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Lecture Title

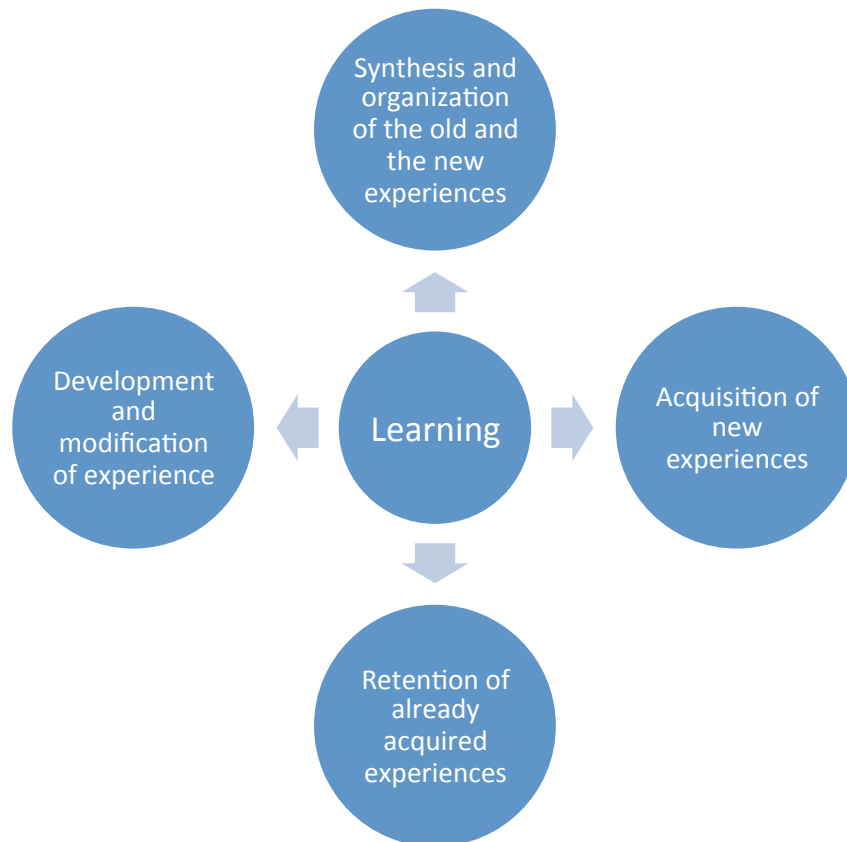
Learning

Hello viewers. Welcome to the bachelor course of Physical Education. Today we'll discuss about Learning: its characteristics, methods and various factors that affect learning.

Learning occupies a very important place in our life. It is the basic factor in education. Most of what we do or do not do is influenced by what we learn and how we learn it. Learning, therefore, provides a key to the structure of our personality and behavior.

Every organism is born with a certain kind of instinctive behavior. But during their life time, men and animals come across certain situations to which an instinctive response is either impossible or inappropriate. Therefore, in addition to the unlearned instinctive behavior, they have to learn to respond to certain situations. In other words, the organism has to modify the innate responses to adjust himself to the changing conditions. All these changes and modifications in the behavior of an individual is called learning.

The process of learning involves



- Acquisition of new experiences
- Retention of already acquired experiences in the form impressions, engrams and skills
- Development and modification of experience
- Synthesis and organization of the old and the new experiences resulting in some novel pattern.

In words of Munn, “learning is more or less permanent incremental modification of behavior which results from activity, special training or observation.”

Skinner viewed learning as “both acquisition and retention.”

According to Gardner Murphy, “The term learning covers every modification in behavior to meet environmental requirements.”

Henry P. Smith defines Learning as the acquisition of behavior or the strengthening or weakening of old behavior as a result of experience.”

According to Woodworth, “any activity can be called learning so far as it develops the individual (in any respect, good or bad) and makes him alter behaviors and experiences different from what they would otherwise have been.”

Pressey, Robinson and Horrocks viewed learning as an episode in which a motivated individual attempts to adapt his behavior so as to succeed in a situation which he perceives as requiring action to attain a goal.

