LEARNING

Meaning and Definition of Learning

Learning can be defined as the permanent change in behavior due to direct and indirect experience.

It means change in behavior, attitude due to education and training, practice and experience.

It is completed by acquisition of knowledge and skills, which are relatively permanent.

❖ Learning

- Learning involve change in behaviour.
- The behavioral change must be relatively permanent
- Any temporary change in behaviour is due to fatigue or any reaon is not a part of learning

➢ Fix these things about learning

- **It is permanent change**
- **Learning is an organisation**
- **Learning is a form of experience**
- **Learning is continuous process**
- **Learning is development**

Factors Affecting Learning

- **Motivation** – The encouragement, the support one gets to complete a task, to achieve a goal is known as motivation. It is a very important aspect of learning as it acts gives us a positive energy to complete a task. **Example** – The coach motivated the players to win the match.

- **Practice** – We all know that "Practice makes us perfect". In order to be a perfectionist or at least complete the task, it is very important to practice what we have learnt. **Example** – We can be a programmer only when we execute the codes we have written.

Factors Influence Learning

- Role of parenting
- Education
- Job training

- **Environment** – We learn from our surroundings, we learn from the people around us. They are of two types of environment – internal and external. **Example** – A child when at home learns from the family which is an internal environment, but when sent to school it is an external environment.
- **Mental group** – It describes our thinking by the group of people we chose to hang out with. In simple words, we make a group of those people with whom we connect. It can be for a social cause where people with the same mentality work in the same direction. **Example** – A group of readers, travelers, etc.

Learning Theories

- Conditioning theory
- Cognitive Learning theory
- Social Learning Theory

Conditioning theory

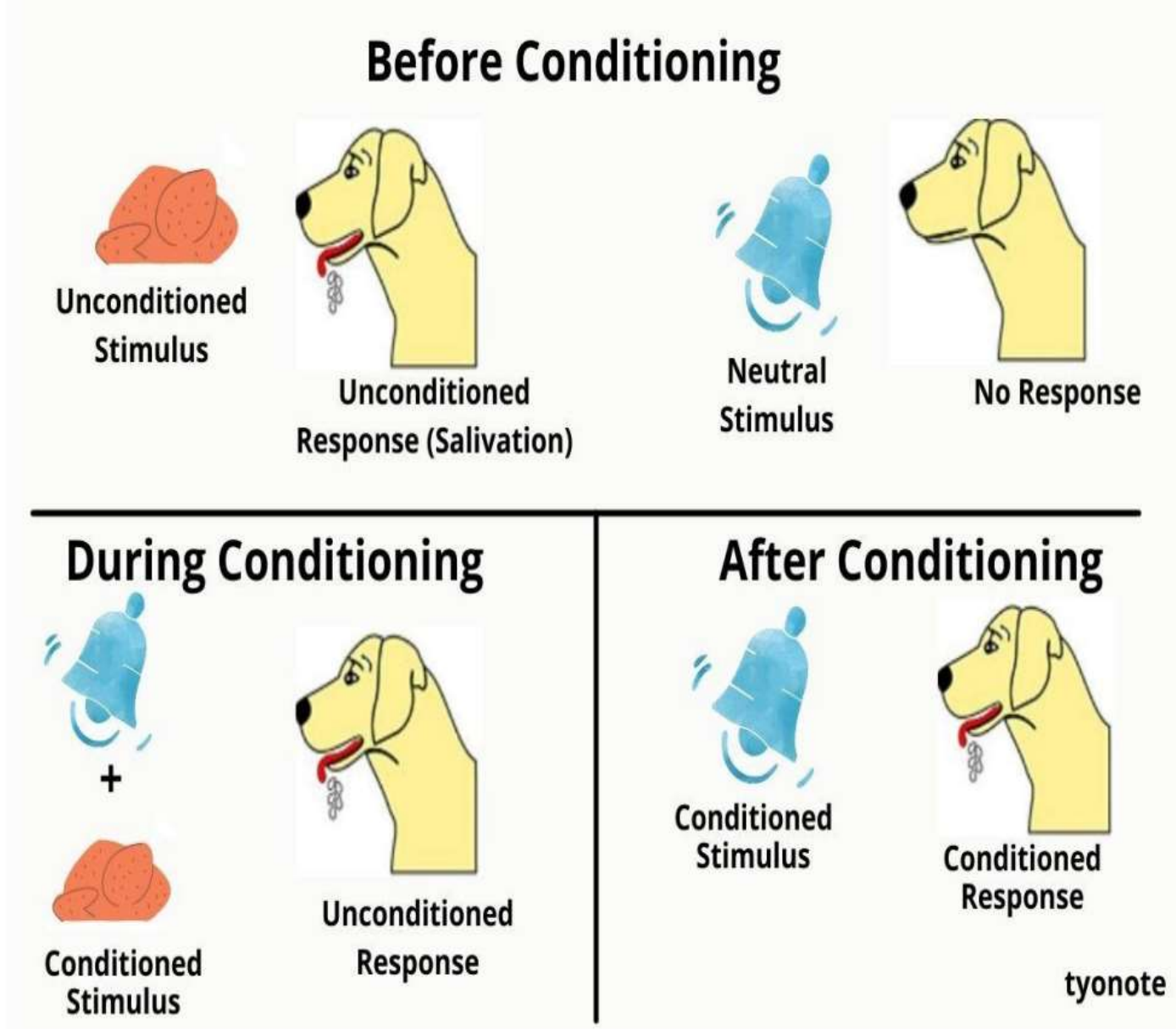
- Also called as connectionist or behavioral theory
- Conditioning is the process in which an ineffective object or situation becomes so much effective that it makes hidden response apparent
- It has two main theories-:
  1. Classical conditioning
  2. Operant conditioning

