Teaching Learning Structure and Teaching Tactics

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Abstract:
Institutions of higher learning across the nation are responding to social, political, economic, social and technological pressures to be more responsive to students' needs and more concerned about how well students are prepared to assume future societal roles. Faculty are already feeling the pressure to lecture less, to make learning environments more interactive, to integrate technology into the learning experience, and to use collaborative learning strategies when appropriate. In this way how teachers sustain the students in class rooms? It's a big question for us in the world of Globalization and Technology. Hence, the teacher must play his vital or essential role in 21st century education.

Keywords: *Education, Role, Tactics, Teaching-learning*

1. Introduction

The biggest challenge before a teacher is the presentation of a lesson. If this presentation is effective, students can reach the goals of life by acquisition of knowledge and if the teacher is unsuccessful in his presentation, it is impossible to reach the educational objectives. Therefore, how to reach is the biggest problem before a teacher. Three terminologies are used with reference to the problem of how to teach.

Method of teaching is directly related to the presentation of the lesson. Which of teaching a teacher should use depends on the nature of the subject. And the tact of the teacher. There are four methods of presenting the subject matter.

1. *Telling Method; Lecture method, Discussion method, Storytelling method and so on.*
2. *Doing Method; Project method, Problem solving method, Textbook method and so on.*
3. *Visual Method; Demonstration method, Supervised study method and so on.*
4. *Mental Method; Inductive, Deductive, Analysis, Synthesis method etc.*

2. Structure of Learning

Various terms are used for conditions of learning varieties of learning. Conditions of learning and types of learning. The term is given by Robert M. Gagne.

Robert M. Gagne (1965) believes that learning cannot be explained comprehensively with the help of learning theories alone. He argued that learning theories are the generalization of experimental learning conditions based on the observations which are not based on measurement

and most of the experiments on learning have been conducted on animals (rats, cats ,and dogs etc.) thus, learning structures are basic to understand the concept of learning.

Gagne assumes that simple behavior requires some pre requisites. There is continue of learning conditions and behaviors.

Eight different types of situations have been identified in which human beings learns. These sets of operations or conditions which change to capabilities of the learners are brought about.

Robert M. Gagne distinguishes 8 varieties of learning as follows

1. Signal learning
2. Stimulus-response learning
3. Chain learning
4. Verbal association learning
5. Discrimination learning
6. Concept learning
7. Rule learning
8. Problem solving

In programmed learning strategy there is great need for presenting the subject matter under these 8 conditions or structure of learning.

The implication is the 8 corresponding kinds of the changes in the nervous system which need to be identified and ultimately accounted for. Each of these may require different pre-requisites for their initial states or different structure.

Every task by very definition, must process unique structure or organization. I.K.Davies recognizes five basic learning structures out of eight classes of Gagne learning conditions as these are useful and meaningful to the teacher learner:

1. Signal structure
2. Chain structure
3. Multiple discrimination structure
4. Concept structure
5. Principles structure

3. Meaning of Teaching Tactics

When teaching is organized, the teacher should, at first, select appropriate teaching tactics .teaching strategies are comprehensive method of teaching. Teaching tactics are more comprehensive than the teaching strategies. A teaching tactics can be used in many teaching strategies. By using one are more teaching tactics in one strategy. The contents can be made easy, precise and under stable. The teaching tactics make the knowledge stable. Hence for the qualitative progress of teaching, teacher use various tactics according to the conditions or learning structures in content analysis, while the subject matter is analyzed it is divided into subparts. Each subpart is divided into various essential elements and these are arranged in a sequence. Each element of the subject matter has its own structure. The teacher selects teaching strategies, tactics and aids on the basis of the structure of each element of the subject matter. It acts as the norm or a criterion in the selection of teaching strategy, tactics and aids. When students has learnt the principle, he should be asked to state the principle in the own words.

Teaching activities are organized to create these learning conditions or structures in hierarchical order to achieve the taxonomy of objectives. The learning structure provides the guidance for preparing instructions and planning of the teaching activities. Thus, teaching acts are closely associated with learning operations.

Table 1
Learning Structure and Teaching Tactics

S.No.	Learning structure	teaching tactics
1	signal-learning	a. Give a stimulus to student and cause him to response. b. Reinforce him for the correct response. Ignore wrong responses. c. Shape his responses towards the mastery behavior. d. Practice the responses.
2	chain-learning	a- Give student a bird's eye view of the chain. b- Establish chain and work forward, work backward. c- Practice the chain.
3	multiple- discrimination learning	a- Make all stimuli and response as distinctive as possible. b- Present all conditions to be discriminated at once. c- Force student to discover discrimination. d- Practice discrimination.
4	concept-learning	a- Make all stimuli and responses as distinctive as possible. b- Present all conditions to be generalized at once. c- Force student to generalize. d- Practice concept.
5	principle –learning	a- Give students a bird's eye view of the principle. b- Establish a chain of concept with work forward or backward. c- Force student to infer to a principle. d- Practice principle.

