What is Thinking?

Thinking is the Meaningful Mental Representation of the External Events or Experiences with a purpose of Attaining a Goal or Solving a problem
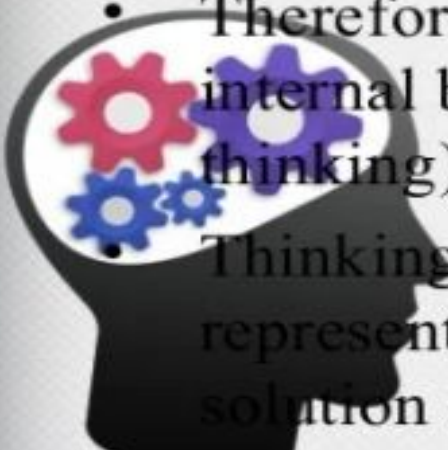
Features of thinking

- ❖ It is a Cognitive function

- ❖ It is Purposeful

- ❖ It is a part of Problem Solving

- ❖ It is Symbolic

Thinking

- Thinking is an incredibly complex process and a most difficult concept in Psychology to define or explain.

- The following definitions given by some eminent scholars can throw more light on the meaning of thinking

- Ross: "Thinking is a mental activity in its cognitive aspect or mental activity with regard to psychological objects ".

- Garret: "Thinking is behavior which is often implicit and hidden and in which symbols (Images, Ideas, Concepts) or ordinarily employed."

- Therefore in a workable definition of thinking we must try to combine internal behavior with the product of thinking(the aims of purpose of thinking) in such a case we may define thinking a below.

- Thinking refers to a pattern of behavior which we make use of internal representations (Symbols, Signs etc) of the things and events for the solution of some specific purposeful problems.

Nature of Thinking

- It's cognitive activity
- It's directed to achieve some end or purpose.
- It's described as problem solving behavior.
- There is a mental exploration instead motor exploration.
- Its symbol activity. (Signs Symbols Mental Imagines)
- It can be shifted very rapidly

TYPES OF THINKING

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Thinking is mental process is usually classified into th
following types.

- Perceptual or Concrete thinking
- Conceptual or Abstract thinking
- Reflective Thinking
- Creative Thinking
- Non Directed or Associative Thinking:

Perceptual or Concrete thinking:

- It is simplest form of thinking. The basis of this type of thinking is perception that is interpretation of concision according to one's experience. It is carried over the perception of actual or concrete objects or events.

Conceptual or Abstract thinking:

- Like perceptual thinking it does not require the perception of actual objects or events it is an abstract thinking where one makes use of concepts, generalize the ideas and language. It is regarded as a superior type of to perceptual thinking as it economizes efforts in understanding and problem solving.

- **Reflective Thinking:**

- It is somewhat of a higher form of thinking. It can be distinguished from simple thinking in the following ways.
- It aims at solving complex problems rather than simple problem.
- It requires re organization of all relevant experience and finding new ways of reacting to a situation.
- Mental activity in reflective thinking does not undergo any mechanical trial and error type of effort. There is an insightful cognitive approach in reflective thinking.
- It takes logic into account in which all the relevant facts are arranged in a logical order, in order to get the solution of problem in hand.
- **Creative Thinking:**
- This type of thinking chiefly aimed at creating something new.
- The thinking of scientist and inventors are the examples of creative

Non Directed or Associative Thinking:

- It is essentially a directed thinking which pertains to reasoning and problem solving procedures aimed at meeting specific goals. However, there are times when we find ourselves engage in a unique type of thinking which is non-directed and without goals.

- Examples: Day dreaming, fantasy and delusions all fall in the category of this thinking.

What is Reasoning?

