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PRACTICAL-I

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PRACTICAL-I

SYLLABI

1. Distraction
2. Span
3. Division
4. Muller Lyer Illusion
5. Horizontal Vertical Illusion
5. Organization in Perception
6. Set in Perception
7. Motor Learning
8. Insight & Trial & Error Learning
9. Transfer of Learning - Habit Interference
10. Retroactive Inhibition & Proactive Inhibition
11. Memory for Names & Faces
12. Paired Associate Learning
13. Facial Expressions (Group Experiment)
14. Student Stress Scale
15. Anger Expression
16. Knowledge of Results
17. Level of Aspiration

INTRODUCTION

NOTES

Understanding the human mind and behaviour has always been one of the most intriguing subject matters for scholars. The emotional constructs of the human mind are extremely elusive and require an all-encompassing approach to study them. Psychology deals with mental functions and behaviour of humans and animals. It has contributed greatly to society as a whole.

The area in psychology which deals with the collection of authentic and quantifiable behavioural data is environmental psychology. This sub-discipline is concerned with conducting experiments in controlled conditions to make observations and informed replicable results about psychological phenomenon. Wilhelm Wundt is considered to be among the first to publish a book on experimental psychology in 1874 and even later in opening an experimental psychology lab in 1879 in Germany. Even though some consider environmental psychology as a sub-discipline of psychology, the methods of experimental psychology are prevalent in all other sub-fields of psychology to conduct researches.

This book, *Practical-I* deals with the practical aspects of experimental psychology. This will include experiments on the concepts of distraction, span, division, organization in perception, error learning, paired associate learning, anger expression, level of aspiration etc.

EXPERIMENT 1
DISTRACTION: DISTRACTION SCALE

NOTES

Experiment 1 Distraction: Distraction Scale

Aim: To assess the level of distraction in an individual.

Introduction:

When an individual or a groups' attention is diverted from the object of attention to the source of distraction. There are many reasons that can cause distraction in an individual such as poor attention, no interest, interest in something else, and the attractiveness or intensity of the source of distraction. Distraction can come from both internal and external source. Thus, distraction is a major cause of procrastination.

Procedure:

The participants were allowed to see the words for 2 seconds each, along with an inter-stimuli interval for 150s. The words appeared at the center of the screen, with the font style Arial Black, size: 18.

Then a series of 10 sums were presented to the participants for 2s each along with a 200s inter-stimulus interval between the sums. The participants provided the solution of the sums verbally as they appeared on the screen and they were told that the answers are not being recorded or scored.

On the last sum the participants were told to either close their eyes or keep looking at the screen for the SVN or the DVN condition. They were asked to follow the instruction for the next 2s which was followed by a 30s recall period. During the recall period the participants verbally recalled the words who kept their eyes open or closed while the screen showed SVN and DVN for 30s.

At the beginning of the study all the participants were informed that there will be an experimenter who will observe whether the participants followed the intrusions onlooking at the screen or closing the eyes. The experimenter sat right beside the participants, so that the participants could not make eye contact with the experimenter during the encoding and retrieval. All the participants recalled 4 words after the 30s recall period, which were excluded from the analysis. And they recalled 5 words under SVN and 5 words under DVN and 5 under EC instructions in a randomized order. They were all not aware of the condition in which they would be asked to recall the words. At the end of each recall period, all the participants pressed the spacebar when they were ready to move further for the next list of words.

NOTES

Result:

It was observed that visual distraction impedes moderately difficult recall. The recall for the full list was not impeded by the distraction: only the memory of the mid-list items. Therefore, the cause of distraction has seen to be selective, rather than hindering memory in general.

EXPERIMENT 2 SPAN: ATTENTION SPAN

Aim: To find the span of attention of an individual.

NOTES

Introduction

Attention is the concentration of consciousness in certain objects to the exclusion of others in the environment. It is selective, mobile, and highly conscious. At any moment, the field of consciousness is centred on a particular object called the focal point of attention. Fading away from this centre of consciousness, there is a wide range of objects, of which one is only dimly aware. These belong to the margin of consciousness. The question of practical significance is what makes objects attractive to attention. There are two types of conditions objective and subjective. Objective characterize the object of attention while subjective conditions characterize the observer. Although attention involves narrowing down the area of conscious experience to a certain object or range of objects it is possible that the object is complex and may well consist of more than one component. Experiments have shown that a person can attend to more than one dot at a time, when groups are presented in a scattered or grouped form. In the latter case, more dots can be attended to. Within limits, the span of attention may be quite wide.