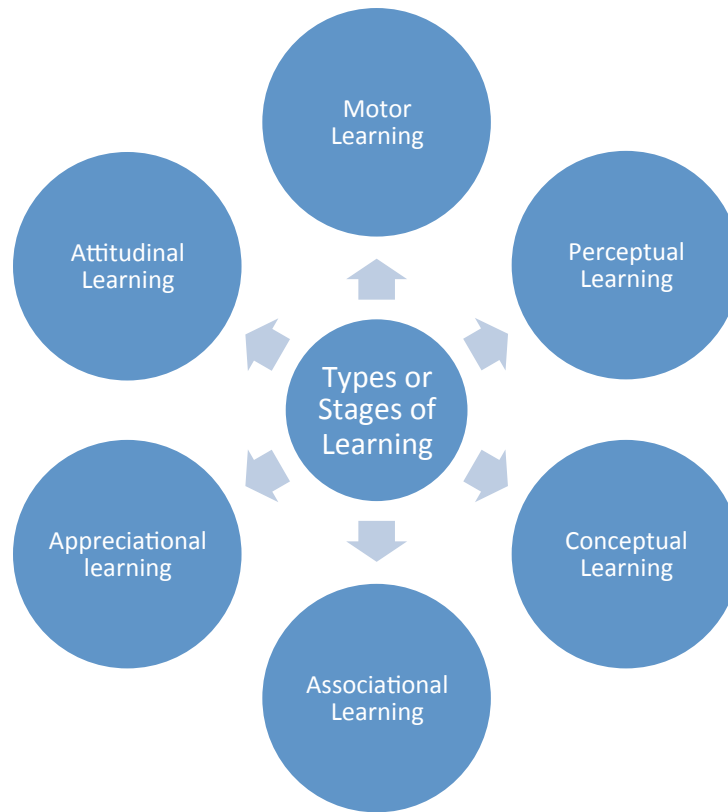
In words of Crow and Crow, “Learning is the acquisition of habits, knowledge and attitudes. It involves new ways of doing things, and it operates in an individual’s attempts to overcome obstacles or to adjust to new situations. It represents progressive changes in the behavior and enables him to satisfy interests to gain goals.”

Hilgard defines learning as “the process by which an activity originates or is changed through reaching to an encountered situation, provided that the characteristics of the changes in activity cannot be explained on the basis of native responses, tendencies, maturation or temporary states of the organism (for example, fatigue, drugs, etc.)

2. The Above Definitions Reveal The Following Facts:

- Learning is a process and not a product.
- It involves all those experiences and training of an individual (right from birth) which helps him to produce changes in his behavior.
- Learning leads to changes in behavior but this does not necessarily mean that these changes always bring about improvement or positive development. One has an equal chance to drift to the negative side of human personality.
- Instead of change in existing behavior or acquisition of new behavior, learning may also result in discontinuance or abandonment of existing behavior. Though it is referred to as unlearning, actually unlearning is also a learning process.
- Learning prepares an individual for any adaptation or adjustment that may be necessary.
- As maintained by Crow and Crow, learning involves new ways of doing things but there is no limit to adopting these ways and means. All learning does not take place in the same manner. Therefore, learning as a process is of different types and involves different methods.
- As maintained by Hilgard, the concept of learning excludes changes in behavior on the basis of native response tendencies like instincts and reflexes etc. Instinctive and species specific programs cannot be termed as learned behavior. Similarly, reflexes, the innate involuntary responses to stimulation e.g., blinking at bright lights and the infant’s sucking behavior, cannot be attributed to learning.
- Learning does not include changes in behavior on account of maturation, fatigue, illness or drugs, etc.

There are different TYPES OF LEARNING



We will now take up these types one by one.

First we have

1. Motor learning or Skill Learning: when the child is young, his mental capacities are not fully developed so he learns motor activities like simple movements, eye-hand coordination, walking, running, etc. At this stage, most of the learning is learning by imitation.

Next is the

2. Perceptual Learning: As the child's mind develops, he starts making percepts, i.e. he can give meaning to his sensations. For example he starts differentiating objects, people, and sound around him meaningfully.

