes in behavior, learning just isn't possible.

Memory is also the cognitive basis of perception. In Bruner's famous aphorism, perception requires that the perceiver go "beyond the information given" by the proximal stimulus.

- Memory allows the perceiver to recognize a distal stimulus as familiar, by connecting the current event to past events.
- Memory allows the perceiver to infer the attributes, correlates, and consequences of the stimulus, by drawing on previously acquired world knowledge.
- Put another way, paraphrasing Bruner, every act of perception is an act of categorization. In categorization, the mental representation of the stimulus makes contact with pre-existing knowledge stored in memory, so that the perceiver can determine how the stimulus is similar to some objects and events, and different from others. This categorical knowledge is stored in memory, and categorization changes the contents of memory -- by adding a new instance to the category.

Memory provides the basis for thought and language.

- The rules of judgment, decision-making, and grammar are stored in memory.
- Objects and events are symbolically represented by words, and this mental lexicon is also stored in memory.

Finally, memory provides the basis for some emotions and motives.

- Some emotional responses involve the comparison between the present and the past. This is not possible without mental representations of the past stored in memory.
- Some motives involve representations of long-term goals, not immediately presented by the environment. This, also, is not possible without mental representations of the future stored in, or at least generated by, memory.