

Progressive Education Society's
**MODERN COLLEGE OF
ARTS, SCIENCE & COMMERCE
SHIVAJINAGAR, PUNE - 411 005.**

(*Star College Award, DBT, *CPE Status, UGC, *A' Grade, NAAC, *Best College Award, UoP.)

Department of Psychology

Experiment / Test No. : 6

Date : 11/3/2019

Title of the Experiment / Test : Transfer Of Training.

Subject's Name : P.S

Student's Name : Madhura Vivek Pawar

Class : MACT Roll No. : 1865120

sdh

Signature of the Teacher

Transfer of Training.

- STATEMENT OF THE PROBLEM :-

To demonstrate transfer of training in Maze learning.

- INTRODUCTION :-

1) Definition of Learning :-

"Learning is process of progressive behaviour adaption." [B. F. Skinner].

"Learning is relatively permanent change in behaviour brought about by experience and practice." [Morgan and King].

"Learning is modification of behaviour through experience." [Crales and others].

2) Factors Affecting Learning :-

The following points highlight the four main factor that affect the learning :-

A) ^{Physiological} Psychological Factor :-

i) Sense Perception :-

Sensation and perception are the base of all cognitive processes. weaker the power of perception, lesser amount of learning.

ii) Fatigue :-

Mascular or sensory fatigue causes boredom and indolence. Environmental causes like bad seating, arrangement, inadequate ventilation, light or noise causes fatigue which causes low learning capacity.

iii) Atmospheric conditions :-

High temperature and hemidity lower the mental efficiency. Distractions of all sorts of power of concentration and efficiency of learning.

iv) Age :-

Learning capacity varies with age. Learning proceeds between age 18 to 20, stagnants till and declines up to 37 age.

B) Psychological Factor :-

i) Mental Health :-

Mental tension, complexes, conflicts, mental illness and disorders hampers learning. A maladjusted child finds it difficult to concentrate. Concentration needs mental poise and absence of mental conflict.

ii) Motivation And Interest :-

No learning takes place unless motivation is there. Purposeless learning is no learning at all. Motives energize behaviour. Hunger, thirst induce acquisition of food. Reward induces more success whereas punishment or failure induces actions for achievement.

iii) Success, Praise And Blame :-

Thorndike's law of effect is applicable. The experimental evidences show that praise stimulates small children to work and learn although it does not produce much effect on superior and elder children. Elder children are more sensitive towards reproof and blame than younger one.

iv) Rewards And Punishment :-

Reward of all sorts are powerful incentive to learn but one can become overdependent on rewards. Some refuse to work without any reward.

Punishment are arousing fear in anticipation. It creates hatred or disgust sometimes. Experimental

Studies showed that punishment interfere with complex learning activities when it becomes frequent. Absence of punishment becomes basis of low activity. Disobedience and they waste time also

c) Environmental Factors :-

Learning is hampered by bad working condition. such as bad seating arrangement, noise, ventilation, etc.

d) Methodology of Instructions :-

i) Presentation And Organization Of Materials :-

The learning material should be properly planned and organised. It should be presented in meaningful and interesting manner.

ii) Learning By Doing :-

Theoretical learning should be replaced by practical application of knowledge, experimentation, personal application.

iii) Special Methods Of Learning :-

Learning by the whole and by part method is advocated. Gestalt psychologist do not believe in trial and error, they emphasis on insight learning. They discourage mechanical repetition without understanding.

iv) Timely Testing :-

Through tests the learners know the exact achievement and there is no scope for overestimation or underestimation.

3) The Concept Of Transfer Of Tra Learning :-

Generally the process where by experience one task has an effect (positive or negative) on

performance on different task undertaken subsequently. In other words, learning of one task undertaken sequentially.

Something learned in one task may be carried over i.e. transferred to another task. This transfer may facilitate the learning of the second task, or conceivably have an inhibitory effect and interfere with the second learning.

Transfer effect means the effect of this transfer upon the learning of the second performance.