Third type of learning is

3. Conceptual Learning: As the development proceeds, individuals start learning with the help of concepts. He learns to differentiate and classify objects on the basis of similarities and dissimilarities. Before the stage of concept formation for example child calls every flying bird as "chiddi" or 'tota'. When individual starts making concepts, he can differentiate between sparrow, parrot and pigeon, etc.

Next is

4. Associative Learning: After the stage of conceptual learning, associative learning takes place. Child starts learning by making associations. For example when child visits doctor for the first time, he behave normally. But when doctor injects him, he feels pain. He

associates pain with the doctor. When next time parents take the child to doctor, he starts crying because he has associated pain with doctor.

5. Appreciational learning: when child matures, his percepts and concepts becomes strong, he starts appreciating things, this learning is called appreciational learning.
6. Attitudinal Learning: this type of learning pertains to the formation of attitudes. Attitudes are generalized dispositions for certain particular ideas, things or persons.

well students these are the type of learning which are also known as stages of learning because child undergo these learning experiences in a particular sequence ,for example – first of all child learns the motor skills, then perceptual learning takes place. After perceptual learning, conceptual learning, associative learning, appreciational learning and attitudinal learning takes place respectively.

Based on our discussion, now we will have an appraisal of various CHARACTERISTICS explaining the nature OF LEARNING

3. Learning

1. Learning is progressive change in behavior. Learning is a cradle to grave process. It continues from birth till death.
2. Learning is universal. Every creature that lives, learns. Individuals belonging to every strata of society learn. In human beings, it is not restricted to any particular age, sex, race or culture.



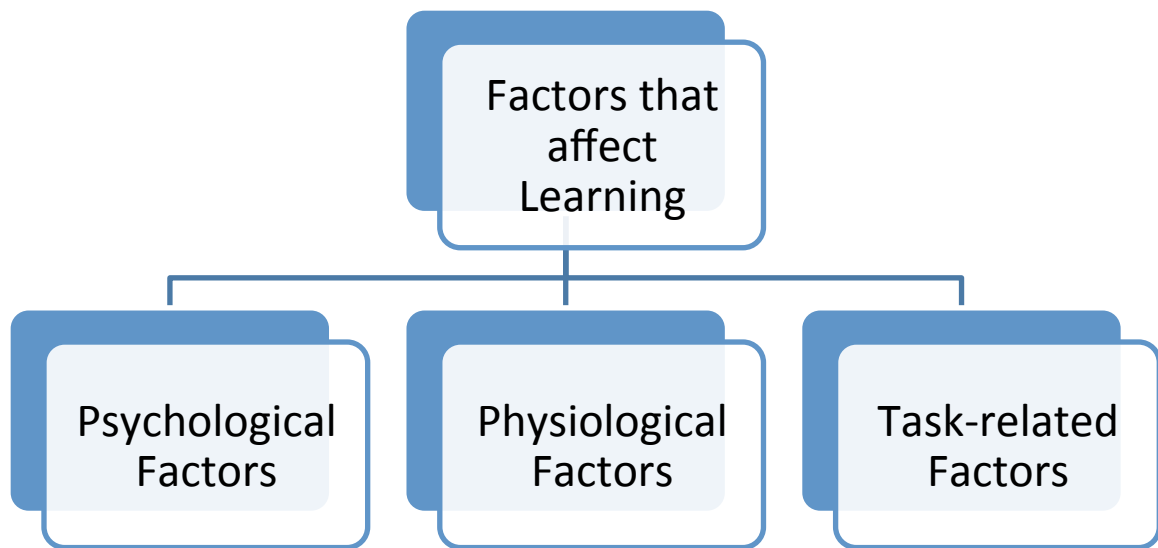
3. Learning takes place on all the three aspects of human behavior i.e. conative, cognitive and affective.
4. Learning is transferable i.e. learning in one situation have carry over effect in other situations which can be positive, negative and zero.
5. Learning is purposive and goal directed. Whenever individual learns something, there is some motive behind it. In case there is no purpose, there would hardly be any learning
6. Learning is motivated by adjustment. Individual learns with the motive to adjust. For example, when a player is going to participate in an International event, he would learn English so that he can manage to interact with organizers and participants from different countries.

