

How to Develop Mental Skill

Mental skills help us in accomplishing our daily life activities. Mental skills are the cognition-behavioural interplay and our abilities related to memory, analytical capabilities, concentration, and intelligence facilitated by our brain. In every walk of our life we use these skills, sometimes simultaneously and sometimes in rapid alternation.

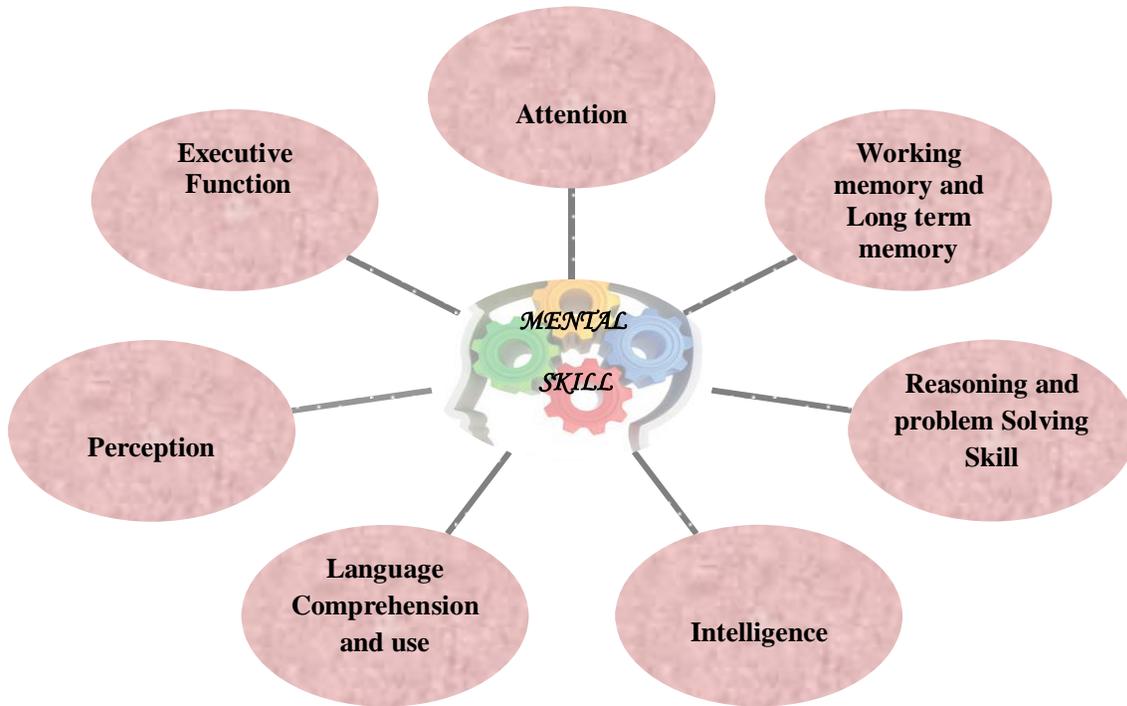


Figure 1. Various mental skills.

How these Mental Skills help you:

- ◆ Remove the obstacles for achieving peak performance.
- ◆ Enhance consistency in preparation and successful performance.
- ◆ Increase ability to accomplish goals and to perform even under pressure.
- ◆ Prepare to handle the challenges.
- ◆ Develop confidence for further improvement in your performance.

What do these mean? How can we enhance these mental skills?

Attention and Perception

Attention and perception has several overlapping characteristics. Attention serves as gateway to perception.

Attention is a process through which we select certain stimuli. Besides selection it takes care of other properties like, alertness, concentration and search. Arousal is an important factor for attention and by maintaining it at optimal level one can achieve maximum attention capacity.

How to improve our attention:

- ◆ **Focus on the task at hand:** Keep asking questions about the task entrusted to you to understand it in a better way, so that you are able to focus.
- ◆ **Avoid distractions**
- ◆ **Do not try to do many tasks at a time:** This would divide your attention and increase the chance of errors, because you concentrate less on individual task.

1. **Selective attention:** Concerned mainly with the selection of a limited number of stimuli or objects from a large number of stimuli.
2. **Sustained attention:** Maintaining attention for prolonged period of time.
3. **Divided attention:** Attending two or more things at the same time.



1. **Bottom-up Perception:** Perception of stimuli begins from its parts. It emphasizes on features of stimuli.
2. **Top-down perception:** Perception begins from the whole. It emphasizes on perception of stimuli as a whole

Perception is a process through which we recognize, interpret and assign meaning to the information gathered through our sense organs. In interpreting stimuli or events, individuals often construct them in their own ways. Make effort to enhance your perception of environment and improve perceptual processing.

Improving attention – this would also improve your perceptual ability.

