

# 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. A magnificent building are, all products of the thinking, reasoning and problem-solving capabilities of their creators and inventors. The challenges and problems faced by the individual, or by society, in general, are solved through reasoning may thus be considered to be the essential tools for the welfare and meaningful existence of the individual as well as society. We will now try to learn something about the processes involved in the thinking, reasoning and problem- solving behavior of human beings.

## **Definitions of Thinking :**

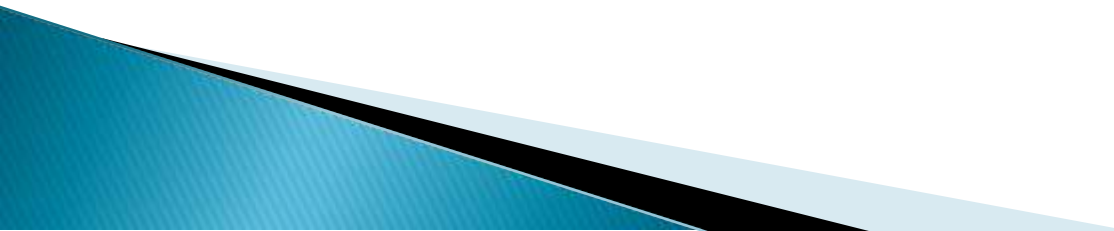
thinking is an incredibly complex process and the most difficult concept in psychology to define or explain. However, it has not deterred the thinkers, and many different definitions exist.

### **1. Valentine (1965) :**

“ in strict psychological discussion it is well to keep the thinking for an activity which consists essentially of a connected flow of ideas which are directed towards some end or purpose.

### **2. Ross (1951) :**

“ Thinking is mental activity in its cognitive aspect or mental activity with regard to psychological objects.”



### **3. Garrett (1968) :**

“ Thinking is behavior which often implicit and hidden and in which symbols (images, ideas, concepts) are ordinarily employed.


### **4. Mohsin (1967) :**

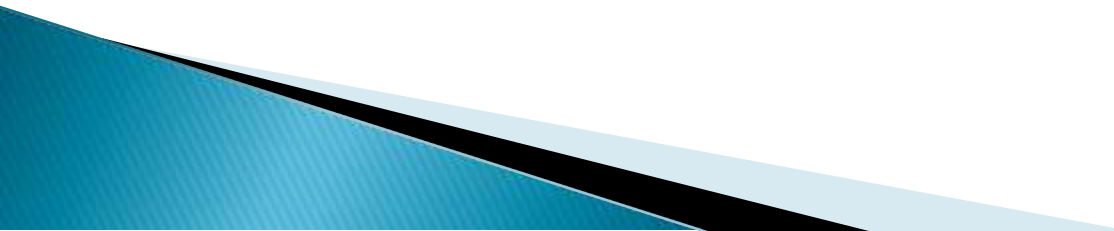
“ Thinking is an implicit problem – solving behavior.”

### **5. Glimer (1970) :**

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

### **Nature of thinking :**

1. Thinking is essentially a cognitive activity.
  2. It is always directed towards achieving some purpose. In genuine thinking we cannot let our thoughts wander aimlessly
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3. Thinking is described as a problem solving behavior. From the beginning till end, there is some problem around which the whole process of thinking resolves. But every problem – solving behavior is not thinking. It related only to the inner cognitive behavior.
  4. In thinking, there is mental exploration rather than motor exploration. One has to suspend one's overt or motor activities while engaging in thinking through some kind of mental exploration or the other.
  5. Thinking is a symbolic activity. In thinking, a mental solution of the problem is carried out through some signs, symbols and mental images.
  6. Thinking can shift instantaneously over a span of time and space.
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## **Types of thinking :**

1. Perceptual or concrete thinking.
2. Conceptual or abstract thinking.
3. Reflective thinking.
4. Creative thinking.
5. Critical thinking.
6. Non- directed or associative thinking.

## **Creative**

Creativity is one of the most highly valued human qualities, creative acts determine the scientific progress. Those nations which learn best how to identify, develop and encourage creativity in their people, may find themselves in a advantageous position. In the light of this, every teacher must have knowledge of creative children, their characteristics and the various measures to foster creativity among his students.

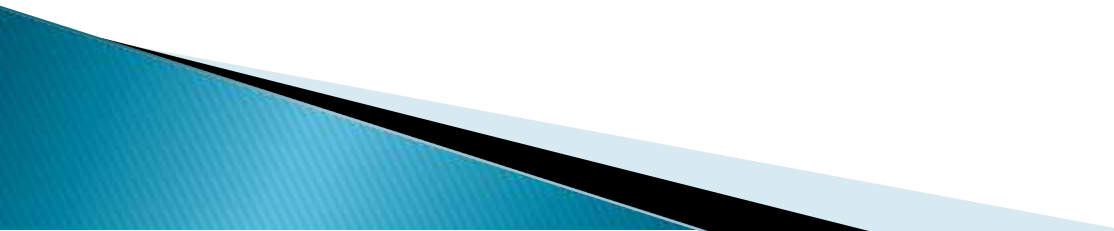
## Meaning of Creativity :

The term of creativity has its origin from the **Latin word “Creare”**, which means to **create**. Generally creativity means **seeing or expressing new relationship among things or ideas**. Every child is creative to some extent in this sense of the term. The amount of creativity and its dimensions vary from individual to individual.

