THORNDIKE'S TRIAL AND ERROR THEORY

THORNDIKE'S CONNECTIONISM

The propounder of trial and theory was famous American psychologist Edward Lee Thorndike. His theory of learning is based on behaviourist principles. All learning according to Thorndike is the formation of bonds or connections between **STIMULUS AND RESPONSE** that is **S-R.**

THORNDIKE'S EXPERIMENT

Thorndike's Experiment is also known as **puzzle box experiment**.

He confined a hungry cat in a box. Outside the box a dish of food was kept. The cat had to pull a string to come out of the box .The cat in the box made several random movements of jumping ,dashing and running to get out of the box. The cat in the last succeeded in pulling the string. The door of the puzzle box opened the cat came out and ate the food. Thorndike promptly put the cat in the box for the next trial. The cat again gave gave a lot of franctic behavior but it soon succeed in pulling the string . Over a series of successive trials the cat became increasingly efficient in pulling the string .Over a series of successive trials, the cat became increasingly efficient in getting out of the box .the number of trials reduced slowly and on subsequent trials Thorndike's cat showed slow gradual and continuous improvement in performance over successive trials. He concluded that learning of the cat in the puzzle box can be explained in terms of formation of connections between S-R (Stimulus and Response).

The experiment by Thorndike emphasized on the presence of following conditions:

- **DRIVE OR MOTIVE**- For any learning according to trial and error theory depends on the presence of Drive here in case of cat it was **HUNGER** which was motivating the cat for various efforts.
- **GOAL**-The goal of the cat was to obtain the **FOOD** so as to satisfy her drive(HUNGER).

- **BLOCKS IN ACHIEVIG GOALS-** The cat was confined in a closed puzzle box so the box acted as a block in achieving her goal which was food placed outside the closed box.

- **RANDOM MOVEMENTS**- The cat in the box has to make several random movements of jumping ,dashing and running to get out of the box and achieve her goal which will help her to satisfy her drive (hunger).

- **SUCCESS BY CHANCE**-.The cat after giving a lot of franctic behavior succeed in pulling the string.

- **SELECTION OF PROPER MOVEMENT-** Over a series of successive trials, the cat became increasingly efficient in getting out of the box.

- **FIXATION-** In the end the cat succeed in opening pulling the there was no error. He concluded that learning of the cat in the puzzle box can be explained in terms of formation of connections between S-R

THORNDIKE'S LAWS OF LEARNING
Based on his theory of trial and error Thorndike gave the following laws of learning.

1. **LAW OF READINESS –** When a modifiable connection is ready to act to do so is satisfying ,when it is not ready to do so it is unsatisfying.
Readiness means a preparation for action . Learning cannot be instilled in an individual unless he prepares himself to begin, if the individual is ready to act or to learn .he/she will learn more quickly and effectively. Readiness or preparedness for a task is half the battle won and if the pupils mind is set on the lesson, he is motivated to master it. if an individual is not

ready to act , he loses race .readiness is dependent both upon maturation and experience of   learner.

CLASS ROOM IMPLICATIONS OF THE LAW

- Teacher must wait till the learner is ready to learn and should give those experiences which help them to enhance the readiness of learners.
- Aptitude test must be given so as to determine the interest of the learners.

2. LAW OF EXERCISE

This law is based on the fact that practice makes a man perfect .Exercise strengthens S-R connection and not practicing weakens the S-R connection.This law has to sub laws.

LAW OF USE- The more frequent a modifiable connection between S-R is made the stronger the connection will be.

LAW OF DISUSE- Other things being equal when a modifiable connection between S-R is not made over a period of time the strength of that connection is weakened.

CLASS ROOM IMPLICATIONS OF THE LAW

The law of exercise is the law of repetition or constant practice or exercise. Practice helps in increasing efficiency and durability of learning .Learning to drive a motor car, a typewriter, singing or memorizing a table or a poem, each needs exercise and repetition of action many times. We re read lessons a number of times to master them. We play a musical tune a number of times to be able to play it accurately and easily.

More and more oppurtunities should be given to the students to use and repeat the knowledge they get in class.

To make the connections for longer period reviews of the learned material is necessary.

Drill strengthens the bond between S-R .In elementary classes it is very important for the learning of tables, spelling and word meanings.

3. LAW OF EFFECT

When a modifiable connection between S-R is made and is accompanied or followed by a satisfying state of affairs that connections strength is increased. When a modifiable connection between S-R is made and is accompanied or followed by a annoying state of affairs that connections strength is decreased.

This law signifies that activities which are accompanied by a feeling of pleasure or satisfaction are more readily and effectively learnt and selected, while those which are not satisfying are eliminated.

CLASS ROOM IMPLICATIONS OF THE LAW

The classroom experiences should be satisfying and pleasant . The teacher must enjoy his teaching work.

Learning experiences must be meaningful and understandable.

The system of rewards and punishments in schools is based on this law.