- **Classical conditioning**
  - ✓The Classical conditioning occurs when a conditioned stimulus is coupled with an unconditioned stimulus.
  - ✓It states that behaviour is learned by repetitive association between a stimulus and response (S-R)
  - ✓4 elements are always present in classical conditioning

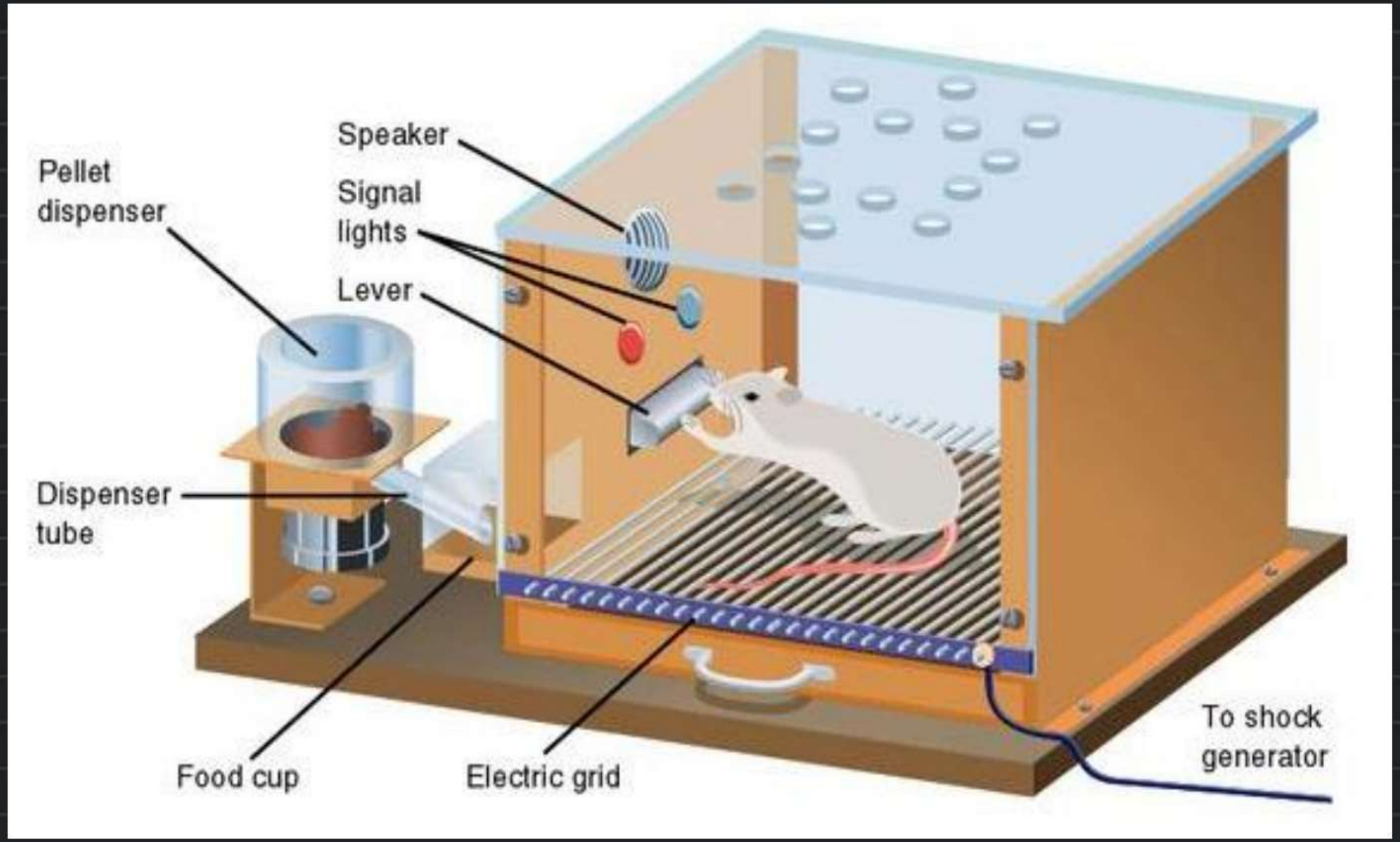
I. Unconditional Stimulus (US)
II. Unconditional Response (UR)
III. Conditional Stimulus (CS)
IV. Conditional Response (CR)