4) Types OF Transfer:-

i) Positive Transfer:-

When learning of one task facilitates or increases the performance of second task, it is known as positive transfer. The amount of transfer depends on degree of similarity. E.g. knowledge of riding bicycle facilitates learning to riding a bike.

ii) Negative Transfer:-

When learning of first task effects adversely or creates errors in the learning of performance of second task, it is negative transfer.

iii) Zero Transfer:-

Here, learning of one task does not affect the learning of another task at all. i.e. no transfer of learning occurs here. E.g. learning of any language does not affect learning of drawing.

5) Theory Of Transfer By Thorndike:-

Theory of transfer by Thorndike suggest that transfer of learning depends upon the presence of identical elements in the original and new situations.

It means transfer is always specific.

The concept of belongingness was introduced later. It means connections are more readily established the person perceives stimulus go together. It is based on Gestalt principle.

It is applicable to education, mathematics, spelling, reading, measurement of intelligence and adult learning.

6) Mazes And Its Types :-

i) Unicircular Maze :-

It has single path which is commonly called a labyrinth.

ii) Simply Connected Maze :-

These mazes have pathways that never reconnect with one another so every path you choose either leads to additional paths or to a dead end.

iii) Multiply Connected Maze :-

It contains one or more passages that loop back into other passages rather than leading to dead ends.

iv) Wave Maze :-

It has pathways that go under and over each other.

v) Plainnaire Maze :-

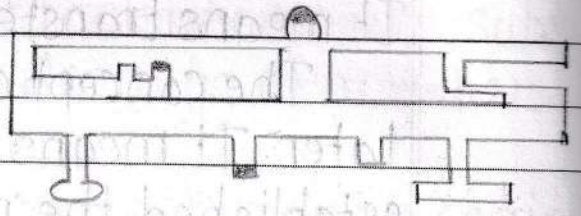
It's underlying topology is usual and which has edges that connect with one another.

vi) Logic Maze :-

A maze that must be navigated by adher to logic rules in addition to following passage. e.g. maze containing different coloured symbols that must be passed in a certain order.

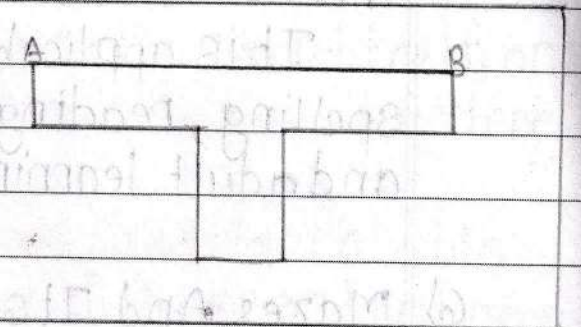
vii) Stylers Maze :-

Stylers is an instrument the subject uses to trace the path of the maze.



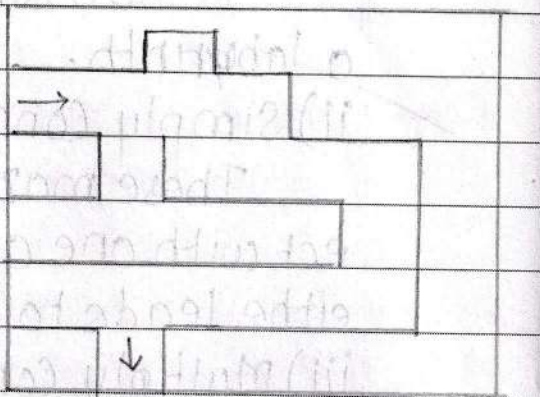
viii) T-Base Maze :-

This is shaped like a 'T'. The test starts at the base of the T and a reward may be placed in either one of the arms or both the arms.