Materials required

Tachistoscope and cards containing dots from 4 to 8, three in each.

Procedure

The subject was seated comfortably in front of the tachistoscope in such a position that he could have a clear view of the aperture. A few preliminary trials were given so that he could observe the background on which the dots appear.

The following instructions were given to the subject: "You will be shown a series of cards with dots. Give out the number of dots you see in the card. Observe carefully".

Then the 15 cards with dots were shuffled so that they were presented in a random order and the cards were presented one after another and the response for each card was noted. This is, the trial number, stimuli (actual dots presented), and the responses (dots reproduced by the subject) were noted in the table which was kept ready.

Again the 15 cards were shuffled and presented, and the responses were noted as a table. As a result, there were 30 trials altogether and each card was presented 2 times. From the responses of the subject the highest number of dots attended by the subject accurately for all six trials in each category was determined. This was the span of attention of the subject.

NOTES

Table 1 *Showing the Responses of Subject in Span of Attention*

S.No	Stimulus	Response	Remark Right/Wrong
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Table 2 *Showing the Responses of Group in Span of Attention*

S.No	Name	Span of attention
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Scoring procedure

From the above table, count the number of correct responses.

If the subject responds 100 percent for minimum number of dots, then switch over to next dots.

If the subject responds 100 percent for next dot, then switch over to next dots.

Continue this process until the subject responds less than 100 percent.

If the subject responds less than 100 percent, then collect responds from other dots and it will

be the span of attention of an individual.

Results & Discussion

Table 1 shows the attention of the subject

Table 2 shows the attention of the group

1. The span of Attention of the subject is ……
2. The span of attention of the majority of the group is …….
3. Individuals differ / do not differ in their span of attention.

The objectivity of this experiment was to measure span of attention of an individual. Attention involves narrowing down the area of conscious experience to certain object or range of objects it is possible that the object is complex, and may well consist of more than one component. On analysis from the tables, one can infer one subject's span of attention with group subjects. Individuals differ in their span of Attention.

NOTES

References

Parry, J and Amissah, W. *Experimental Psychology*. Madras: Allied Publishers Pvt Ltd 1977.

Hilgard, E.R et. al. *Introduction to Psychology (7th ed*). NY: Has count Brace Javanowich.

NOTES

EXPERIMENT 3 DIVISION: MEMORY DIVISION

Aim: To study the effect of different interpolated activity time on STM (short term memory)

Introduction:

Hypothesis- memory will be better when there is less gap between presentation and testing as compared to when there is more gap between presentation and testing.

Variable:

(i) Independent variable- different gap between presentation and testing

(ii) Dependent variable- no of correct responses by the subject

Definition of memory:

According to Sternberg (1999); "Memory means by which we draw on our past experiences in order to use this information in the present".

According to Matlin (2005); "Memory is the process of maintaining information over time".

Types of Memory

There are three main types of memory:

1. Sensory memory
2. Long term memory
3. Short term memory

Short term memory is the capacity for holding a small amount of information in mind in an active, readily available state for a short period of time. For example: STM can be used to remember a phone number that has just been recited.

Materials Required- Paper and Pencil, set of 21 CVC.

Procedure:

(i) Bring the subject to the laboratory and make the subject seated comfortably.

(ii) Then give him 21 CVCs to learn and recall.

(iii) In between we will give him interpolated task for 4,8 and 12 seconds, after he memorizes the CVC.

(iv) The CVC will be recalled after the interpolated task

(v) After the process is finished give them the permit to leave the room

(vi) After the experiment we will start the analysis and interpretation of data

(vii) If we find more CVCs recalled where time between presentation and testing is less, like 4 sec gaps as compared to 8 and 12 sec interpolated activity, then effect of STM will be seen

(viii) We will analyze the data and give the inference about the experiment in form of graphic representation.

