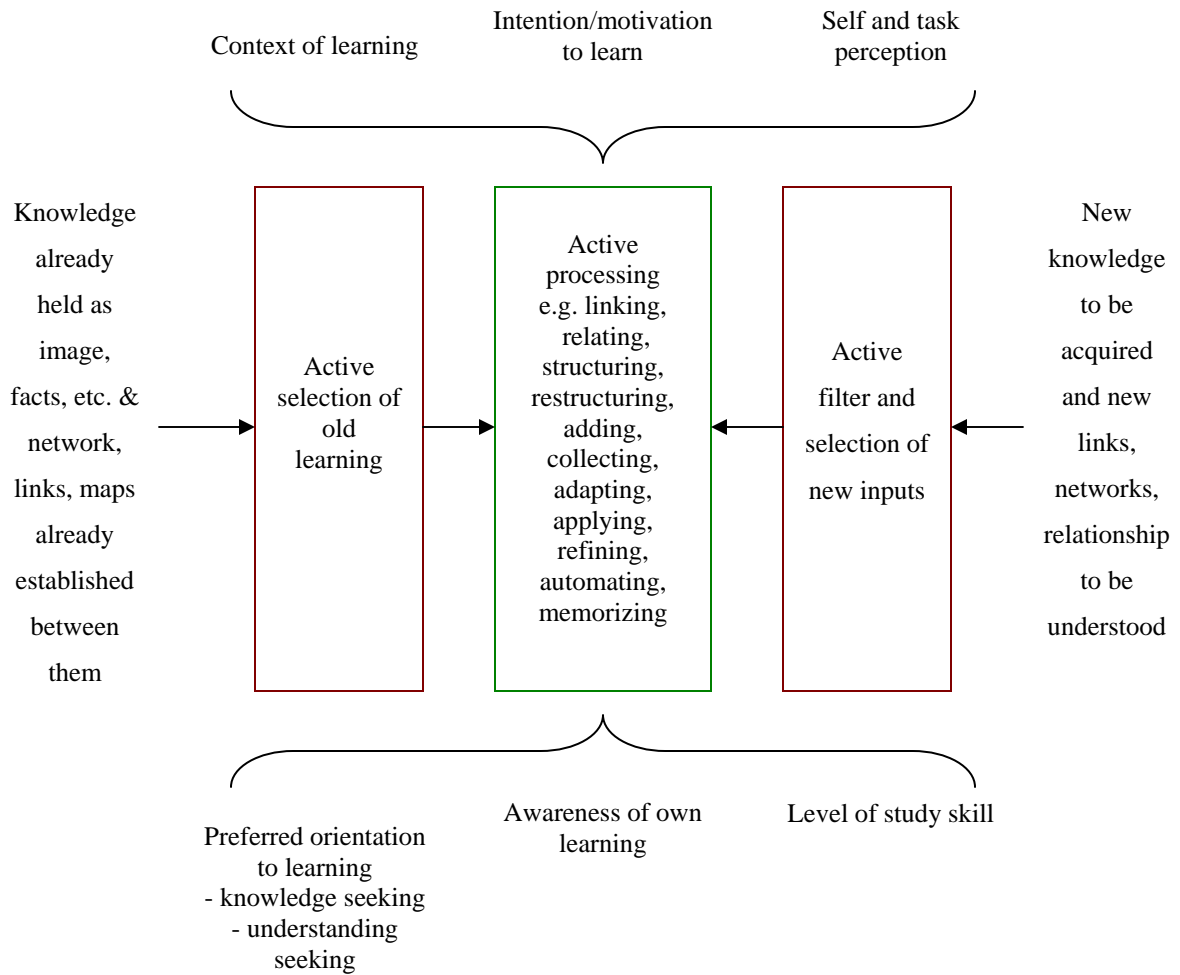


LEARNING THEORIES

1. Introduction:

- Learning is the process of acquiring knowledge. Knowledge may be acquired and stored merely for information or may help in developing any skill or technique of doing various things in life
- Some of the primary and biological needs for existence and security are met by instinctive behaviour which is difficult to understand.
 - For example a baby which was growing as a foetus in the womb knows how to suck the breast of the mother as soon as it is born and put the breast of the mother
 - How did the baby know that it would get milk by sucking?
 - The nervous mechanism is able to receive stimuli and impulse and perception enables the acquisition of knowledge which in other words is learning
- It must be appreciated that learning does not stop with acquiring information
- It is active process of transformation of ideas, translation of meaning, formation of attitudes, skills and values
- As far as behaviour is concerned and learning for behaviour, the first requisite is that a person wants to learn and improve
- Unless there is an inherent desire on the part of the individual or group to acquire some knowledge for the sake of change of behaviour, a learning situation will not obtain

A model of student learning



2. Learning theories:

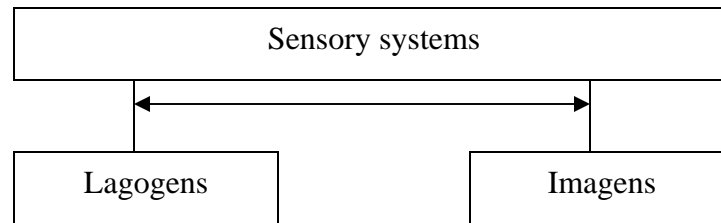
- According to **Marton** (1995), two distinctive approaches to study:
 - Deep level
 - Active search for meaning
 - Deep approach
 - It is associated with deeper understanding
 - Even after a five-week interval the user of this approach had a better recall of detail than those who used the surface approach.

- Surface level
 - Try to memorize those parts of the article which they think they might be questioned on
- According to **Fransson** (1977), there are four categories study
 - Deep active
 - Deep passive
 - Surface active
 - Surface passive
- **Pask's** two strategies
 - Serialist
 - Look closely at details and the steps in the argument.
