

NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH

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SWAYAM COURSE ON “STUDENT PSYCHOLOGY”

WEEK-1: TEACHING LEARNING PROCESS

INTRODUCTION

NITTTR, Chennai in its 50 years of existence has revolutionized the pedagogical and content training for technical and engineering teachers. We are the pioneers in training teachers on Teaching Methodology, Instruction Design and Delivery and Induction training programmes.

Student Psychology comes under the branch of Educational Psychology. A great deal of research has gone into understanding the psychology behind human learning and instruction. The knowledge of psychology of teaching and learning is very useful in making the teaching learning process interesting, inspirational and effective (Aggarwal, 2018).

An important component of the pedagogical training is providing awareness of the teaching and learning process and the psychology behind it. It is impossible to focus on teacher training without dwelling on the teaching learning process.

Under this topic, we are going to learn the following:

- Definitions of Teaching, Training and Learning
- Basic Teaching Model
- Learning Theories
- Factors Influencing Learning
- Modes of Learning
- Transfer of Learning
- Domains of Learning
- Laws of Learning
- Principles of Teaching and Learning

Understanding the above topics will help you to navigate Instruction delivery smoothly in and outside the classrooms.

The following are the basics a teacher needs to be aware, before embarking on psychology of teaching and learning:

1. Teaching
2. Training
3. Learning

TEACHING

Teaching is defined as an interactive process, primarily involving classroom talk which takes place between teacher and student and occurs during definable activities, thereby resulting in Learning.

WHO IS A TEACHER?

Teaching is an art, science and Skill. Teacher should have the Creative proficiency of an artist, the Precise attitude of a Scientist and Perfected Skill of a Craftsman.

TEACHER ACTIVITIES

General Perception is that the teachers has work only in the classroom and that too, teach the subject content to the students. Teachers engage in lot of activities such as

- Explaining Activities
- Guidance Activities
- Demonstration Activities
- Order maintaining Activities
- Mental Hygiene Activities
- Record Keeping Activities
- Assignment Making Activities
- Curriculum Planning Activities
- Testing and Evaluation Activities

TRAINING

Training is an organized activity aimed at imparting information and/or instructions to improve the recipient's performance or to help him or her attain a required level of knowledge or skill. It is basically of a shorter duration. It is expected to give immediate results. The term training evolved during world war.

LEARNING

Learning is relatively permanent change in behaviour resulting from reinforced practice.

The features of Learning are:

- Learning is process as well as product
- It is the nature or tendency of human beings
- It is the process of mental development- Cognitive, Affective and Psychomotor
- It is both positive and negative
- It is individual
- Learning is creative: Critical thinking

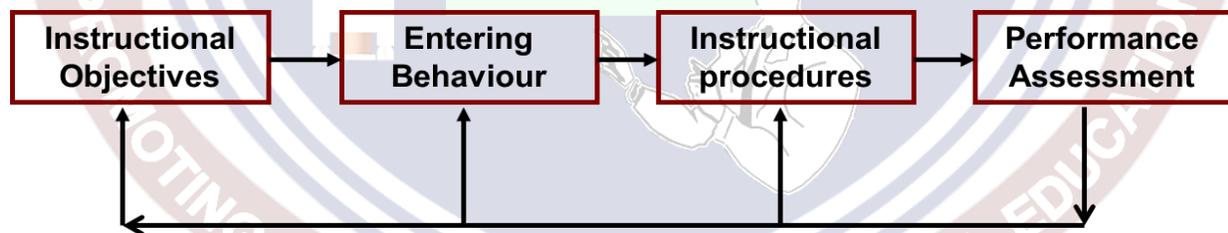
Learning is an active process. We have to actively engage the learners in learning activities if we want them to learn what we intend to teach.