7. Learning is a process and not a product. Behind every learning, there is some motive which motivates the individual to do efforts. If there is some motive, the goal is set up. After the goal has been set up, adjustment on the part of the individual begins. Gradually, the changes in behavior takes place and these changes in behavior are then stabilized.
8. Learning is the response of the whole individual to the total situation i.e. individual reacts to the total learning situation as a whole.
9. Learning is an active and creative process. In most of the situations learning requires active participation of the learner.

These characteristics explain nature of learning. We shall now discuss various FACTORS that AFFECTS LEARNING

Learning is determined by various factors which are categorized as

- Psychological Factors
- Physiological factors
- Task Related Factors



Now we will take up these factors one by one. First of all we will discuss

4. Psychological Factors

1. Psychological Factors: there are various psychological factors that affect learning. Important of which are:

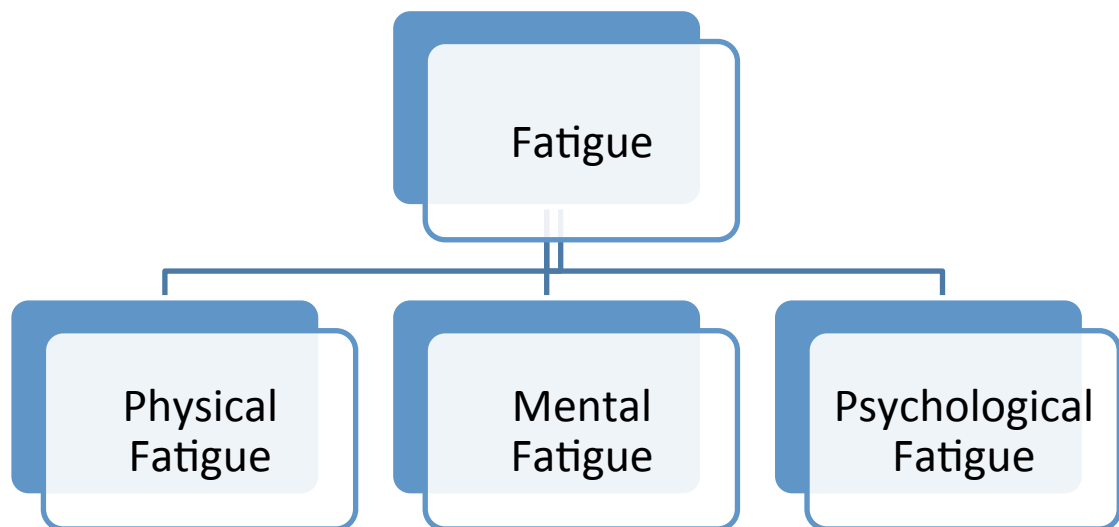


- a) **Maturation:** Maturation is the process of attaining full development of all abilities and capacities like emotional maturity, social maturity, and physiological maturity. Other things being equal, amount of learning occurring in any situation depends upon maturity level of the learner. Though maturity is an important determinant of learning, but changes brought about as a result of maturity are not labelled as learning.

- b) **Motivation:** Motivation is very important determinant of learning. A learner or an athlete who is highly motivated to learn will acquire new knowledge or skill more quickly than the one who is not properly motivated. Without proper motivation, we cannot think of effective learning.

5. Practice

- c) **Practice:** Repetitive practice and repeated learning are very important determinants of learning. For example to acquire physical skills, like diving, gymnastics, pole-vaulting, and fundamentals of team games and mental skills like improving handwriting skills, language proficiency, repetitive practice is must.
- d) **Interest:** When a learner is motivated to learn a particular task, he will take more interest in that particular task and hence better the learning. So parents, teachers and coaches must arouse interest before putting the learner into the learning situation.
- e) **Fatigue:** Fatigue also affects learning. Fatigue is decrement in capacity resulting from continuous work without any rest-pause. Learning will not be effective when an individual is fatigued. Fatigue can be of three types-