Working Memory and Long Term Memory

Memory refers to our ability of retaining and recalling information over a period of time. Long term memory requires retention of information for longer period of time whereas, working memory hold information for short period of time. While retaining information it also transforms and processes information to fulfill the requirement of current situation.

We can enhance memory capacity by following these techniques:

- ◆ **Pay attention and concentrate** on the given information.
- ◆ **Relate the information to your learning.** Relate the information to something you know already. The more personal the information becomes, the easier it is to remember. For making it personal ask yourself
 - how it makes you feel
 - where else you have heard this
 - whether there is something in your personal life related to this piece of information.
- ◆ **Repeat the information:** Come back to it more than one time. Repeated information is easier to recall. Spaced retrieval (a method with which a person is cued to recall a piece of information at different intervals) is one of the methods that has shown good results even in those suffering with memory loss as in the Alzheimer's patients.
- ◆ **Elaborate on the information:** Think about it. Things that are concrete and have a clear meaning are easier to remember.
- ◆ **Attach meaning to the information** you are trying to memorize – it will make it easier to recall later. For instance, try to picturise the information in your head. Pictures are much easier to memorize than words. To remember figures and percentages it is much easier to picture these in a graph for instance.
- ◆ **Use your state, mood and environment as a cue to retrieve stored information.**
- ◆ **Use mental imagery and various mnemonics** like Chunking, Acronyms, Method of loci, Rhymes etc. to improve your memory retention.



Language Comprehension

It is the ability to understand the symbols of language and their use to communicate. To enhance your linguistic capacity do following activities:

- ◆ Pronounce the language properly.

- ◆ Speak with grammatical accuracy.
- ◆ Build your vocabulary.
- ◆ Understand and produce longer stretches of speech - such as, stories, directions, instructions.
- ◆ Use the language to accomplish your purposes and get things done.
- ◆ Use words and ways of speaking appropriate for different situations.
- ◆ Interact with other people appropriately when talking with them.
- ◆ Understand more about what the people you talk to are like and why they behave the way they do.



Intelligence

Intelligence is individual's ability to understand complex ideas, to adapt effectively to the environment, to learn from experience, to engage in various forms of reasoning to overcome obstacles by careful thought. Intelligence has various sub types such and by practicing activities related to the type of intelligence one can achieve high level of intelligence (see table 1).

Table 1: Showing activities to develop intellectual ability.

Type of Intelligence	Activities to develop particular Intelligence
Verbal Intelligence	<ul style="list-style-type: none"> • Involves reading, writing, speaking, and conversing. • Exercise it through learning a new language, reading interesting books, playing word games, listening to recordings, using a computer, and participating in conversation and discussions online.
Logical Intelligence	<ul style="list-style-type: none"> • Involves number and computing skills, recognizing patterns and relationships, timeliness and order, and the ability to solve different kinds of problems through logic. • Exercise it through classifying and sequencing activities, playing number and logic games, and solving various kinds of puzzles.
Spatial Intelligence	<ul style="list-style-type: none"> • Involves visual perception of the environment, the ability to create and manipulate mental images. • Develop it through drawing, painting, sculpting, sharpening observation skills, solving mazes and other spatial tasks, and exercises in imagery and active imagination.

Body Intelligence	<ul style="list-style-type: none"> • Involves physical coordination and dexterity, using fine and gross motor skills, and expressing oneself or learning through physical activities. • Develop it by dancing, playing various active sports and games, as well as taking up martial arts or yoga.
Musical Intelligence	<ul style="list-style-type: none"> • Involves understanding and expressing oneself through music and rhythmic movements or dance, or composing, playing, or conducting music. • Practice it by listening to a variety of recordings, and singing, dancing, or playing an instrument.
Social Intelligence	<ul style="list-style-type: none"> • Involves understanding how to communicate with, and understand other people, and how to work collaboratively. • Develop it through cooperative games, group projects and discussions, as well as dramatic activities or role-playing.
Emotional Intelligence	<ul style="list-style-type: none"> • Involves understanding one's inner world of emotions and thoughts, and growing in the ability to control them and work with them consciously. • Develop it through participating in independent projects, reading illuminating books, journal-writing, imaginative activities and games, counseling, and quiet reflection.
Creative Intelligence	<ul style="list-style-type: none"> • Involves creating something new with your mind or with your body. • Develop it by participating in plays or make-believe games, by writing, painting, decorating, handicrafts, cooking and so on.

Problem Solving and Reasoning

Problem solving is an effort to develop or choose among various responses in order to attain desired goals, whereas, in reasoning we transform information in order to reach specific conclusions. Problem solving can be made easier by using Algorithms, Heuristics and Analogy approach. Reasoning can be both deductive and inductive. Deductive reasoning is used when one goes from general information to specific information to arrive at an answer. It has been proposed that reasoning that uses this chain-like way of thinking is largely dependant on memory skills. Inductive reasoning does not lead to one solution to a problem, but to solutions that have different levels of possibly solving the problem. In this sort of reasoning the person takes a specific situation and generates many general solutions.