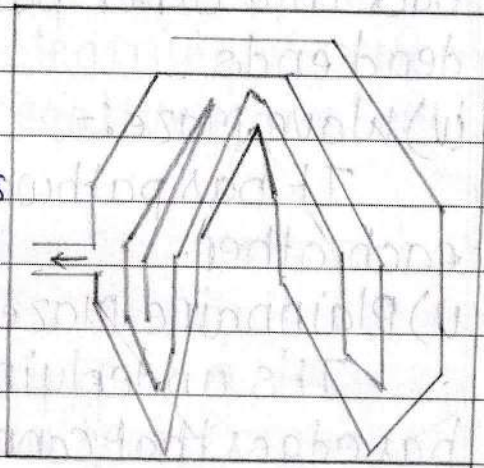
ix) Human Maze :-

It is a body maze for human subjects. Thicks and Cars constructed an outdoor maze with alleys. all wide. bounded by wired strings 2 1/2 ft. from the ground.



x) Finger Maze :-

It is somewhat carries to learn than others for it permits the subject to feel every false.



- HYPOTHESES :-

Learning of the first maze facilitates learning of the second maze.

- VARIABLES :-

Independent Variable :- Training of maze.

Dependent Variable :- Amount of transefer in terms of time and errors.

- PLAN OF THE EXPERIMENT :-

1) Experimenter demonstrate the subject with demo maze for illustration.

2) Subject is blind folded and experimental maze A is presented for learning.

3) Time and error should be noted for each trial till 2 consecutive trial without any errors.

4) Subject ask to draw cognitive map for maze A. Then give 2 min. rest.

5) Then again subject is blind folded and experimental maze B is presented for learning. same procedure to be followed.

- PRECAUTION :-

1) Only demo maze to be shown to the subject while giving instructions.

2) Subject should blind folded carefully before presentation of maze A and B.

3) No verbal or non-verbal cues regarding the path should be disclosed.

4) Experimenter should prevent subject from touching the walls of the maze. If subject is touching the wall experimenter should keep subjects hand on mid path.

5) Retressing path is not allowed.

6) Subject is not allowed to touch table or maze with his fingers.

- 7) Subject is not allowed rest his elbow on table.
- 8) Subject has to draw cognitive map for both the mazes with open eyes.

- PROCEDURE :-

The cubical was set and subject was called inside the cubical and seated comfortably. Rapport was established and further instructions were given :-

"This is a wooden board on which path is carved (show demo). This is the starting point and this is the ending point. Then you have to trace this path with the help of this metal pencil but you will be blind folded for this task. While tracing you have to follow some rules. You are not allowed to touch edges of the maze or table with figure. You are not allowed to rest elbow on table. These are dead ends of the path, if you entre in these block paths it is counted as an error. Once you start going in forward direction you are not allowed to go in backward direction. You have to trace the path as early as possible because I am going to record your time and errors. These task will be continued you trace the path without any error for 2 continue trials. Then you have to draw a map on a paper after learning this maze. I will give you 2 min. rest after that I will be give you maze 'B' and same procedure will be followed for maze B."

- RESULT TABLE:-
Maze A

Trial No.	Blind Path Error										RE	TE	Time (sec)
	1	2	3	4	5	6	7	8	9	10			
1		1	1	1	1	111		1	1			24	240 (sec)
2			✓		✓							11	62 sec
3												0	25 sec
4												3	27 sec
5	✓									✓	4	2	28 sec
6										✓		1	18 sec
7			✓							✓	1	3	20 sec
8											1	1	20 sec
9			✓			✓					✓	3	23 sec
10													25 sec
11													19 sec

Total Time - 504 sec

Total Errors - 48

Maze B

Trial No.	Blind Path Error										RE	TE	Time(sec)
	1	2	3	4	5	6	7	8	9	10			
1							✓			✓	11	4	26 sec
2										✓	1	2	21 sec
3										✓	1	2	19 sec
4										✓	1	2	16 sec
5												0	13 sec
6												0	13 sec

Total time - 108 sec

Total Error - 10

* Treatment of the result :-

1) % of saving in time.

$$\rightarrow \frac{\text{Time for maze A} - \text{Time for maze B}}{\text{Time for maze A}} \times 100$$

$$\rightarrow \frac{504 - 108}{504} \times 100$$

$$\therefore 78\%$$

2) % of saving in Error.

$$\rightarrow \frac{\text{Error for maze A} - \text{Error for maze B}}{\text{Error for maze A}} \times 100$$

$$\rightarrow \frac{48 - 10}{48} \times 100 \quad \therefore 79\%$$

- INTROSPECTIVE:-

"I enjoyed the experiment. I was very nice. 2nd maze was easy for me as there easily path/map formed in my mind for 2nd maze. 1st maze was little hard. But because of it, I traced 2nd maze easily. Knowledge of 1st maze help me to trace 2nd maze rapidly and easily because I feel that both paths are same but just opposite of each other"

- DISCUSSION :-

Statement of the problem is, to determine demonstrate transfer of training in maze learning.