(ix) We will also take an introspective report of the subject

NOTES

Experimental design:

S. No	Interpolated Activity Time In seconds	Correct response Subject 1	Correct response subject 2	Total correct response	% of Correct Response
1	12 sec				
2	8 sec				
3	4 sec				

Instructions:

"I will be giving you a simple task in which you have to learn CVC and recall them when asked. I will also give you some simple subtraction work. "

Data Chart:

S. No	CVC	Interpolated Time in seconds	Interpolated Activity (-3)	Response- correct/ wrong
1	XAJ	4	51	
2	YUZ	8	28	
3	UEG	12	37	
4	TUX	4	62	
5				
21				

Result & Discussion:

Here the result would be interpreted and discussed, in reference of the time of interpolated activity and work done comparisons will be discussed

Result- Hypothesis is proved / not proved

EXPERIMENT 4 MULLER IYER ILLUSION

NOTES

Aim: To measure the level of visual illusion using the Muller Iyer Illusion apparatus, by average error method.

Introduction:

The concept of Muller Iyer Illusion is based on how our brain perceives certain images based on its cues and depth. It is an optical illusion, consisting of three stylized arrows. The participants who are asked to place the arrow in the midpoint turned out they always place it at the end of the tail. This illusion was designed by Franz Carl Muller – Iyer (1857 – 1916), a German sociologist. This illusion based on the principles of convergent and divergent given by Gestalt. It seems the lines drawn lead the eye either inward or outward, in order to create a false impression of the length.

Many attempts were made to understand the working of the Muller – Iyer Illusion. The following the three most commonly used attempts that were made:

1. The first given by Gregory in 1997 "misapplied size constancy scaling" – in this the arrow head dealt with the part of the visual system dealing with depth cues in the retinal images, which result in perceiving the outward pointing arrow longer because it is far.
2. The second "conflicting Cue" was given by Day (1989) which stated that the arrowheads are being perceived to be contributing to the length of the lines, and the longer overall shape of the line with the outward-pointing arrowheads causes the appearance of greater length of that line
3. The third was by Sekuler and Erlebacher (1971) who gave the attempt of "confusion" – the inter-tip distance between the relevant arrowheads influences perceived length. So, for the line with the inward-pointing arrowheads, the distance between the tips of the arrowheads at opposite ends of the line is shorter than the distance between the tips of the outward-pointing arrowheads of the other line, thus causing the illusion.

Procedure:

Preliminary:

i. Name:

ii. Age:

iii. Gender:

iv. Occupation:

v. Educational Qualification:

Material Required: Muller Iyer Illusion Apparatus, Response Sheet

Rapport Formation: Views and likes/dislikes of the subject were discussed and the respective subject was brought down to the comfort and level of ease. All

the participants were explained the details of the experiment. A comfortable rapport was created within the subject.

Instructions:

Ascending: - The line between two heads is standard line with constant line. The line between featherheads is variable line, whose length can be varied. The variable line was held shorter than the standard line and gradually increased its line of length to make if equal to standard line.

Descending: - The variable line was held longer than standard line and gradually decreased variable line until it become equal to the standard line.

Analysis of Data:

1. In each trail, the participants perception of length of variable line is noted by experimenter. A point of subjective equality (PSE).
2. Mean PSE is calculated for each series.
3. Constant error (CE)is calculated in each series

   CF(Ascending) = mean (PSE)-standard line.

   CF(Descending) = mean (PSE)-standard line.
4. Mean constant error (CE)is calculated as.

   $$\text{mean C.F.} = \frac{\text{C.F. (ascending)+C.F.(Descending)}}{2}$$
5. The movement error is calculated by using the following formulas.

   $$\text{Mean} = \frac{\text{PSE (descending)-mean PSE (ascending)}}{2}$$

Reading: (A-ascending)

(B-descending)

Movement Error: $\frac{\text{Mean PSE (descending)-mean PSE (ascending)}}{2}$

Interpretation: We determined Muller Iyer Illusion by method of average error (mean constant error we took hypothesis) ‘’extent of illusion varying with directions of movement”.