 - They tend to make little use of analogies, metaphors or illustrators
 - It appear to be sophisticated surface approach
 - Holist
 - Begins with broad focus
 - They try to see the task globally
 - Relate it to previous knowledge and use analogies, illustrators and other explanatory devices
- According to Conditional response theory (**E. Thordike**)
 - Learning is a result of association forming between stimuli (S) and response (R). Such association or habits become strengthen or weakened by the nature and frequency of the S-R pairing
 - Three law of learning
 - Law of readiness
 - A learner willing and want to learn
 - Law of exercise
 - In order to strengthen their knowledge or skill, learner have to practice regularly with their knowledge or skill that they acquired

- Law of effect
 - The knowledge or skill must have benefit to learner, and then they will learn it.
- **Kurt Lewin** theory of learning
 - Learning means doing something better than before
 - Four stages in learning
 - Change in cognitive structures
 - Change in motivation
 - Change in group belongingness or ideology
 - Acquirement of the voluntary control of the musculature
- Operant conditioning (**B.F. Skinner**)
 - Changes in behaviour are the result of an individual's response to events that occur in the environment
 - When a particular Stimulus-Response pattern is reinforced the individual is conditioned to respond
 - A reinforcement is anything that strengthens the desired response
 - E.g. experiment on the mouse which it must learn how to open the door of the cage in order to get the foods
- **Kalman** theory of learning
 - Three types of learning
 - Learning by compliance
 - It means that learning by copying or following other order e.g. a doctor prescribes medication to a patient. The patient will learn how to take the medication
 - Learning by imitation
 - It means that learning by following other behaviour or example without understanding it e.g. a kid following his father behavior.
 - Internalization