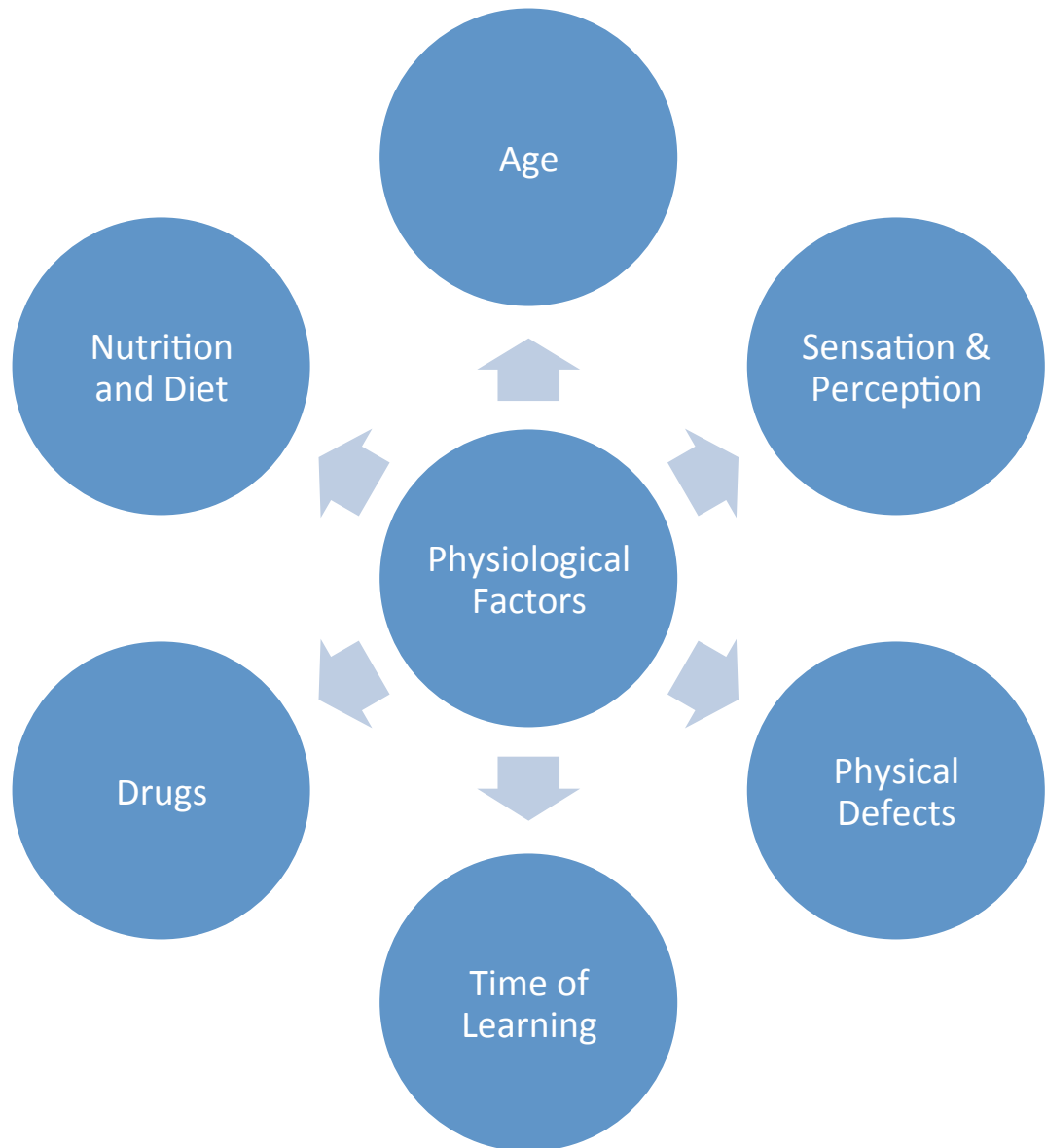


- **Physical fatigue:** Physical fatigue is decrement in physical capacity which is attributed to the presence of toxic waste products resulting from activity and lack of oxygen, accumulation of lactic acid in the muscles.
- **Mental Fatigue:** Mental Fatigue is also known as boredom. Prolonged mental work may result in loss of efficiency. The remedy of this fatigue is change in work or recreation.
- **Psychological Fatigue:** Psychological fatigue is a mere feeling of fatigue. There is no decrement in efficiency, neither physical nor mental but it is attributable to boredom, lack of interest in the learning material etc.