Reasoning is a higher level of thinking which is characterized by systematic and step-wise mental procedures with more controlled and selective nature
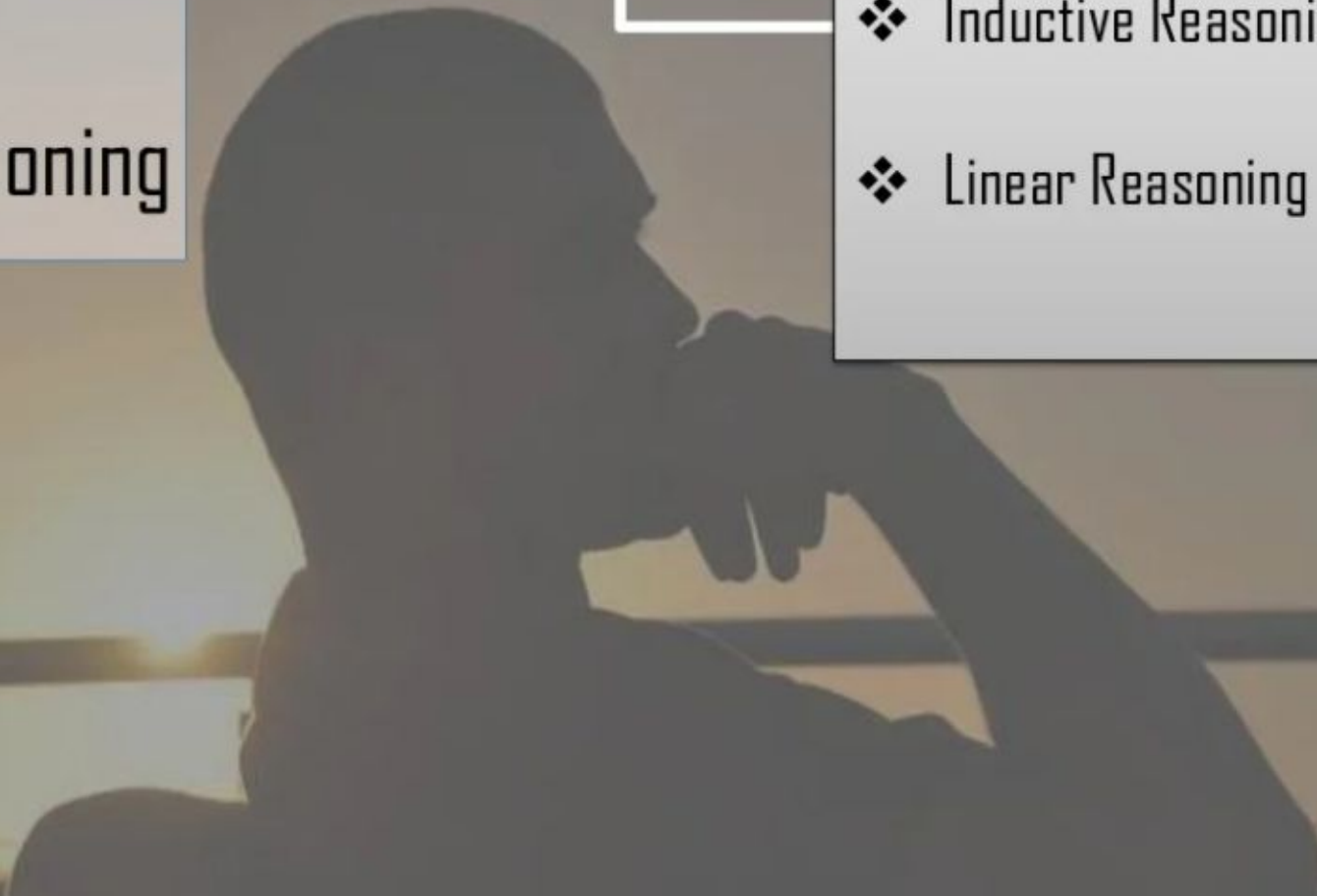
Features of Reasoning

❖ It is a higher level of thinking

❖ It is Purposeful

❖ It is Systematic

❖ It is well Controlled

❖ It is Selective Thinking

Types of Reasoning:

- **Inductive Reasoning:**
- In this type of reasoning we usually follow the process of induction. Induction is the way of proving or statement or generalizing or rule or principle by proving or showing that if a statement or a rule is true in one particular case it will be true in cases which appears in some serial order. It may be applied generally to all such type of cases.
- Examples: Robert is a teacher. All teachers are nice. Therefore, it can be assumed that Robert is nice.
- : Jenny is a dancer. Dancers are thin and tall. Jenny is thin and tall.
-

- **Deductive Reasoning:**
- It just opposite to inductive reasoning, Here one start completely agreeing with some already discovered or reestablished generalizes fact or the principle and types to apply it to particular cases.

Example of Deductive Reasoning

- Examples: To earn a master's degree, a student must have 32 credits. Kareem Bux has 40 credits, so

- Kareem Bux will earn a master's degree.
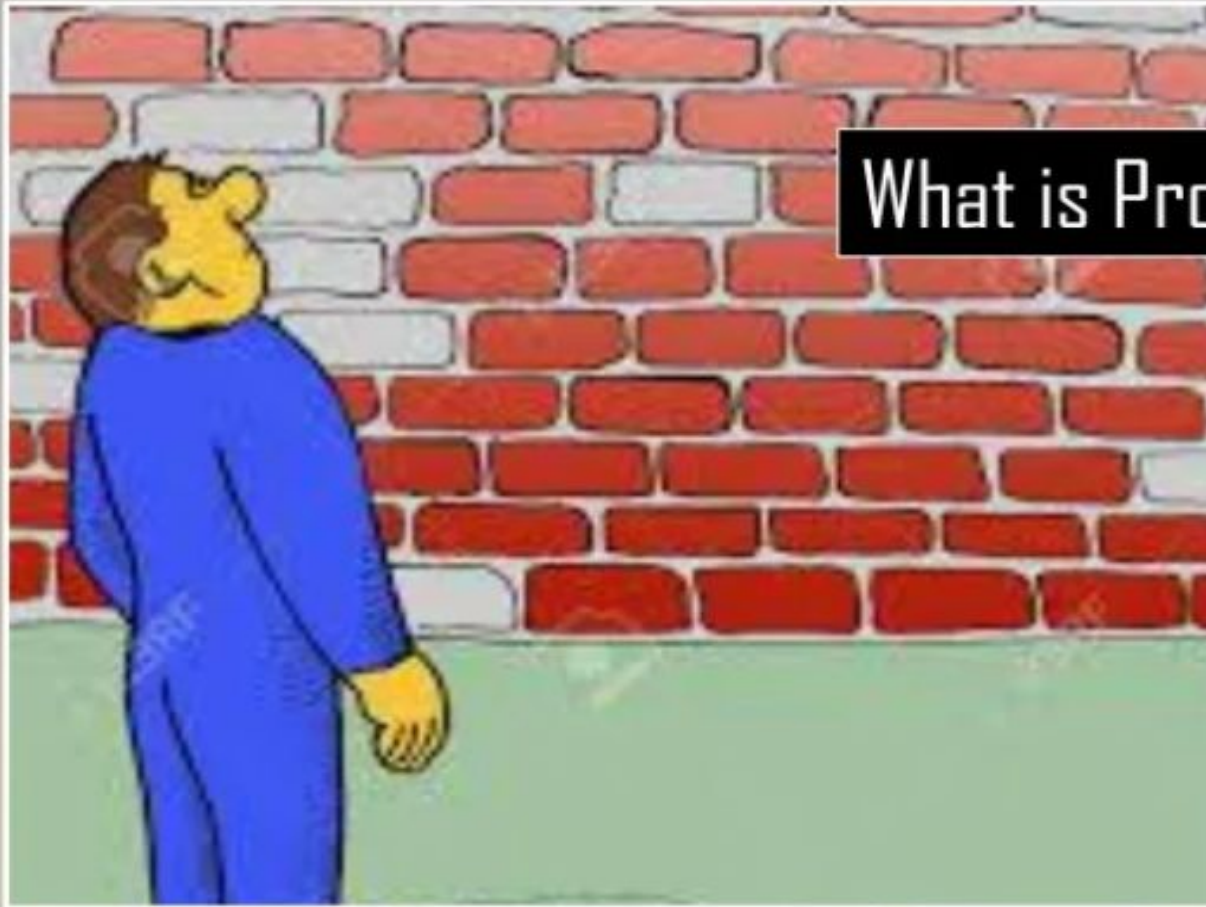
Mr. Kareem Bux