NOTES

EXPERIMENT 5
HORIZONTAL VERTICAL ILLUSION SCALE

NOTES

Aim: To see if there is a difference between perception and mental imagery, with visual illusion acting as a stimulus.

Introduction:

The scale vertical horizontal illusion was designed by Johann Joseph Opeel (1815 – 1894), a German mathematician and physicist. The scale was first published in the journal *Jahresbericht des physikalischen Vereins zu Frankfurt am Main* in 1855.

The scale has many versions, but the inverted "T" is the most commonly used among others.

The scale works using the 'misapplied size constancy scaling', a hypothesis which was also used for describing the Muller – Iyer Illusion. As per this, understanding the lines on the scale intersect a part of the visual system (deals with cues) in the retinal images. The result shows vertical line being longer because it is understood to be far away from it.

Procedure

The study was administered in a dark room. The participants were seated 85 cm away from the screen of the computer. They were asked to match the size of the two lines that was showing the stimulus. In both, the task (perception and imagery) participants had to match the size of the line. Though during the perception task, the stimuli remained on the screen, whereas in imagery task it was removed.

During the test one of the administrators noticed that the participants were facing difficulty in differentiating targets on the screen. To see if it was true, before the initial experiment a pilot study was conducted to choose the labels for the target lines. It was also seen that the participants were also having difficulty with cues before we labeled them with the name of the colors.

EXPERIMENT 6
ORGANIZATION IN PERCEPTION: FIGURE GRAVED PRINCIPLES

NOTES

Aim: To demonstrate the phenomenon of figure graved principles.

Material Required - Figure graved pictures and other stationery items.

Instructions: Two pictures having figures and graved on it will be shown. You would have to describe your observation of what you saw in the figures from two aspects. Same will be applied for the second picture. Thus, there would be two responses for each of the picture. Both the responses will be recorded concerning both the pictures.

Scoring and Result Table

PICTURE/S.NO	RESPONSE 1	RESPONSE 2
1.		
2.		

For the perception task the stimulus was shown on the top of the screen for 1000s along with the cue word telling them which line has to be estimated. After they've matched the lines the same procedure was repeated for other lines as well.

For the imagery task the stimulus was showed for 3000ms only. Participants were asked to visualize the image and then were cued to estimate the line. Only the labels and the scale were shown on the screen while the participants were matching.

The whole test was conducted without fixating any part of the screen.

The illusions were showed 10 times during the course of the test, and the pseudo and distractor illusions were showed only twice. The images were randomized.

Result and discussion:

Participants who did not utilized any responding strategy showed the following pattern:

1. Pseudo and illusions were longer vertical lines.
2. Distractors showed no difference
3. Vertical lines were guessed to be long

EXPERIMENT 7
ERROR LEARNING: MAZE LEARNING

NOTES

AIM: To study the progress of learning in human maze learning and to know the method adapted by the subject.

Introduction

Meaning of Learning

Theory of Thorndike: According to Thorndike, when a living being is placed in a situation without knowing he reacts in a number of ways. These reactions are faulty. When he is placed again and again in this situation then the number of his faulty and random trials reduces. A stage then arrives when the animal or living being encounters the situation again and he then gives the right trial. Therefore, a living being learns through practice and error. In other words, when it encounters a specific situation then he reacts in a specific way. After a number of trials and errors are reduced or finished, and a relation is established between stimulus and response, which is known as S-R bond.

Definition of Learning

According to Thorndike: "Learning is Connecting. The mind is man's connection system."

Laws of learning:

There are three laws of learning namely, readiness, exercise and effect.

According to the law of reading, when a person is ready to learn he will learn more efficiently.

The law of exercise is divided into two sub-scales namely, law of use and law of disuse. According to this law, repetition is required for the development of appropriate responses, thing and the ones repeated more are easily remembered.

Where the law of effect stresses upon the idea of any action which is followed by a positive consequence is likely to be remembered rather than a negative consequence.

There are four factors that affect learning namely, physiological, psychological, environmental, and methodology of instructions.

Maze Learning: It works on the principle of "hit and miss" and trial and error. The person has to start from the initial point and reach the final end point without committing any error. In this method of learning, one has to find the correct way through the maze by practicing again and again.