- Before Conditioning
  - Meat (US) → Salivation (UR)
  - Bell (neutral stimulus) → No response
- During Conditioning
  - Meat(US) + Bell (CS) → Salivation (UR)
- After Conditioning
  - Bell (CS) → Salivation (CR)

This work was shown by Ivan Pavlov experimented on Dog



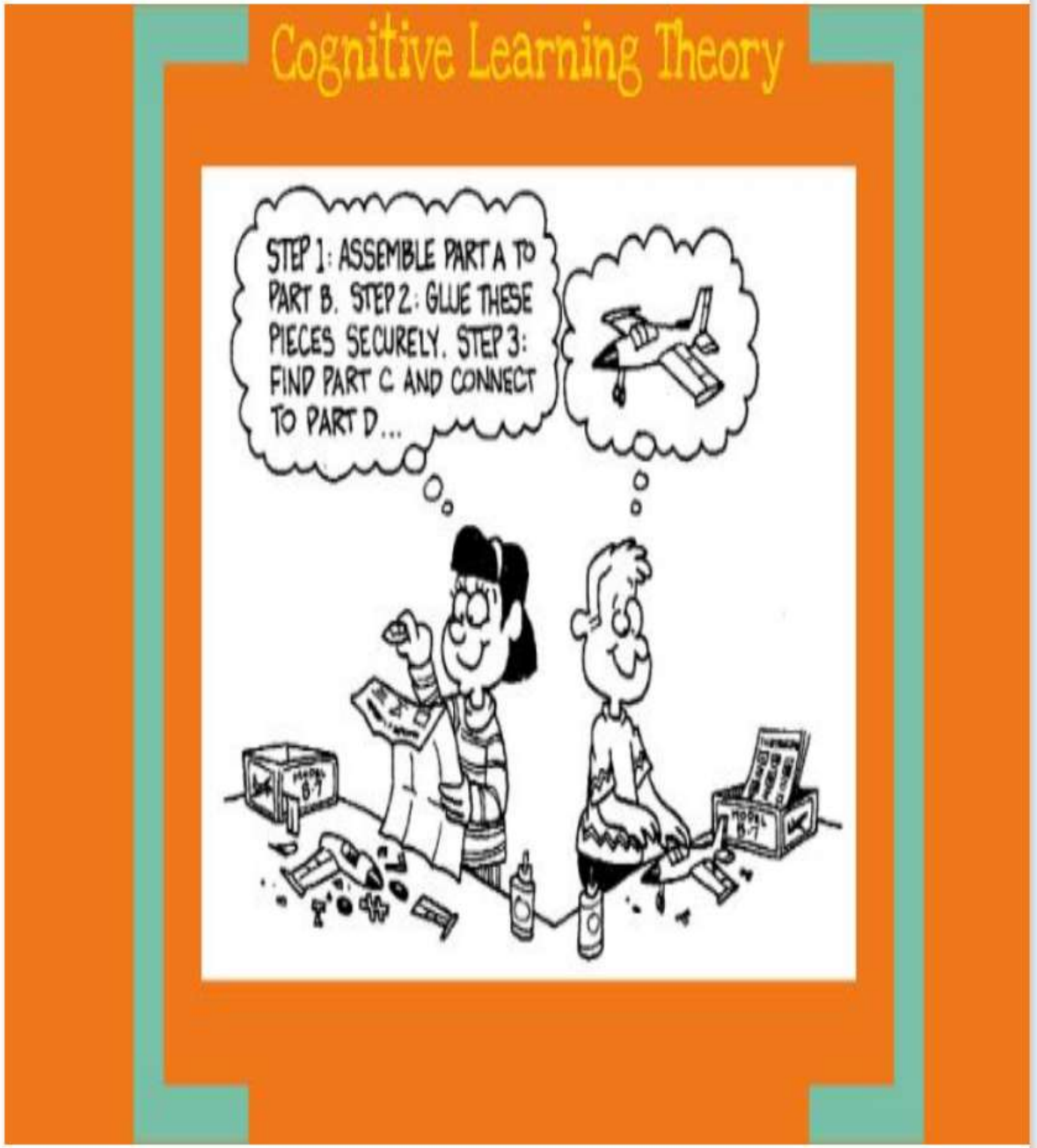
- **Operant Conditioning Theory**
  - ✓Operant conditioning theory is also known as instrumental conditioning.
  - ✓This theory is a learning process in which behavior is sensitive to, or controlled by its outcomes.
  - ✓This conditioning suggests that people emit Reponses that are rewarded and will not response that are either not rewarded or punished.
  - ✓Let's take an example of a child. A child may learn to open a box to get the candy inside, or learn to avoid touching a hot stove.
  - ✓It presupposes that human being explore their environment and act upon it.


Speaker
Pellet dispenser
Signal lights
Lever
Dispenser tube
Food cup
Electric grid
To shock generator

- The basic principle of learning new behaviour involves relationship between 3 elements-:
  - Stimulus situation
  - Behaviour response to the situation
  - Consequences of the response to the person or situation
- Example-:
- You want to pass NET exam and do not want to fail is stimulus situation
- You take online subscription, started studying hard, referring books and taking live lessons from unacademy is behavioral response to the situation
- You cleared NET is consequences of the response to the person or situation.