"Learning is relatively permanent change in behaviour as a result of experience or due to practice."

Transfer of training refers to the idea that, when a person has acquired knowledge or abilities in one area of learning it is possible to transfer that information and apply it to other tasks.

Cubical was set, experimenter checked all the material. The subject was called inside the cubical and seated comfortably. Then instructions were given to subject.

Hypothesis was that learning of the 1st maze facilitates learning of 2nd maze.

For 1st maze, that is 'maze A' subject has taken 11 trials to learn that maze. Through the obtain result it can be seen that no. of total errors made by subject has been decreased trial by trial. In 3rd, 4th, 8th and in last two trial there were no blind path errors, though they are again seen in 5th, 6th, 7th and 9th trail. Retracing error were also decreased trial by trial but not too much, this is because subject was much more concerned about not making any mistakes/errors. The obtain result shows that, subject had little difficulty in learning maze 'A', subject has also mentioned this in her introspection.

For 2nd maze that is 'maze B', subject has taken 8 trials to learn that maze. Here also total no. of errors are decreased trial by trial. Subject has made very less errors while learning this maze. Time taken trial by trial is also very much low than previous maze (A), this indicates that subject was using her previous knowledge (learning maze A) to learn this maze, as this maze (B) is just/more opposite of the previous maze (A). This can be also seen in cognitive map drawn by subject. Subject has drawn just opposite map of maze A as a map of maze B. Subject has also mentioned that in her introspection, that, while learning 2nd maze, she had a feeling that she is going through previous path (maze A) just in a opposite way and also that because of maze A its easy for her to learn maze B.

There are four graphs, which indicates, Time (I), Error (II), Trial (III) and % of saving in time and % of saving in error. From the graph it can be seen that there is sudden drop in time, error, trial from maze A to maze B, which indicates that knowledge of maze A has helped subject to learn maze B.

From above discussion it can be seen that subject has taken lesser time and trial to learn maze B than maze A. Total no. of errors are also lesser for maze B than

maze A. So, it can be concluded that, learning of maze A has helped subject in learning maze B. Subject has transferred her training (learning maze A), which has facilitated her learning (learning maze B).

- CONCLUSION :-

Hypothesis is that, learning of the 1st maze facilitates learning of 2nd maze. From obtained result, it can be concluded that, hypothesis is accepted.

- REFERENCE :

- i) Woodsworth R.S and Schlosburg H (1938) Experimental Psychology.