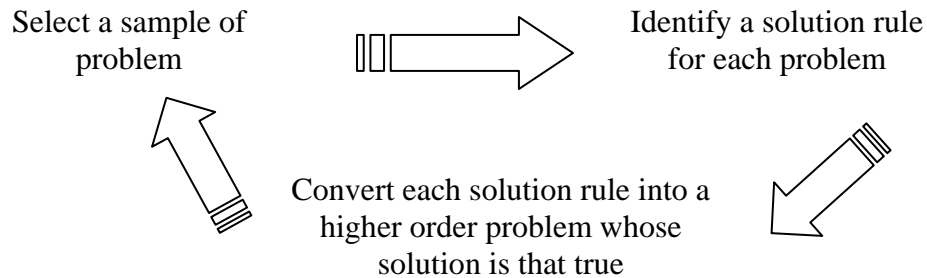
- It means the learner wants to learn and the learning desire came from his own.
- Constructivism theory (**J. Bruner**)
 - Learning is an active process in which learners construct new ideas or concepts based upon their current/past knowledge
 - Four major aspects of the theory
 - Predisposition toward learning
 - The ways in which a body of knowledge can be structured so that it can be most readily grasped by the learner
 - The most effective sequences of material
 - The nature and pacing of rewards and punishment
- Contiguity theory (**E. Guthrie**)
 - All learning is a consequences of association between a particular stimulus and response
 - Rewards or punishment play no role in learning since they occur after the association between stimulus and response has been made
 - Forgetting is due to interference rather than the passage of time; stimuli become associated with new response
 - It means that the new stimulus are the factor associate with the forgetting not the time
- Drive reduction theory (**C. Hull**)
 - Drive reduction or need satisfaction plays a much more important role in behaviour than other
 - Hull's postulation
 - Organism possess a hierarchy of needs which are aroused under conditions of stimulation and drive
 - Habit strength increase with activities that are associated with primary or secondary reinforcement
- Dual coding theory (**A. Paivio**, 1986)

- Human cognition is unique in that it has become specialized for dealing simultaneously with language and with nonverbal objects and events



- Adult learning (**K. P. Cross**)
 - Factors of adult learning
 - Personal characteristics: aging, life phase, developmental stage
 - Situational characteristics: part time vs. full time, voluntary vs. compulsory
- Elaboration theory (**C. Reigeluth**)
 - Instruction should be organized in increasing order of complexity for optimal learning
- Social learning theory (**A. Bandura, 1977**)
 - Bandura emphasizes the importance of observing and modeling the behaviours, attitudes, and emotional reaction of others
- Stimulus sampling theory (**W. Estes, 1950**)
 - The theory suggest that a particular stimulus-responses association is learned on a single trial
 - On any given learning trial, a number of different responses can be made but only the portion that are effective form association
 - Thus, learned responses are a sample of all possible stimulus elements experienced
- Structural learning theory (**J. Scandura, 1977**)
 - What is learned are rules which consist of a domain, range, and procedures

- Steps in structural analysis



- Subsumption theory (**D. Ausubel**)
 - Ausubel theory is concerned with how individuals learn large amounts of meaningful material from verbal/textual presentations in school setting
 - According to Ausubel, learning is based upon the kinds of superordinate, representational, and combinatorial process that occur during the reception of information
- Symbol system (**G. Solomon**, 1977)
 - The symbol system theory is intended to explain the effects of media on learning
 - 1st – they highlight different aspects of content
 - 2nd – they vary with respect to ease of recoding
 - 3rd – specific coding elements can save the learner from difficulty mental elaborations
 - 4th – symbol system differ with respect to how much processing they demand or allow
 - 5th – symbol system differ with respect to the kinds of mental process they call on for recoding and elaboration
- Triarchic theory (**R. Sternberg**, 1977)
 - Consist of three sub theory
 - The componential subtheory

- Outlines the structure and mechanism that underlie behaviour
- The experiential subtheory
 - Proposes intelligent behaviour be interpreted along the continuum of experience
- The contextual subtheory
 - Specifies that intelligent behaviour is defined by the Sociocultural context
- Condition of learning (**R. Gagne**)
 - Five major categories of learning
 - Verbal information
 - Intellectual skills
 - Cognitive strategies
 - Motor skills
 - Attitudes
 - Nine instructional events and corresponding cognitive process
 - Gaining attention (reception)
 - Informing learner of objectives (expectancy)
 - Stimulating recall of prior learning (retrieval)
 - Presenting the stimulus (selective perception)
 - Providing learning guidance (semantic encoding)
 - Elicit performance (responding)
 - Providing feedback (reinforcement)
 - Assessing performance (retrieval)
 - Enhancing retention and transfer (generalization)