Knowledge acquisition is not short term deed. You have to make continuous and long term effort to learn skills. To enhance your problem solving and reasoning skill, go through the following:

- ◆ **Enjoy with puzzles, Sudoku etc.** It will develop your grey matter to help in critical thinking.
- ◆ **Ask why? Ask why not?** It will help you in making causal-effect relationship.

◆ **Cultivate habit of “if-then-else”.** Whatever you do analyze it if it happens then what will be result. This will create if-then-else map in your brain and will increase your reasoning ability.

◆ **Develop your reasoning ability.**

Executive Function

Executive function is a type of attentional mechanism used to maintain current task goals, process incoming information and block external (environmental distracters) and internal (other unrelated long-term memory units) interference.

Executive functions may be of different types:

1. Shifting between tasks or mental sets.
2. Updating and monitoring of representation in working memory.
3. Inhibition of dominant or proponent responses.
4. Maintenance of task relevant information in the face of distraction or interference and suppressing or inhibiting information irrelevant to the task.
5. Categorization and sequencing of elements.

Researchers suggest that executive function training leads to neuroplasticity and augment this ability. Training program includes several attentional, cognitive and intelligence tasks.

Exercise your brain

Regularly "exercising" the brain keeps it growing and spurs the developments of new nerve connections that can help improve brain functioning.

- Try some fun puzzle exercises everyday such as crosswords, Sudoku, and other games which are easy enough to for anyone.
- Try something that is new and challenging, which makes you flex your brain muscles.

Follow these steps to develop mental skills:

- ◆ Maintain a positive attitude
- ◆ Maintain a high level of self-motivation
- ◆ Set high, realistic goals
- ◆ Deal effectively with people
- ◆ Use positive self-talk
- ◆ Use positive mental imagery
- ◆ Manage anxiety effectively
- ◆ Manage emotions effectively
- ◆ Maintain concentration

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- ◆ These skills are learnt and improved through practice.
 - ◆ Begin your work by assessing your current proficiency in each of the skills.
 - ◆ Develop a plan for enhancing the specific skills that need improvement.
 - ◆ Periodically reassess the proficiency in each of the skills in order to evaluate your progress.

- Try to play chess or a fast-paced board game. By doing these activities you can keep your brain active and improve its physiological functioning.

Take proper Sleep

When you're sleep deprived, your brain can't operate at full capacity. Creativity, problem-solving abilities, and critical thinking skills are compromised. Whether you're studying, working, or trying to juggle life's many demands, sleep deprivation is disastrous. Sleep is critical for learning and memory in a fundamental way.

Research shows that sleep is necessary for memory consolidation. The key memory-enhancing activities occur during the deepest stages of sleep.

Reduce Stress

Reducing the stress in your life will take a lot of reflection and action, but it will be worth it. If you're less stressed, you'll be able to sleep better, will have a more positive outlook on life, and will be much more able to enjoy your daily interactions.

To reduce stress, you have to work on minimizing the stressful situations in your life and to relax your mind and body. By changing your perception, altering your thought, doing exercises like yoga and meditation you can reduce harmful and negative stress. Specific diet also helps to reduce stress.



Figure 2: Food that reduces stress.

Eat a brain-boosting diet

Just as the body needs fuel, so does the brain. Diet based on fruits, vegetables, whole grains, “healthy” fats (such as olive oil, nuts, fish) and lean protein provides lots of health benefits, and also improve memory. But for brain health, it’s not just what you eat - it’s also what you don’t eat. The following nutritional tips will help boost your brainpower:

- ◆ **Get omega-3s** (Fish, walnuts, ground flaxseed, flaxseed oil, winter squash, kidney and pinto beans, spinach, broccoli, pumpkin seeds, and soybeans)
- ◆ **Limit calories and saturated fat** (red meat, butter, cheese, sour cream, and ice cream)
- ◆ **Eat more fruits and leafy green vegetables** such as spinach, broccoli, romaine lettuce, Swiss chard, and arugula, and fruit such as bananas, apricots, mangoes, cantaloupe, and watermelon.
- ◆ **Drink green tea.** Green tea contains polyphenols, powerful antioxidants that protect against free radicals that can damage brain cells. Among many other benefits, regular consumption of green tea enhances memory and mental alertness and slow brain aging.

It is extremely difficult to accomplish our daily life activities without having adequate mental skills. Therefore, by enhancing the capacity of our mental skills we can make our life easier. Mental skills can also be developed by altering our life style and doing some physical exercise. Physical exercise benefits the brain. Getting engaged in regular aerobic activity leads to positive changes in the brain that are associated with improved cognition. Brain and cognitive health can benefit even from very modest increases in exercise and physical activity. You can do yoga and meditation as exercise.