Creative children are assets to the society. Development and progress in various fields of national life depends on creative children. We must try to develop creativity in all children so that they may excel in their fields of interest and can lead the nation ahead. They should shoulder their responsibilities in an adequate manner.

Our school should aim at the development of creativity in school children to prepare leaders in different walks of life. The school should screen creative children and should provide them all possible facilities for the development of their talents.

## **Characteristics of Creative Children :**

1. The creative child shows strong convictions in his beliefs and values. He can go beyond socially conformist behavior.
  2. The creative child is curious to know more and more about his environment.
  3. He is independent in thinking about the problems of various types.
  4. He develops intuition in his problems.
  5. He is willing to take risks and has risk taking capacity.
  6. He can use materials, words or ideas together to get a new idea.
  7. He is willing to experiment to get answers to various questions in his mind.
  8. He asks many questions as he has great deal of intellectual curiosity.
  9. He has divergent thinking ability.
  10. He is flexible and open minded.
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# Factors Influencing Creativity :

## 1. Cognitive Factors

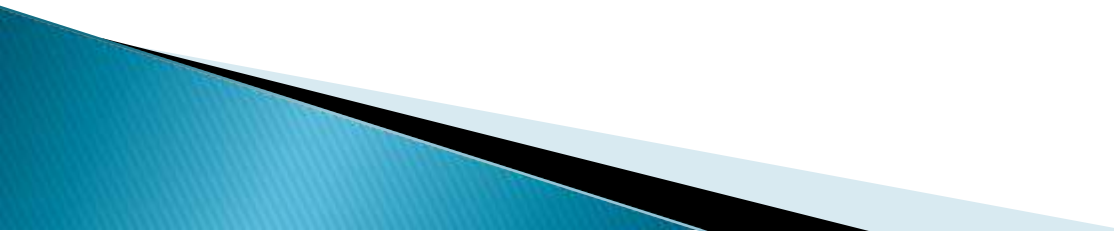
- Fluency
- Ideational fluency
- Associational fluency
- Expressional fluency
- Originality
- Flexibility
- Spontaneous flexibility
- Adaptive flexibility
- Elaboration

## 2. Personality Factors

## 3. Environmental Factors



## **Creative Thinking :**

- \* This type of thinking, as the name suggests, 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.
  - \* It is not restricted by any pre-established rules.
  - \* the individual himself usually formulates the problem and is also free to collect the evidences and to fashion the tools for its solution.
  - \* the thinking of scientists, artists or inventors provides ideal examples for such type of thinking.
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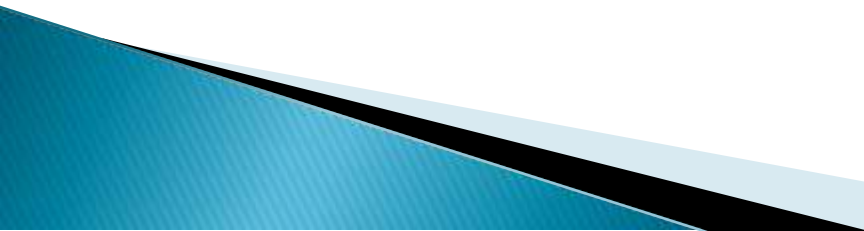
## **Definition of Creative Thinking :**

### **1. Charles Skinner (1968) :**

“ Creative thinking means that the predictions and / or inferences for the individual are new, original, ingenious, unusual. The creative thinker is one who explores new areas and makes new observations, new predictions, new inferences”.


### **2. M.J.Levin (1978) :**


“ It is a special form of thinking, a way of viewing the world and interacting with it in a manner different from that of the general population. It is the ability to discover new solutions to problems or to produce new ideas, inventions or works of art”.



Finally we say about meaning of creative thinking “ **that type of thinking which helps an individual to create, discover or produce a new idea or object including the rearrangement or reshaping of what is already known to him**”.

### **Nature and Characteristics of Creative thinking :**


1. 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 behavior.
  2. Every one of us is capable of creative thinking and hence it is a universal phenomenon.
  3. Creative thinking results in the production of something new or novel (including a new form or arrangement of old elements).
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4. Any creative expression as a result of one's creative thinking is a source of joy and satisfaction for the creator.
  5. Although our creative abilities involving creative thinking are natural endowments, they can be nourished and nurtured by training or education.
  6. Creative thinking in all its dimensions involve divergent thinking instead of the routine and fixed type of convergent thinking. The mind must have complete freedom to wander around to create a new idea.
  7. The field of creative thinking and its output is quite comprehensive and wide. It covers all the aspects of humana accomplishments belonging to an individual's life.
  8. psychologists, on the basis of their researches, have agreed on the presence of following elements or factors in one's creative thinking :
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## **Elements or factors in one's Creative thinking :**

- 1. Ideational Fluency.**
- 2. Originality.**
- 3. Flexibility.**
- 4. Divergent thinking.**
- 5. Self-Confidence and persistence.**
- 6. Ability to see and build relationships.**

## **Development of Thinking**

1. Adequacy of the knowledge and experiences.
  2. Adequate motivation and definiteness of aim.
  3. Adequate freedom and flexibility.
  4. Incubation.
  5. Intelligence and wisdom.
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6. Proper development of concepts and language.

7. Adequacy of reasoning process.