Research shows

- 75% retention rates in learning by doing
- 90% retention rates learning by teaching others

BASIC TEACHING MODEL

Similar to any other model, teaching has several models, one such is the Basic Teaching Model, developed by **Robert Glaser**. The Basic Teaching Model is as shown below:



The Basic Teaching Model has four components. They are explained below:

INSTRUCTIONAL OBJECTIVES

Instructional Objectives are those the student should attain upon completion of a segment of instruction. It implies in simple terms what the student will be able to do at the end of the instruction

ENTERING BEHAVIOUR

Entering Behaviour describes the student's level before the instruction begins. It refers to what the student has previously learned, his intellectual ability and development, his motivational state and certain social and cultural determinants of his learning ability. To be precise, they are human ability, individual differences and readiness.

INSTRUCTIONAL PROCEDURES

Instructional procedures describe the teaching process; Most decisions a teacher makes are on these procedures. Proper management of this component results in those changes in student behaviour which we call Learning or achievement. Instructional Procedure involves four things, 3M and 1P, i.e. Methods, Materials, Media and Planning for the 3M.

PERFORMANCE ASSESSMENT

Performance Assessment consists of the tests and observations used to determine how well the student has achieved the objectives.

If there is an indication that the student has fallen short of mastery or some lesser standard of achievement, one or all of the preceding components of the basic teaching model may require adjustment.

From this module, it concludes that the model is based on teacher activities.

LEARNING THEORIES

There are four well known Learning theories:

1. Behaviourism
2. Cognitivism
3. Constructivism
4. Connectivism

Behaviourism (John B. Watson, Ivan Pavlov, B.F. Skinner)

According to Behaviourism, Learning is a response to external stimuli.

Cognitivism (Gagne, Jerome Bruner, David Ausubel)

According to Cognitivism, Learning is a process of acquiring and storing information.

Constructivism (Jean Piaget, Dewey, Gardner, Albert Bandura)

According to Constructivism, Learning is a process of building an understanding.

Connectivism (George Siemens)

According to Connectivism, Learning is a process of connecting nodes or information sources.

FACTORS INFLUENCING LEARNING

The factors influencing learning are divided into two:

1. Personal factors
2. Environmental factors

PERSONAL FACTORS

The various personal factors are

- Sensation & Perception
- Fatigue & Boredom
- Age & Maturation
- Emotional Conditions
- Needs
- Interests
- Motivation
- Intelligence
- Aptitude
- Attitude

ENVIRONMENTAL FACTORS

The environmental factors are

- Surroundings: Natural, Social and Cultural
- Relationship with Teachers, Parents and Peers
- Media Influence on Learning

MODES OF LEARNING

Children learn in different ways. A few important ones are:

- Learning by Observation
- Learning by Imitation
- Learning by Trial & Error
- Learning by Insight

TRANSFER OF LEARNING

There are three types of transfers. They are:

- POSITIVE
- NEGATIVE
- ZERO

Teachers should ensure that there is no negative transfer.

DOMAINS OF LEARNING

The Domains of Learning as devised by Bloom are:

- COGNITIVE (Theoretical Knowledge)
- AFFECTIVE (Feelings)
- PSYCHOMOTOR (Practical Knowledge)

Teachers should ensure Learning takes place in all the 3 domains.

LAWS OF LEARNING

The Laws of Learning was proposed by Thorndike, an American Psychologist. He conducted an experiment with cats and proposed three laws of Learning. The three laws are

1. Law of Readiness
2. Law of Practice
3. Law of Effect/Reward

PRINCIPLES OF TEACHING AND LEARNING

The principles of teaching and learning to be followed by teachers are as follows:

- Active Participation of the Learner
- Known to Unknown
- Clarity of Objectives
- Knowledge of Results about Performance
- Motivated Learner Learns Most
- Transfer of Learning
- Appealing to Many Senses
- Congenial Atmosphere
- Repetitive Practice
- Learning Under Control of Reward
- Relevant Knowledge

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3. Davies, I.K. (1971). Management of Learning. Berkshire : McGraw Hill