Materials Required: Electric Maze, Stylus pen, paper and stopwatch.

NOTES

Procedure

- The objective is to reach the target point through human maze, through the right way.
- To begin with the starting point and find the way to reach the end point, without any error.
- Trial will be taken till the subject takes the right way at least three times.
- Time taken and error committed in each trial is to be noted.

Instruction

Start from a point A and then move through the maze to reach the point B. You will try to minimize the error with every successive trial. Your trial will be completed if you reach the target B at least three times with zero error. When you are practising, the time taken, and the error committed by you in each trial will be noted. You will not lift the stylus while moving from one point to another. You will begin when someone says "start" to reach the target B. You can move left, right or up but not diagonally.

Result

No. of Trials	No. of Error	Time Taken
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Condition	Mean of Time	Mean of Error	Saving Time Due to Practice	Deduction of Error
First Two Trials				
Last Two Trials				

Discusstion

In the present experiment our problem is to study the effect of practice on learning, for that we had used maze learning. Our hypothesis is that practice have a positive effect on learning so we can say the theory of Thorndike's is helpful in learning.

NOTES

EXPERIMENT 8
TRANSFER OF LEARNING-HABIT INTERFERENCE: BILATERAL TRANSFER

Aim: To demonstrate the phenomenon of bilateral transfer using mirror drawing apparatus.

Material Required: Mirror drawing apparatus, stylus, stopwatch and other stationery items.

Introduction:

Variables:

Independent: Direction, Traits

Dependent: Increase and decrease in error.

Basic Concepts:

Learning: Learning can be defined in many ways, but most of the psychologists agree that it is a permanent change in behavior that results from experience.

Characteristics of Learning:

- All learning involves activities
- Learning is a lifelong process
- Learning involves problem solving
- Learning is the process of acquiring information
- Learning requires interaction

Theories of Learning:

Three types are: Classical, Operant and Social conditioning

i) Classical Conditioning: It is learning process that occurs when two stimuli are repeatedly paired: a response which is at first elicited by the second stimulus is eventually elicited by the first stimulus alone.

ii) Operant Conditioning: Operant conditioning, sometimes referred to as instrumental conditioning, is a method of learning that employs rewards and punishments for behavior.

iii) Social Conditioning: The sociological process of training individuals in a society to act or respond in a manner generally approved by the society in general and peer groups within society.

Learning Curves

The learning curve denotes a graphical representation of the rate at which you make progress learning new information. The better you become at the task the less you still can make progress in the learning curve. Hermann Ebbinghaus First described the learning curve in 1885 in the field of the psychology of learning.

NOTES

Procedure: Conduction – The subject was informed about the instructions of the experiments of the experiment. All the important materials were presented to the subject and test started in the room. Distractions were limited to have the experiment as fast as possible. Subject was told to look at the star image on the apparatus, He traced the star patterns as told with the help of stylus and mirror drawing an apparatus. Errors were counted and recorded at every trial. both preferred. A nonpreferred hand had been used in the experiment. the conduction of the experiment went well.

Instruction: Looking at the mirror you will see a star image. The star image is it reflection of a pattern graved on the wooden and hidden by the screen. Take the stylist in your left hand. The experimenter will give stylus to the subject and help into position it Add the end of nearest position or projection. Now you will have to look into the mirror image and trace the star next to the stylus. It shouldn't touch the edges of start pattern; if you touch the edges, it will be counted as an error. Ask the subject to trace the next 15 traits with the right hand. But last drill will be taken by non-preferred hand after the two minutes break.

Resulttable:

Traits	Using Hands	Time(seconds)	Error	Direction
1.	Left hand			
2.	Right hand			
3.	Right hand			
4.	Right hand			
5.	right hand			
6.	Right hand			
7.	right hand			
8.	Right hand			
9.	Right hand			
10.	Right hand			
11.	Right hand			
12.	Right hand			
13.	Right hand			
14.	Right hand			
15.	Right hand			
16.	Right hand			
17.	left hand			

Scoring:

Transfer effect of time –

Pre-training Time = Post Training Time ÷ Pre-training Time *100

Discussion

The time reduces due to transfer of learning due to practice.