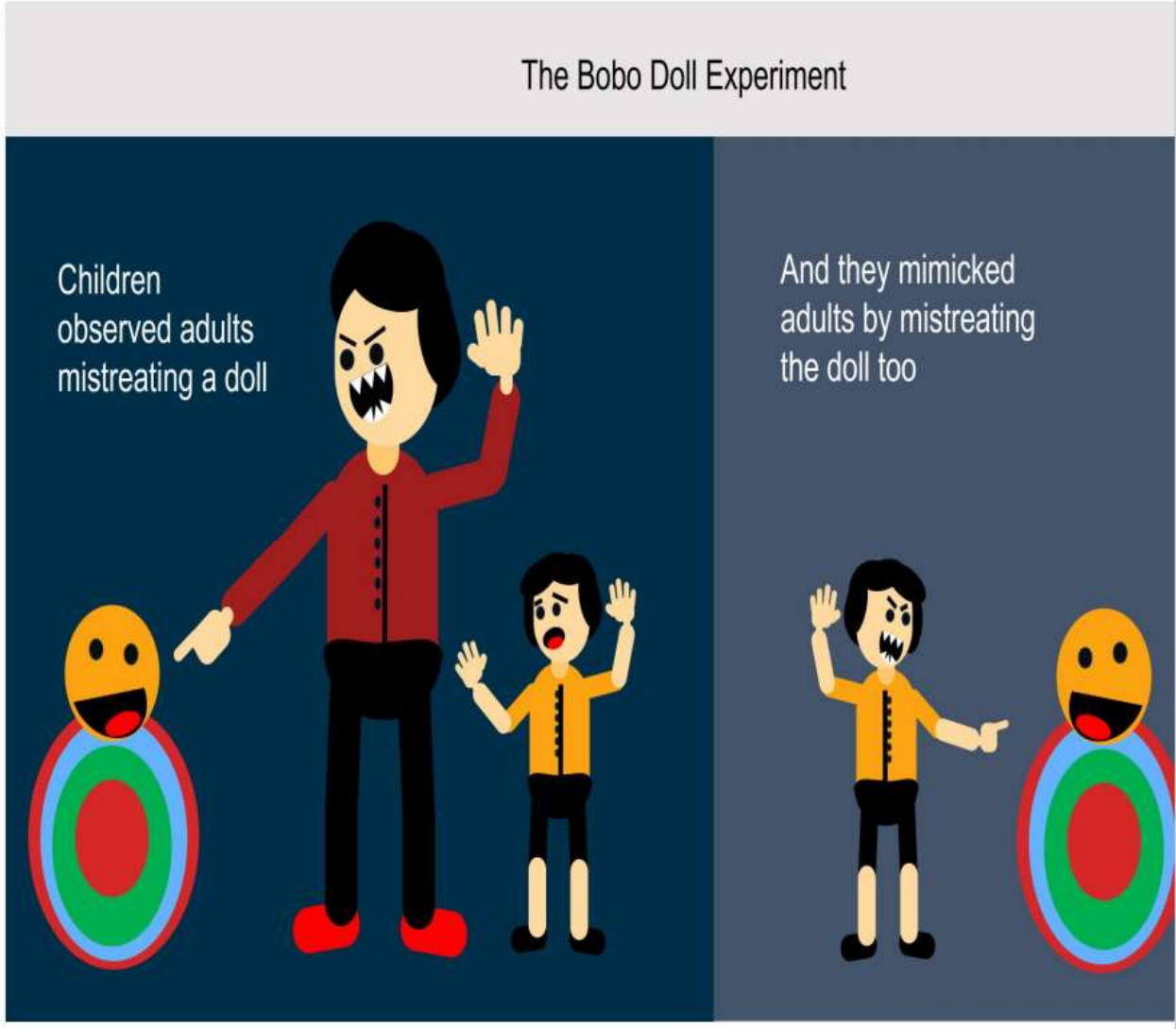
Cognitive Learning theory

- Base don cognitive model of human behaviour
- Work done by Tolman to develop this theory
- The cognitive approach is emphasis the positive and free-will aspects of human behaviour
- Cognition refers to an individuals idea, thought, knowledge, interpretations and understanding about himself and his environment.