As we know fatigue of either kind adversely affects learning so parents, teachers and coaches must try to develop strategies to do away with fatigue so that learner learns efficiently and proficiently.

- f) **Mental Health:** A mentally healthy individual i.e. the one who is free from anxiety, frustrations will learn better. On the other hand, individuals with poor mental health will find difficulty in mastering very simple tasks or the ones that interests them.
- g) **Emotions:** Emotions are the stirred up states of the individuals. Too much emotional arousal has hazardous effect on learning.
- h) **Capacity:** Capacity of the learner is also an important determinant of learning because different individuals have different capacity to learn. Gifted children learn more quickly and easily than average children. Parents, teachers and coaches must take into consideration the learning ability of the individual while assigning learning task to them.
- i) **Mental Set:** Mental Set is individual's inclination of mind at a particular moment. When individual is mentally set to learn particular learning material, he will learn quickly but when individual is not mentally set to learn a particular thing, learning will be less efficient.
- j) **Readiness:** Readiness is the mental preparedness to learn. When the learner is ready to learn, he will learn quickly. If he is not ready to learn, he will find even the simplest tasks very hard to learn.
- k) **Level of Aspiration:** Level of aspiration is what an individual aspires to do. Higher the level of aspiration, better will be the learning

2) **Physiological Factors:** Physiological factors also play a central role in learning. We will now discuss few important physiological factors.