NOTES

EXPERIMENT 9
RETROACTIVE INHIBITION AND PROACTIVE INHIBITION

Aim: To design, conduct an experiment to demonstrate the phenomenon of retroactive inhibition.

Introduction:

Meaning of Forgetting: Forgetting or disremembering is the apparent loss or modification of information already encoded and stored in an individual's short or long-term memory.

It is a spontaneous or graded process in which old memories are unable to be recalled from memory storage.

Definition of Forgetting

According to DREVER (1952): Forgetting means 'Failure at any time to recall an experience, when attempting to do so, or to perform an action previously learnt.'

According to Munn (1967): Forgetting is the loss, temporary or permanent of the ability to recall or recognize something learnt earlier.

Meaning of memory: Memory is the faculty of the brain by which data or information is encoded, stored and retrieved when needed.

It is the retention of information over time for the purpose of influencing future action.

Definition of Memory:

According to Sternberg (1999): "Memory means by which we draw on our past experiences in order to use this information in the present".

According to Matlin (2005): "Memory is the process of maintaining information over time".

Types of Memory

There are three main types of memory:

i) Short term memory

ii) Sensory memory

iii) Long term memory

Short term memory: It is also referred to as working memory. Something we are thinking right now is a short-term memory. It takes less than a minute to process. This type of memory is created for a short time period usually when we are doing something else. For instance, when we reading, we usually put the word in our mind and process it and then say it aloud in order to understand.

Sensory memory: This type of memory is short term memory. We need our senses to pick the thing if we want it to enter the memory, it could be touch,

sight, hearing and smell. This type of memory uses all the five senses to create a memory.

Long term memory: This type of memory stores all the information we've processed over a long period of time. Even forgetting a long-term memory is decaying very little and even after that we will be able to recall the most of it.

NOTES

Types of long-term memory:

a. Implicit memory (Procedural memory)

b. Explicit memory (episodic memory, semantic memory)

Implicit memory is referred to as procedural memory skills in how to do particular movement of body parts and use of objects on machines. An example: When the teacher asks child to write over and over it becomes embedded until he is able to do it thinking so much about it. Another example riding a bike, tying a shoe, playing the guitar etc.

Explicit memory: In this type of memory, we store location, addresses, phone numbers, and our experiences.

Episodic memory: It consists of the life events and experiences we've had over the time period. For instance, first day of school, or a new job.

Semantic memory: It refers to the things which are common to our knowledge like colours, letter sounds, name of the countries, all which are basic facts.

Hypothesis: Forgetting would be greater if followed by interpolated task than if followed by rest.

Variables:

Independent variable—Interpolative task after original learning.

Dependent variable—Forgetting of original learning.

Materials Required:

(i) Pen

(ii) Paper

(iii) list of non-sense words.

Procedure:

a) Experimental Design

Condition.	***Original Learning.***	***Criteria of learning.***	***interval***	***Recall and retention***
Control condition	List'A 'of'10'nonsense word.	***Two error less trial.***	***10 min***	***List "A"***
Condition	***Original learning***	***Criteria of learning***	***interval***	***Recall and retention***
Experimentalcondition	***List'B'OF10NONSENSE WORDS.***	***TWOERRORLESS TRIAL.***	***Cancellation task.***	***List 'B'***

NOTES

b) Planning

The subject are to be seated properly in the lab, after his/her consent for the experiment, we will start the experiment. In this experiment, we are going to study the effects of interpolated activity in recalling learned material. For this, we have prepared 2 lists of nonsense words: one for controlled condition and another for experimental condition, that we will hand over to the subject. For learning, trials have to be taken in controlled condition first in which the subject has to learn the nonsense words of list "A", trials continue until zero error. After 10 minutes, the list 'B' of nonsense words given to the subject to learn the nonsense words until the zero error. A cancellation task will be given after completing the task, by analysing errors properly we will get the appropriate result.

Instructions: You will be given 2 lists separately to learn one by one then, we will take trials in controlled and experimental conditions respectively till the occurrence of zero error, then we will go through the recalling process and afterwards percentage of incorrect and correct responses in both the conditions will be counted.

