



THINKING

DR.S.SUJITHRA,
Principal RGI



Introduction to Thinking

- Cognitive abilities like thinking, reasoning and problem-solving may be considered to be some of the chief characteristics which distinguish human beings from other species including the higher animals.
- The challenges and problems faced by the individual or by society, in general are solved through series of efforts involving thinking and reasoning.
- The powers of thinking and reasoning may thus be considered to be the essential tools for the welfare and meaningful existence of the individual as well as society.

A. Thinking:

DEFINITION:

Gilmer:

Thinking is a problem-solving process in which we use ideas or symbols in place of overt activity”.

Mohsin:

“Thinking is an implicit problem-solving behaviour”.

TYPES OF THINKING

Thinking can be classified as follows:

1. Perceptual or Concrete Thinking:

This is the simplest form of thinking the basis of this type is perception, i.e. interpretation of sensation according to one's experience. It is also called concrete thinking as it is carried out on the perception of actual or concrete objects and events.

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2. Conceptual or Abstract Thinking:

Here one makes use of concepts, the generalized objects and languages, it is regarded as being superior to perceptual thinking as it economizes efforts in understanding and problem-solving.

3. Reflective Thinking:

- This type of thinking aims in solving complex problems, thus it requires reorganization of all the relevant experiences to a situation or removing obstacles instead of relating with that experiences or ideas.
- This is an insightful cognitive approach in reflective thinking as the mental activity here does not involve the mechanical trial and error type of efforts.

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4. Creative Thinking:

- This type of thinking is associated with one's ability to create or construct something new, novel or unusual.
- It looks for new relationships and associations to describe and interpret the nature of things, events and situations.
- Here the individual himself usually formulates the evidences and tools for its solution.
- For example; scientists, artists or inventors.

Skinner, the famous psychologist says creative thinking means that the prediction and inferences for the individual are new, original, ingenious and unusual. The creative thinker is one who expresses new ideas and makes new observations, new predictions and new inferences.

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Characteristics of Creative Thinking:

- a. Creative thinking, in all its shapes and forms is absolutely an internal mental process and hence should be considered as an important component of one's cognitive behaviour.
- b. Every one of us is capable of creative thinking and hence it is a universal phenomenon.
- c. Creative thinking results in the production of something new or novel including a new form of arrangement of old elements.
- d. Creative thinking in all its dimensions involve divergent thinking instead of the routine and final types of convergent thinking. The mind must have complete freedom to wander around to create a new idea.

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5. Critical Thinking:

It is a type of thinking that helps a person in stepping aside from his own personal beliefs, prejudices and opinions to sort out the facts and discover the truth, even at the expense of his basic belief system.

Here one resorts to set higher cognitive abilities and skills for the proper interpretation, analysis, evaluation and inference, as well as explanation of the gathered or communicated information resulting in a purposeful unbiased and self-regulatory judgement.

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5. Critical Thinking:Cont.....

The critical thinking is of a higher order well-disciplined thought process which involves the use of cognitive skills like conceptualization, interpretation, analysis, synthesis and evaluation for arriving at an unbiased, valid and reliable judgment of the gathered or communicated information or data as a guide to one's belief and action.

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6. Non-directed or Associative Thinking:

There are times when we find ourselves engaged in a unique type of thinking which is non-directed and without goal.

It is reflected through dreaming and other free-flowing uncontrolled activities. Psychologically these forms of thought are termed as associative thinking.

Here day-dreaming, fantasy and delusions all fall in the category of withdrawal behaviour that helps an individual to escape from the demands of the real world by making his thinking free non-directed and floating, placing him somewhere, ordering something unconnected with his environment.

Development of Thinking:

- Thinking is one of the most important aspects of learning process. Our ability to learn and solve the problems depends upon our ability to think correctly which helps us in adjustment and is necessary for a successful living.
- Only those men who can think distinctly, constructively and carefully can very much contribute something worthwhile to the society.
- As no person is born-thinker, one has to acquire knowledge of technique and practise of proper thinking.
- There are few methods which help to develop thinking through training.

1. Adequacy of the Knowledge and Experience:

- Adequacy of the knowledge and experience is considered to be the background of systematic thinking.
- So care should be taken to help the children with adequate knowledge and experiences which can be done by:
 - (a) Training the children to enhance the process of sensation and perception to gain better knowledge and experience to improve critical thinking.
 - (b) A person should be provided with opportunities for gaining adequate experiences and should be encouraged for self-study, discussion and participation in healthy and stimulating activities.