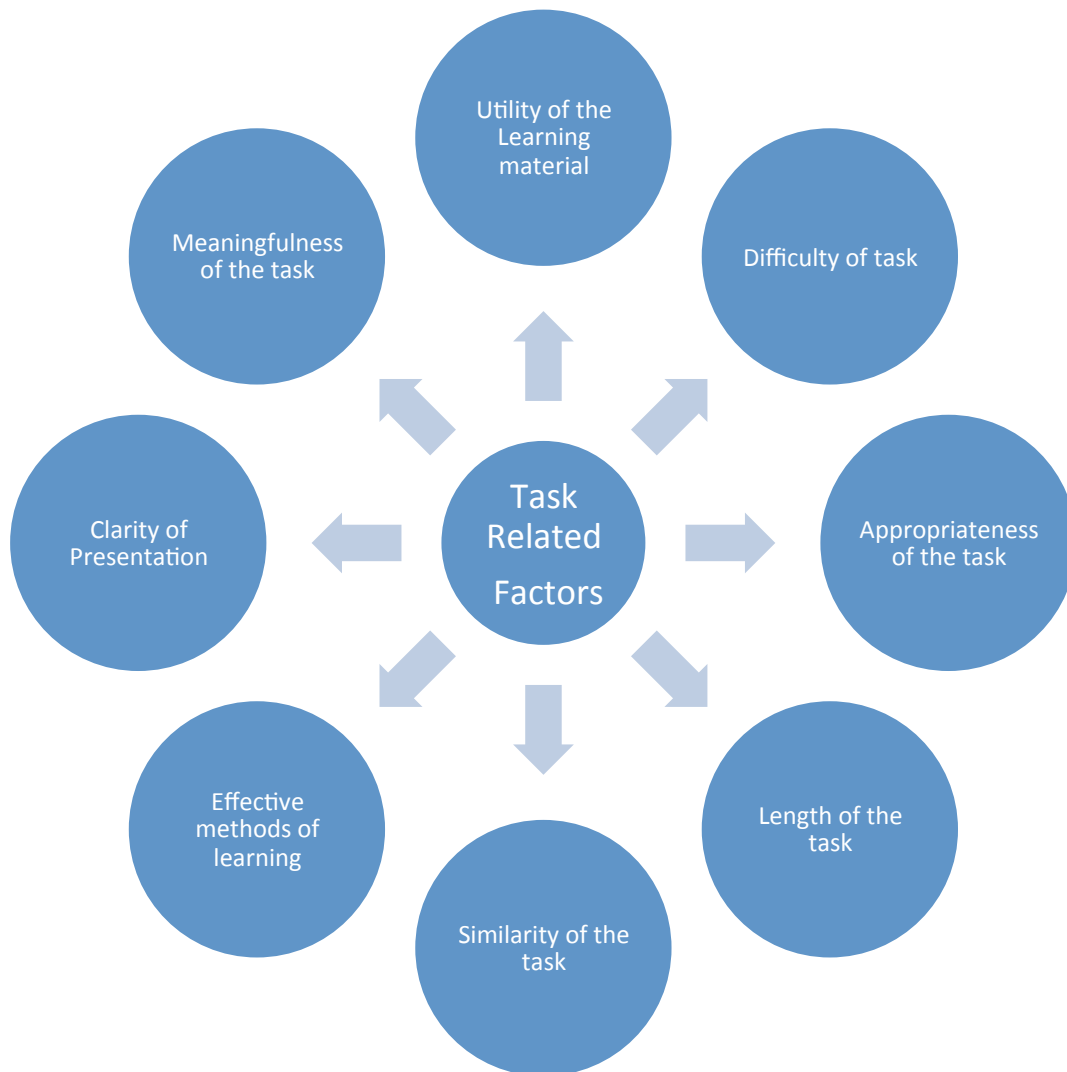


- i. Age: As already discussed learning is a cradle to grave process but ability to learn is affected by age. Learner learns quickly in early years. Learning becomes slow with age. It may be due to lack of interest and curiosity to learn. Otherwise age itself is not an important determinant of learning.
- ii. Sensations and Perceptions: Sensations and Perceptions affect learning. Individuals with sharp sensations and logical perception learn quickly. Faulty perception adversely affects learning
- iii. Physical Defects: Physical defects which may be biological or accidental have negative effect in learning. For example a hearing impaired individuals or visually impaired individuals find it hard to keep pace with learning due to their handicaps.
- iv. Time of Learning: Time of Learning plays a very important role in learning. Early hours of the day are very good for learning because mind and body of an individual are fresh at that time which increases efficiency and proficiency of

learner. Day hours are very poor for learning because individual is tired at that time but bed time is very good for retention purposes because individual sleeps after that. There are less chances of interference and therefore learning traces are better retained.

- v. Drugs: The effect of drugs on learning is a controversial issue. In the beginning, the drug addicts may show increase in efficiency of learning. In general, prolonged indulgence in drugs is unfavorable to the learning process.
- vi. Nutrition and Diet: Nutrition of the learner also determines learning. Poor food affects the health of the child which may affect the learning efficiency and proficiency of the learner. Poor diet and nutrition for the learners of physical education have more detrimental effect on their learning because it decreases their physical capacity. Like healthy diets promotes learning whereas spicy and heavy food adversely affects learning of an individuals.

3) Task Related Factors: there are various characteristics of task which have detrimental effect on Learning. Important of these are:



a) Utility of the Learning material: The learning material which has some utility to the learner is better learned as compared to the material which has no utility for the learner. So, mentors must try to highlight the utility of the material to be learned.

b) Difficulty of task: Difficult tasks are more time consuming. Most of the children are discouraged by the difficulty of the task. More difficult the task is, more time consuming it is and there is greater probability of committing error.

c) Appropriateness of the task: Appropriateness of the task facilitates learning. More appropriate the task is, better is the learning. To make learning more effective, the subject matter or content should be appropriate to the age and maturity level of the individual.

d) Length of the task: Length of the task is directly proportional to learning i.e. the longer the task is, the more difficult it is to learn. It takes more time to learn a difficult task as compared to the simpler task. Individual sometime loses interest in the task when the task is too lengthy which makes it difficult to learn.

e) Similarity of the task: It becomes easy and effective to learn a task with similar elements. It can be quickly followed and learned by the learners. Similarity of the task makes it easier to grasp and learn.

f) Effective methods of learning: Learning is influenced by methods of teaching. Better and effective methods of teaching are essential for learning. Mostly poor learning is a result of faulty methods of teaching. A good method of teaching is the one which makes the content and subject matter clear even to the slow learners. A good method of teaching makes learning more effective.