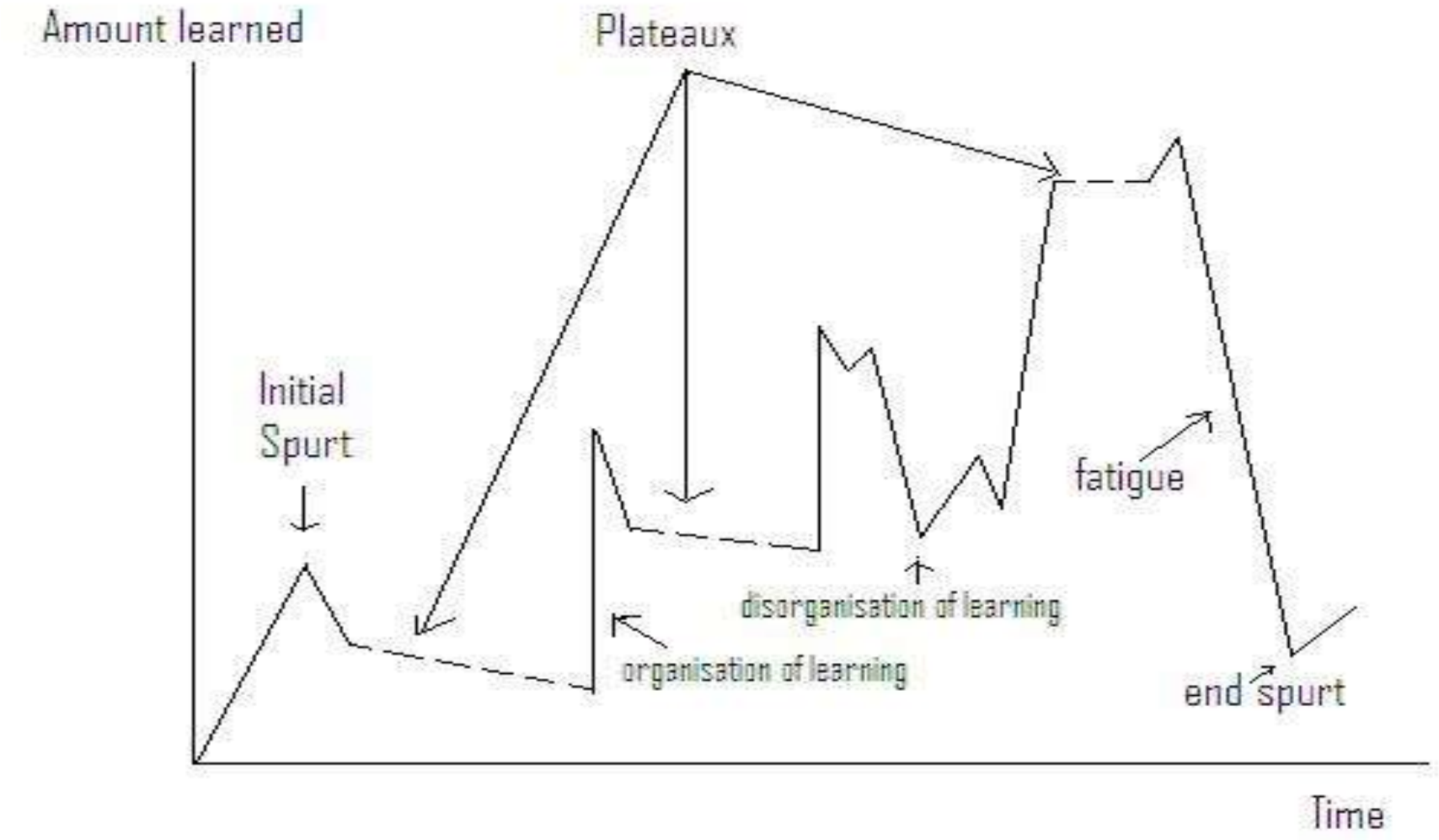


Social Learning Theory

- It is a mix of behavioristic and cognitive concepts
- It emphasis the integrative nature of cognitive, behavioral and environmental determinants
- This theory say that essentially there involves observational learning.
- Learning does not result from discrete stimulus-response-consequence connections, instead, learning takes through imitating, i.e., observing others



Learning Curve



Learning Curve

- A highly useful **learning concept** which is valid for a wide range of situation is the **organizational learning curve**, a diagrammatic presentation of the amount learned in relation to time. A typical **learning curve** will show on the Y-axis the amount learnt and the X-axis the passage of time.
- **Initial Spurt :** At the beginning, it is natural that the rate of learning exhibits spurt. Usually, the graph levels off at some stage, indicating that maximum performance has been achieved. Apparently at the beginning of the learning process, the subject is highly motivated and seems to exhibit a significant surge of effort. Many experienced trainers exploit this initial spurt by selecting the most important items to be communicated and presenting them as a package to the students at the beginning of the training unit. In many ways, it is possible to exemplify the initial spurt with the aphorism “the first step is the best step”