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2. Adequate Motivation and Definiteness of Aims:

- **Motivation helps in mobilizing our energy for thinking. It creates genuine interest and voluntary attention in the process of thinking, and thus helps a lot in increasing the adequacy and efficiency of our thinking.**
- **Thus one should try to think on definite lines with a definite end or purpose, the problems we solve should have intimate connection with our immediate needs and basic motives, and such thinking should be directed on creative and productive activities.**

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3. Adequate Freedom and Flexibility:

- Thinking should not be obstructed by imposing unnecessary restrictions and narrowing of the field of thought process.
- If the past experiences or habitual methods do not help in solving the problem we should strive for new association, relationships and possibilities for arriving at satisfactory results.

4. Incubation:

- When we set ourselves to solve a problem but fail to solve it in spite of our strain, putting more efforts to thinking and persistent thinking, it is better to lay aside the problem for some time and relax for a while or engage in some other activity.
- During this interval a solution is evolved to that specific problem through the efforts of our unconscious mind.
- This phenomenon of incubation is helpful

5. Intelligence and Wisdom:

- Intelligence is defined as the ability to think properly, and thus proper development of intelligence is essential for bringing adequate thinking.
- Proper care should be taken to use intelligence, wisdom and other cognitive abilities for carrying out the process of thinking.

6. Proper Development of Concepts and Language:

Concept is a word or idea with a generalized meaning which represents an entire class of objects, ideas or events;

for example, a word “saree” is a concept, when you think this word it represents all kinds of sarees which are six yards or eight yards long sarees made of silk, cotton, nylon or a mixture of the concept formation begins in early childhood which are first hand face-to-face example.

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- Concepts, symbols, signs, words and language are the vehicles as well as instruments of thought. Without their proper development one cannot proceed effectively on the path of thinking.
- Their development stimulates and guides the thought process.
- Improper development and faulty formation of concepts and likewise, symbolic behaviour not only hampers a person's progress in thinking but also proves fatal, as they may provoke perverted thinking and wrong conclusions.

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7. Adequacy of Reasoning Process:

Thinking is also influenced by the mode of reasons one adopts. Illogical reasoning often leads to incorrect thinking. Logic is the science of correct reasoning which helps to think correctly. Therefore, we should cultivate the habit of logical reasoning among our children.

TOOLS

There are a few important elements involved in the thinking process:

1. Images:

As mental pictures consist of personal experiences of objects, persons or situations, heard and felt. These mental pictures symbolize actual objects, experiences and activities. In thinking, we usually manipulate the images rather than the actual objects, experiences or activities.

2. Concepts:

A concept is a general idea that stands for a general class and represents the common characteristics of all objects or events of this general class. Concept, as a tool, economize the efforts in thinking, for example, when we hear the word 'elephant' we are at once reminded not only about the nature and qualities of elephant as a class but also our own experiences and understanding of them come to the surface in our consciousness to stimulate our thinking at that time.

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3. Symbols and signs:

Symbols and signs represent and stand for substitute of the actual objects, experiences and activities. For example, traffic lights, railway signals, school bells, badges, songs, flags and slogans all are symbolic expressions, they stimulate and motivate resultant thinking because they tell us what to do or how to act.

4. Language:

Is the most efficient and developed vehicle used for carrying out the process of thinking. When a person reads, writes or hears words or sentences or observes gesture in any language one is stimulated to think. Thus reading and writing of documents and literature also help in stimulating and promoting the thinking process.

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5. Muscular activities:

Thinking in one way or the other shows the evidence of the involvement of some incipient movements of groups of our muscles. A high positive relation has been found to exist for the thinking and muscular activities of an individual. The more we engage ourselves in thought, the greater is the general muscular tension and conversely as we moved towards muscular relation, our thought processes gradually diminish.

6. Brain functions:

Whatever may be the role of the muscles, thinking is primarily a function of the brain. Our mind is said to be the chief instrument of the thinking process. The experiences registered by our sense organs have no meaning, and thus cannot serve as stimulating agents, or instruments for thinking unless these impressions are received by our brain cells and properly interpreted to derive some meaning.