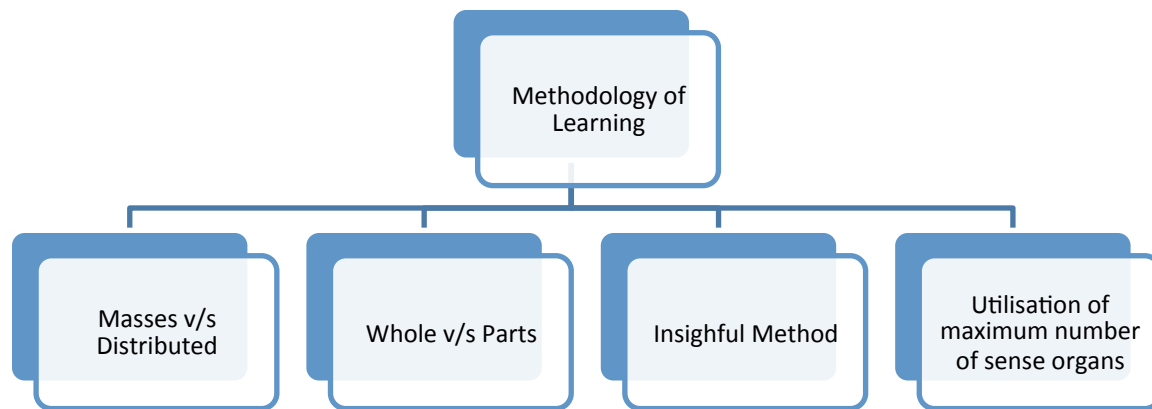
g) Clarity of Presentation: The clarity with which the subject matter is presented influences learning. Subject matter must be presented clearly before the students so that they understand it properly. More clearly the subject matter is presented, better is the learning. To make learning more effective, the content should be presented in clear terms and if possible audio visual switching must be used.

h) Meaningfulness of the task: Meaningful materials are better learned as compared to learning materials having no meaning. It becomes the responsibility of the coaches and the teachers to make learning content meaningful.

To sum up we can say that these are important task related factors which determine learning.

Next we will take up METHODOLOGY OF LEARNING

Methods employed in learning are another very important category of variables which determines learning. If the selection of method is made carefully, keeping in view the level of learner, kind of learning material, learning will be more effective. Today will discuss few important methods which affect the efficiency of learning.



1. **Massed versus Distributed practice:** when the practice is massed i.e. all the amount of time to be learnt involves only one interval at a time, this is referred to as massed practice. When practice takes place over several intervals, we called this distributed practice. Massed practice is considered superior where much of the material is likely to be forgotten over long time interval or when the solution of the problem involves variability in response. Undoubtedly, the distributed practice yields greater learning and retention then massed practice but there are certain cases only the mass practice will do good, so it becomes the responsibility of teacher and coaches to judiciously select when to employ a massed practice and when to employ distributed practice.

2. **Whole vs part methods:** certain material like a poem of reasonable length will be better learnt if it is learnt as a whole. If we try to break the learning experience learner will find it difficult to memorize, but there are certain material which must be learned in parts to get desirable results. for example-acquiring the skills of typewriting and learning of meaning less material such as nonsense syllables. It is advisable to apply the whole method where there is logical unity or continuity in the material when there is no unity in the whole matter, divide the matter into logical parts and use part method on the logical units.

3. **Insightful method:** Insightful methods of learning are where individual learns the learning material insightfully instead of mere cramming. When learner learns with insightful method, learning is very easy because leaner can link new learning with past i.e. learner can profit by transfer of training and correlates the learning in one area to the other. So the teachers and coaches must stress upon insightful methods of learning and discourage rote learning.

4. **Utilization of maximum number of sense organs:** Sense organs are gateway to knowledge. Learning becomes more economical and profitable, if the learner utilizes maximum sense organs like the sense of sight, hearing, etc. in a learning process. So it is advisable that we should encourage maximum utilization of sense organs during learning.

To conclude, we can say that learning is any change in behavior of an individual brought about as a result of experience and training. It is determined by number of factors, the proper understanding and application of which can make the learning more effective.

That's all for the today's lecture.

Thank You