Master's Degree

Factors behind Effective Decision Making

- ❖ Correct Perception
- ❖ Creative and Critical Thinking
- ❖ Accurate Reasoning
- ❖ Accurate Emotional Control
- ❖ Accurate Intuition
- ❖ Previous Experiences

What is Problem Solving

Problem Solving is a Cognitive function which defines a problem; discovers the causes of problem, and executing a solution from among several possible Solutions.
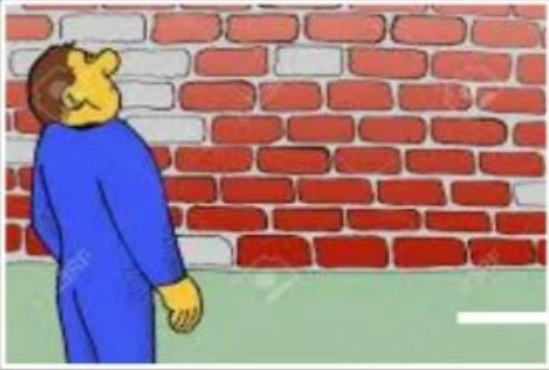
Steps in Problem Solving

❖ Identifying the Problem

❖ Defining the Problem

❖ Forming a Strategy

❖ Organizing Information

❖ Think About Different Solutions

❖ Selecting the Accurate Solution

❖ Review

Problem Solving

- Everybody in this world is faced to some problems are the others there needs and motive that are to be satisfied. For this purpose definite goals or aims are set. In an attempt to realize them one experience obstacles and interference it creates a problem for him needs serious attention and deliberate effort on his part to overcome the obstacles or interference in the attainment of the objectives.

- The meaning and nature of this term is made clearer still through the following definitions.

- Skinner: "Problem Solving is process of overcoming difficulties that appear to interfere with the attainment of goal. It is a procedure of making adjustment in spite of interferences.

Scientific Method:

The Question arises, what is that scientific procedure which is followed in a problem-solving behavior. Let me describe its systematic steps.

- ✓ Problem Awareness
- ✓ Problem Understanding
- ✓ Collection of Relevant Information
- ✓ Formulation of Possible Solution
- ✓ Selection of Proper Solution
- ✓ Verification of Concluded Solution

- Problem Awareness
  - The first step of problem solving behavior is concerned his awareness of the difficulty or problem that need solution.
- Problem Understanding
  - The difficulty or problem felt by the individual should be properly identified by a careful analysis. He should be clear about what exactly is his problem.
- Collection of Relevant Information
  - In this step the individual is required to collect all the relevant information about the problem to all possible sources.
- Formulation of Possible Solution
  - In the light of collected relevant information in nature of his problem one may then engage in some serious cognitive activities to think or the various possibilities for the solution of the one's problem.
- Selection of Proper Solution
  - In the important step all the possible solutions thought of in the previous step are closely analyzed evaluated.
  - One should determine the conclusion that completely satisfied the demands
  - of the problem.
- Verification of Concluded Solution
  - The solution is arrived at or conclusion drawn must be further verified by utilizing is in the solution of the various likewise problems.

► **Think of REAL TIME SCENERIO and implement Thinking Reasoning and PROBLEM solving technique.**