Table 2
Types of Learning Structure and Teaching Tactics
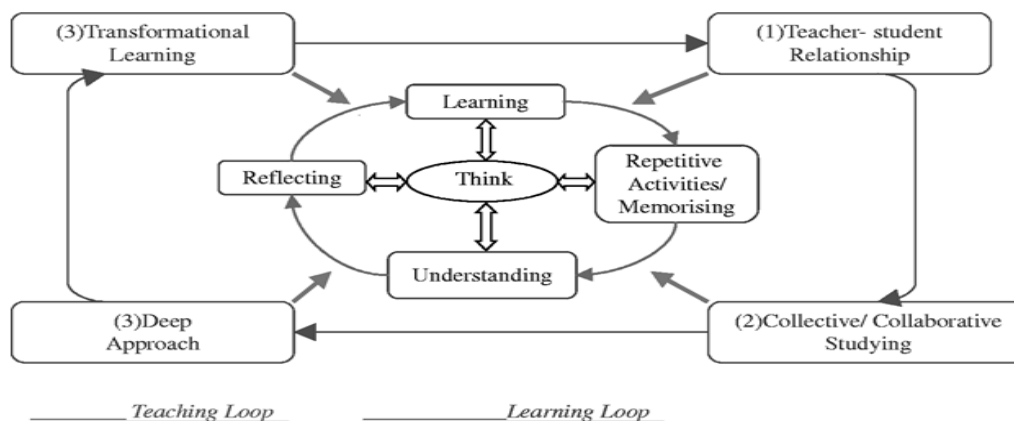
4. Types of Learning Structure and Teaching Tactics
4.1 Signal Learning Structure and Teaching Tactics

It is usually termed as classical conditioning which was developed by a Russian physiologist Pavlov. In classical conditioning , unconditioned stimulus (food) and conditioned stimulus (sound of the bell) are pair together and presented to a dog a number of times with the result that when CS is presented alone , it elicits saliva from the mouth of the dog. This modification of behavior which causes salivation to the sound of the bell is called conditioning.

Signal learning structure is termed as stimulus responses because that is its basis. The main feature of this structure is that the pupils continuously carry on the practice while organizing the stimulus and the responses and this consolidates the relationship of stimulus and response. In learning structure, it is the teacher's duty to compel the pupils first of all responds to the stimulus. They are motivated to give correct answers overlooking their wrong answers. They should be gradually put to the exercise relating to the response through reinforcement. The following teaching tactics should be used in the signal learning structure through….

1. Establishing contiguity
2. constant practice and rehearsal
3. reinforcing the correct response

4.2 Chain-Learning and Teaching Tactics

Chain-learning consists of verbal and motor chaining**.**

4.2.1 Verbal Chaining

Verbal chaining is a matter of connecting together in a sequence to two or more previously learned stimulus responses (S's-R's). The first member or element of the sequence seems firmly tied with the second. E.g.- poem reading, boy and a girl, daddy and mammy, hours and buggy, etc.

4.2.2 Non Verbal Chaining or Motor Chaining

It may be illustrated with the following stimulus response connections in the process of unlocking a door: e.g.-riding bicycle, key in hand, facing the lock, checking the side of the key to be inserted, inserting the key into the lock until the stop of the lock is reached, pushing the door to open it.

It must be remember that for establishing a chain, the individual must be capable of performing the individual links. The chain learning structure is the sequence of facts and symbols learnt earlier.

The following teaching tactics should be used in the chain learning structure.
1 Progressive Chaining: starts from signals, we reach up to end of the chain.
E.g. counting 1 to 100
2 Rote Learning: the chain is acquired by cramming.
E.g. table or counting learning
3 Retrogressive Chaining: we start from the last activity and the reach to the beginning of the chain.
E.g. opposite counting from 100 to 1

Out of these three tactics retrogressive tactics is more effective it functions as reinforcement and makes possible to acquire efficiency in the task. Hence, in the chain learning the teacher should use the se tactics.

5. Multi Discrimination Learning Structure and Teaching Tactics

In this, both the signal and chains are included. In this type of learning, facts are separated from each other and the comparisons are made clear. Pupils should take care of two things.
  A- Stimulus and response should be clear.
  B- All the things should be presented simultaneously. The pupil should proceed from simple to complex, the teacher should use following tactics.
1 Distinctive condition
2 Simultaneous presentations
   a- Make students to see dissimilarities among stimuli.
   b- Categorization on the basis of observed similarities or dissimilarities.
   c- Helping in discrimination one category from another.

6. Concept Learning Structure and Teaching Tactics

In this learning, we deal with the classes of objects as the stimuli. We form concepts by finding properties whish a class of objects shares in common. There after we learn generalization within classes and gradually learn discrimination between classes.
E.g. first we learn about a dog then various classes of dogs and then cats, etc.
  • *Teaching Tactics*
1 Generalization within the classes
2 Discrimination between classes
  A- Distinguishing stimuli as a class on the basis of their similarities.
  B- Providing them their common name
  C- Ask them to give examples.
  D- Distinguishing the m from non example.

8. The 5-Rule or Principle Learning Structure and Teaching Tactics

Learning of principle depends on learning of concept formation and other forms of learning. Principles denote regular relationship among two or more concepts.
  • *Teaching Tactics*
1 Recalling the concept
2 Chaining the concept
  A- Provide examples for the chained response.
  B- Help them generalize and build rule.
  C- Provide opportunity for the application and practicing of the rule.

9. Conclusion

These different types of learning structure and tactics are using during teaching .structures are help in making the teaching planning and makes the sequence channel of two or more stimuli. It helps in learning from simple to complex. It helps the students in divergent thinking. Teaching tactics are enabling to the student as well as teacher. By help of tactics teachers apply many tactics for making effective teaching and students can understand easily.

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