Learning Curve

- **Learning plateau:** At some point in the learning process there is a flattening off in terms of the improvement, a plateau. Frequently, the process of learning is marked by discontinuities and involves escalating from one plateau to another. Most learners are only too aware of the experience of finding themselves on a plateau, which manifests itself in the feeling that they are never going to get anywhere.
- Jumping from one plateau to another is called **organization of learning**. Organization of learning is achieved when the learner discovers a new and more effective method of performing particular tasks. For example, when he learns to apply calculus to solve problems of business.

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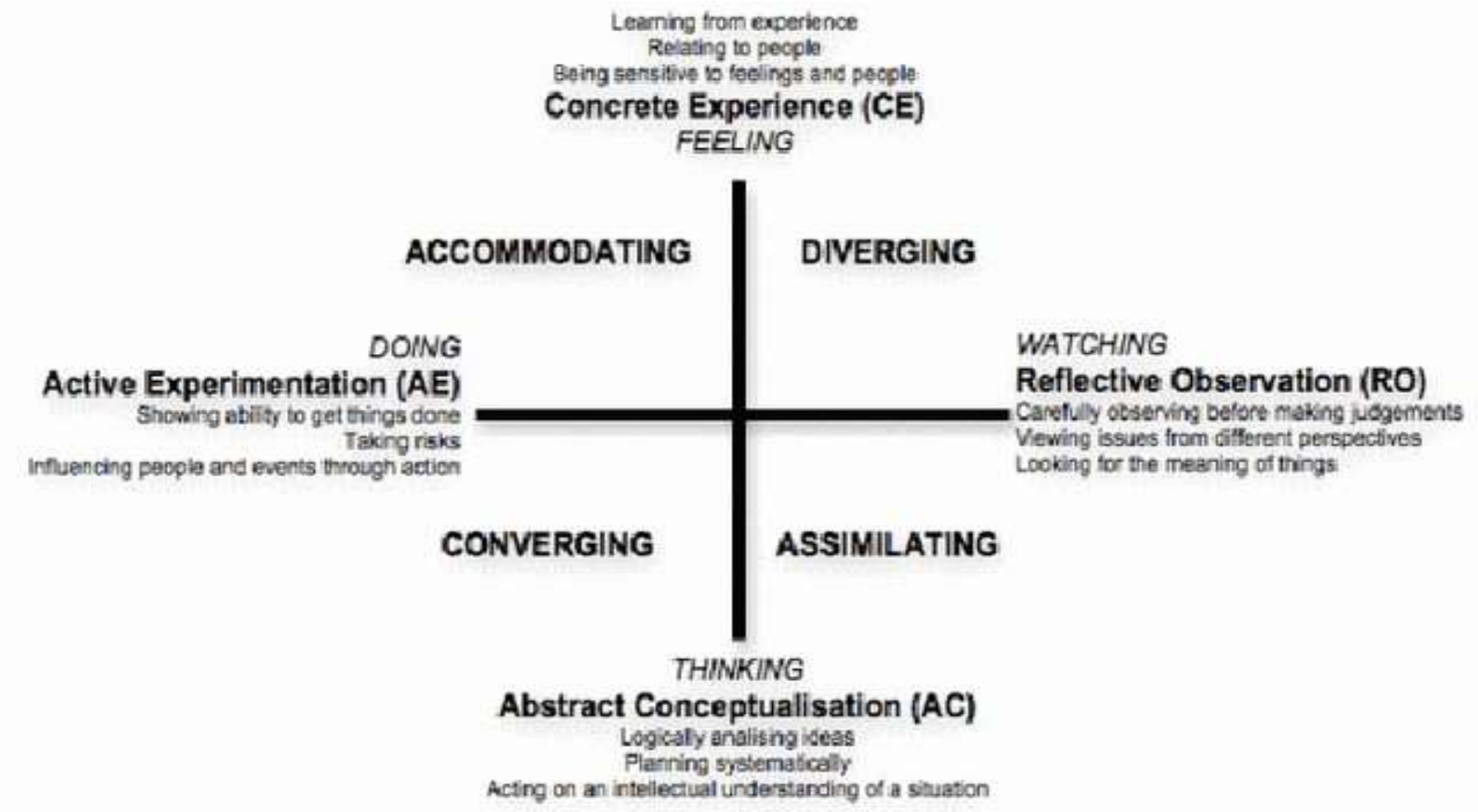
- **Disorganization of learning** is an actual fall off in performance. This arises when the subject has to choose between alternative methods of tackling a task.
- **End Spurt:** The last characteristic of the organizational learning curve is the **end spurt**. The end spurt is preceded by fatigue which is likely to set in with the passage of time. When the training season draws nearer to an end and the subject realizes this, there occurs resurgence of interest and effort to learn more. This revival is called the end spurt.