Name: Madhura Vivek Pawar

Expt. No.: _____

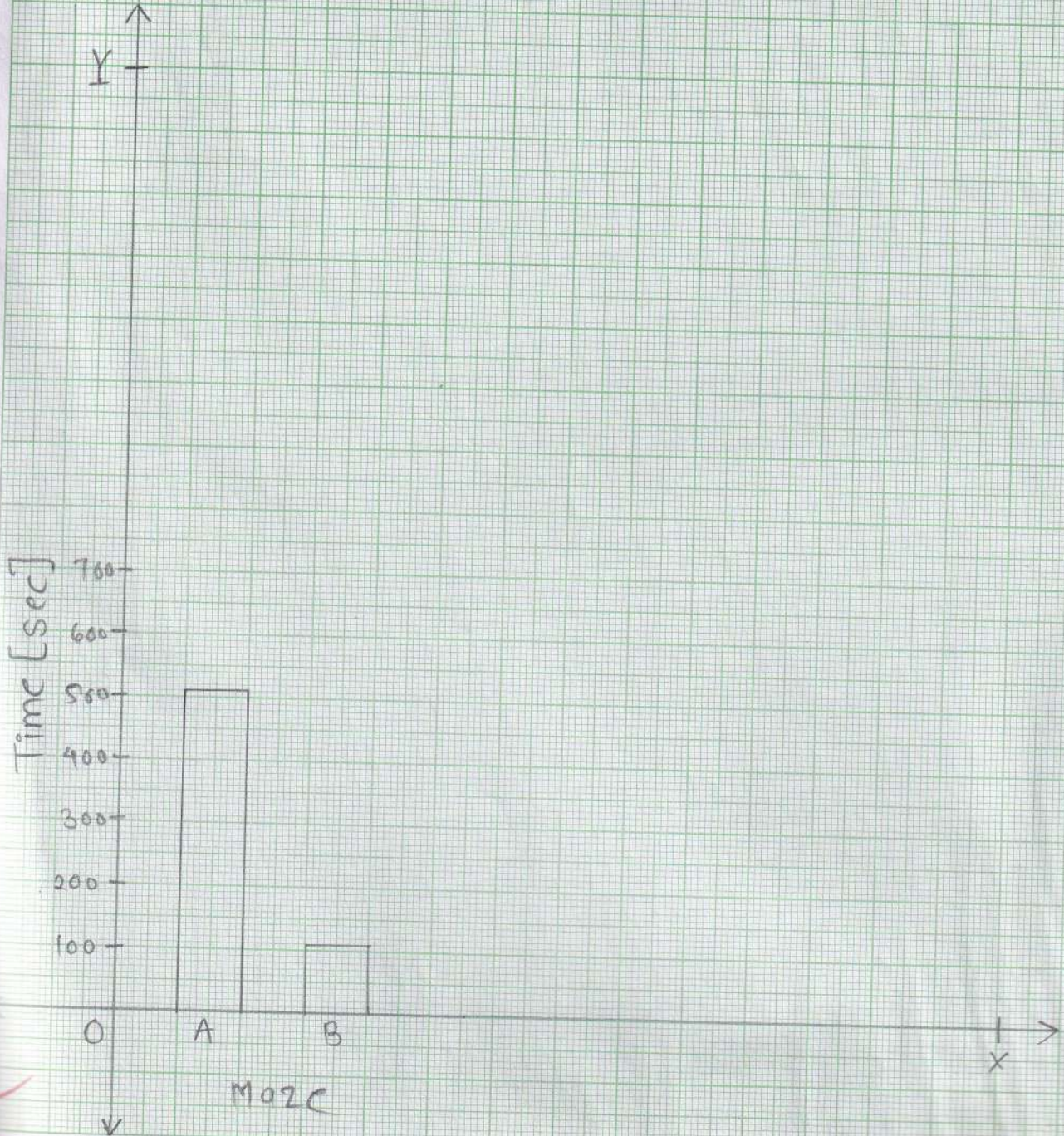
Class: M.A(T) Roll No.: 1865120

Title of the Graph: Graph showing time per maze.

Origin = ()

Slope = _____

Scale	
on x - axis, 1 cm = 1 maze	
on y - axis, 1 cm = 100 sec	
Intercept	
on x - axis =	
on y - axis =	