Learning Styles



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- **Concrete Experience** – the learner encounters a concrete experience. This might be a new experience or situation, or a reinterpretation of existing experience in the light of new concepts.
- **Reflective Observation of the New Experience** – the learner reflects on the new experience in the light of their existing knowledge. Of particular importance are any inconsistencies between experience and understanding.
- **Abstract Conceptualization** – reflection gives rise to a new idea, or a modification of an existing abstract concept (the person has learned from their experience).
- **Active Experimentation** – the newly created or modified concepts give rise to experimentation. The learner applies their idea(s) to the world around them to see what happens.

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	Active Experimentation (Doing)	**Reflective Observation (Watching)**
Concrete Experience (Feeling)	Accommodating (CE/AE)	Diverging (CE/RO)
Abstract Conceptualization (Thinking)	Converging (AC/AE)	Assimilating (AC/RO)

Diverging (feeling and watching – CE/RO)

- These people are able to look at things from different perspectives. They are sensitive. They prefer to watch rather than do, tending to gather information and use imagination to solve problems. They are best at viewing concrete situations from several different viewpoints.
- Kolb called this style “diverging” because these people perform better in situations that require ideas-generation, for example, brainstorming. People with a diverging learning style have broad cultural interests and like to gather information.
- They are interested in people, tend to be imaginative and emotional, and tend to be strong in the arts. People with the diverging style prefer to work in groups, to listen with an open mind and to receive personal feedback.

Assimilating (watching and thinking – AC/RO)

- The assimilating learning preference involves a concise, logical approach. Ideas and concepts are more important than people.
- These people require good, clear explanations rather than a practical opportunity. They excel at understanding wide-ranging information and organizing it in a clear, logical format.
- People with an assimilating learning style are less focused on people and more interested in ideas and abstract concepts. People with this style are more attracted to logically sound theories than approaches based on practical value.
- This learning style is important for effectiveness in information and science careers. In formal learning situations, people with this style prefer readings, lectures, exploring analytical models, and having time to think things through.

Converging (doing and thinking – AC/AE)

- People with a converging learning style can solve problems and will use their learning to find solutions to practical issues. They prefer technical tasks, and are less concerned with people and interpersonal aspects.
- People with a converging learning style are best at finding practical uses for ideas and theories. They can solve problems and make decisions by finding solutions to questions and problems.
- People with a converging learning style are more attracted to technical tasks and problems than social or interpersonal issues. A converging learning style enables specialist and technology abilities.
- People with a converging style like to experiment with new ideas, to simulate, and to work with practical applications.

Accommodating (doing and feeling – CE/AE)

- The Accommodating learning style is “hands-on,” and relies on intuition rather than logic. These people use other people’s analysis, and prefer to take a practical, experiential approach. They are attracted to new challenges and experiences, and to carrying out plans.

- They commonly act on “gut” instinct rather than logical analysis. People with an accommodating learning style will tend to rely on others for information than carry out their own analysis. This learning style is prevalent within the general population.