Name : Madhura Vivek Pawar. Expt. No.: _____

Class : MA.(I) Roll No. : 1865120

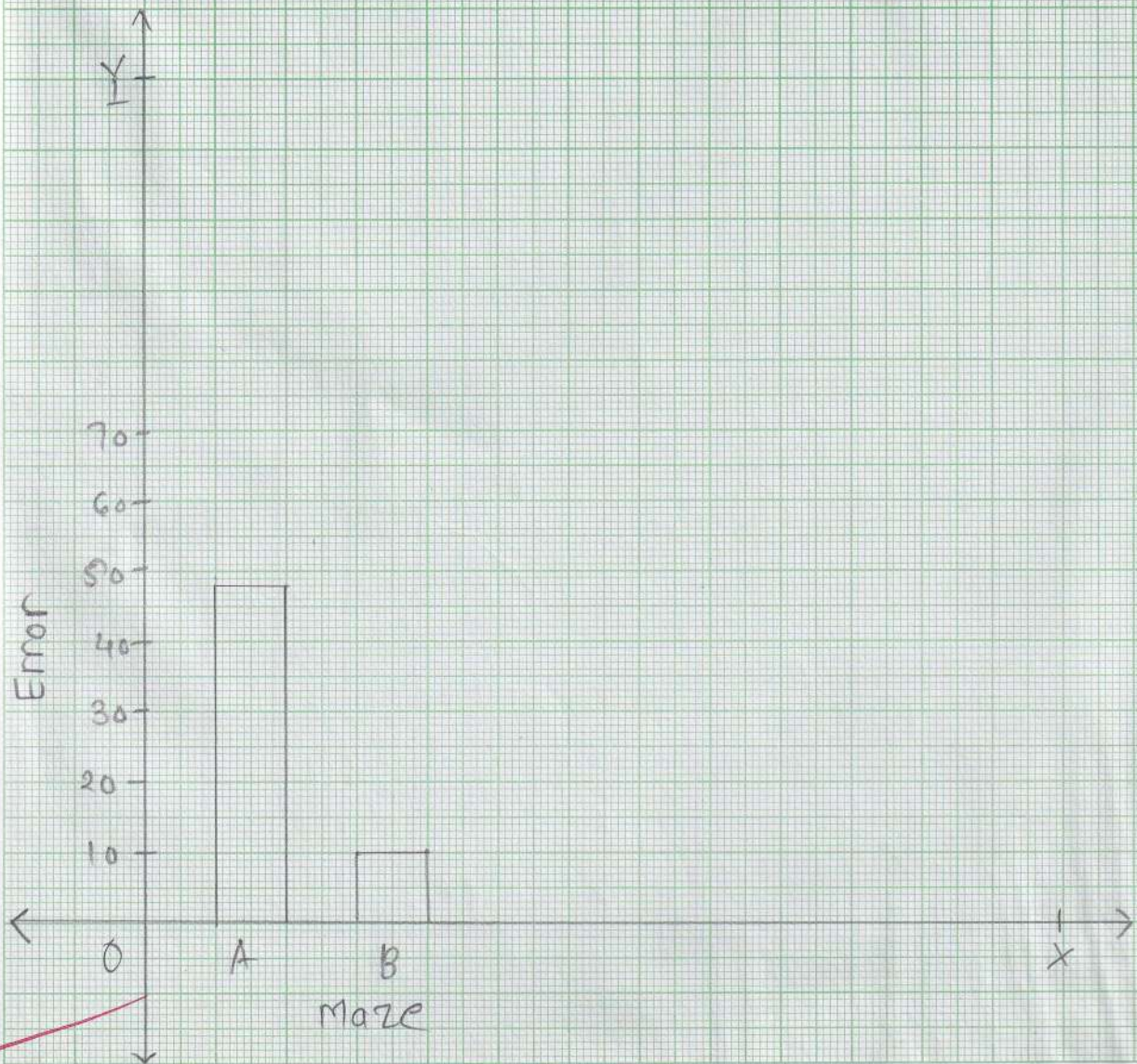
Title of the Graph : Graph showing errors per maze.

Origin = ()

Slope = _____

Scale
on x - axis, 1 cm = 1 maze
on y - axis, 1 cm = 10 Errors.

Intercept
on x - axis =
on y - axis =



Name : Madhura Vivek Pawar. Expt. No.: _____

Class : MA. (7) Roll No. : 1865120

Title of the Graph : Graph showing trials per maze

Origin = ()

Slope = _____

Scale	
on x - axis, 1 cm =	1 maze
on y - axis, 1 cm =	1 trial
Intercept	
on x - axis =	
on y - axis =	



Class: MA(I) Roll No.: 1865120

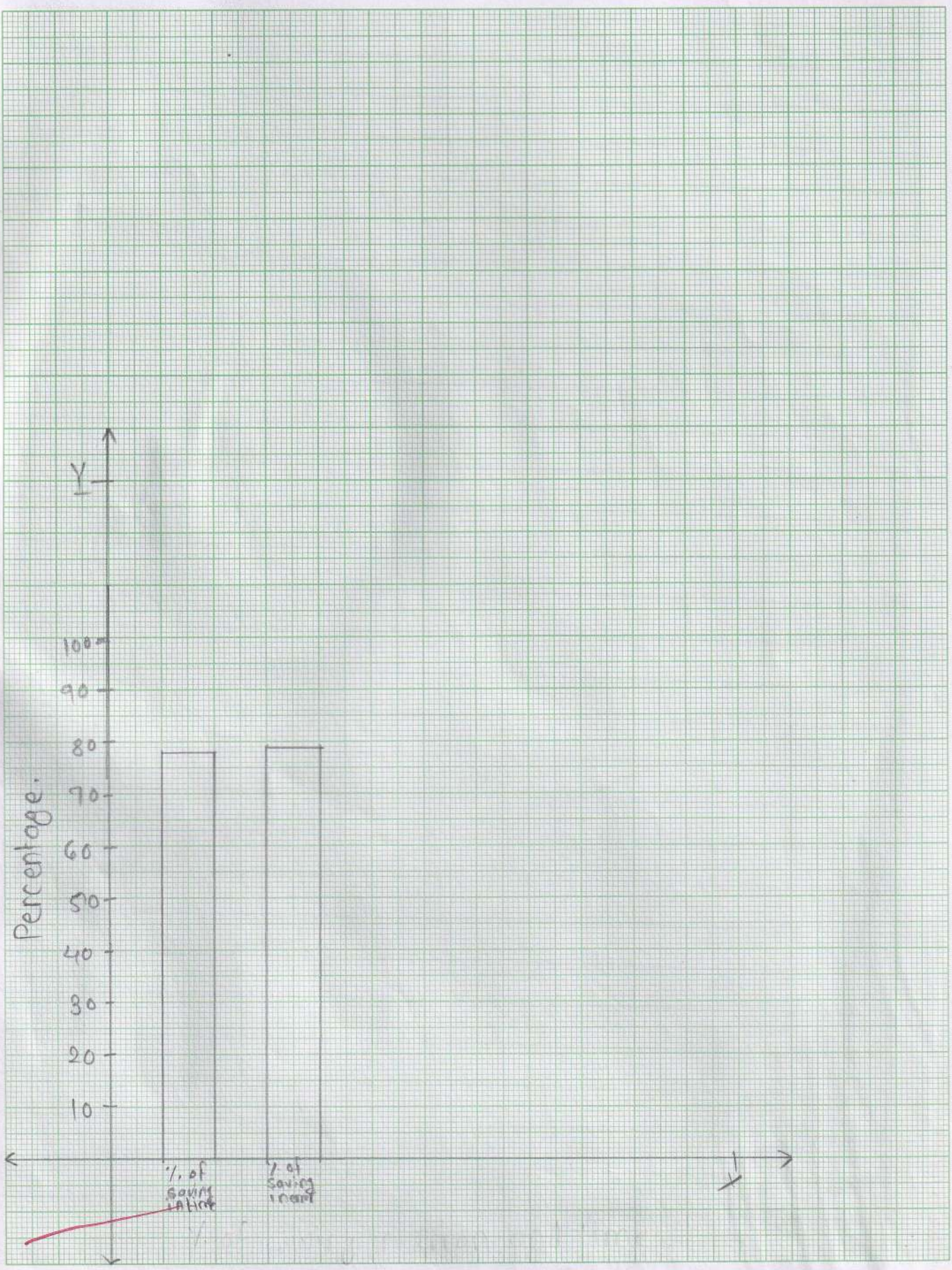
Title of the Graph: Graph showing % of saving in time and % of saving in error.

Origin = ()

Slope = _____

Scale
on x - axis, 1 cm =
on y - axis, 1 cm = 10 %.

Intercept
on x - axis =
on y - axis =



→ Cognitive Map.

* Maze A