Table:

Controlled Condition:

S.NO	*LIST-A*	*TRIALS*	*RECALL.*
1.	ITA	REST OF 10 MIN .	
2.	THI		
3.	ITH		
4.	PII		
5.	IKK		
6.	TIZ		
7.	TAC		
8.	DAC		
9.	KOT		
10.	OOT		

Experimental Condition:

S.NO	LIST- A	TRIALS	RECALL
1.	TUM	CANCEL LATION TASK FOR 10 MIN.	
2.	LOM		
3	PIB		
4	TES		
5.	ZAP		
6.	MIG		
7.	BAC		
8.	WEV		
9.	KAD		
10.	BIV		

Scoring Procedure:

- Trials will be taken in both the conditions i.e., experimental and controlled conditions till the zero error.
- Afterwards, we will go through the recalling task and also, we will have to give rest and cancellation task in the trial before recalling and then further it will be decided in which condition subject remembers the most.

NOTES

Result and Discussion:

From the above table we conclude that percentage of recall in controlled condition is 60%, in experimental condition is 30% and the percentage of forgetting in controlled condition is 40% in experiment condition is 70%.

Discussion:

In the present experiment, our problem is to study the effect of interpolated activity in recalling of learned material. Our hypothesis is that the interpolated activity decreases the amount of recalling of the learned material and in the experiment, we get to see that the subject also recalls properly in control condition due to the rest given. It has been observed in number of studies-

- According to Mc Geach and Mc Donald, if the original and interpolated learning is of paired associate type, the RI in such type of material much similarity is there. In the stimulus words, the amount of RI is also more. whenever there is similarity in the response words for paired associate material then the amount of RI decreases as the similarity increases.
- According to Bruce, Osgood and Young also obtained such results from their experimental studies.
- According to Postman and Piley: They obtained different results in their studies. The only reason for this difference found by their psychologists is that the trial of original learning and interpolated learning was different.
- When there is less difference in the original learning and interpolated learning there is an increase in RI. Increase in similarity after a certain limit becomes similar to practice therefore, retention is increases and RI decreases.
- According to Melton and Irwin: With increase in the interpolated learning RI also increases. These psychologist by the help of a list of 18 nonsense items, different groups of subjects were given 0,5,10,20 and 40 trials. Observations of this experiment made it clear that the amount of RI increases up to 20 trials. With the increase of trials up to 40 trials a very little increase in RI was found.

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EXPERIMENT 10
PROACTIVE INHIBITION: BROWN PETERSON PARADIGM

Aim: To investigate the duration of short-term memory.

Introduction

Proactive inhibition or proactive interference is an aspect of interference in learning and is a concept that describes the increased difficulty of learning or remembering a set of words after that set had been learned in a previous, different context. It applies to free recall and associative or list learning procedures of assessing memory.

Underwood (1957) provided early evidence that things you've learned before encoding a target item can worsen recall of that target item. In a meta-analysis of multiple experiments, he showed that the more lists one had already learned, the more trouble one had in recalling the most recent one. This is proactive interference, where the prior existence of old memories makes it harder to recall newer memories.

Proactive interference can be potently demonstrated with the Brown-Peterson paradigm (Brown, 1958; Peterson & Peterson, 1958). A single Brown-Peterson trial consists of a study list, a retention interval and then a recall period. The study list might consist of a handful of related items (such as a handful of animals or occupations), presented individually every few seconds. For the duration of a short retention interval, subjects are then asked to perform an engaging distractor task such as counting backwards in sevens (to minimize rehearsal). Finally, subjects are asked to recall the items from this study list.

Usually, subjects' back side recollection is nearly perfect for the first trial but perform increasingly poorly on subsequent trials that use study lists drawn from the same category. This is the proactive interference effect described earlier. In other words, even though the lists from previous trials are now irrelevant, the fact that they were studied at all is somehow making it harder for subjects to recall the most recent list.

Procedure

A lab experiment was conducted in which 24 participants (psychology students) had to recall trigrams (meaningless three-consonant syllables), such as TGH, CLS.

The trigrams were presented one at a time and had to be recalled after intervals of 3, 6, 9, 12, 15 or 18 seconds respectively for each trial. No two successive trigrams contained any of the same letters.

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After hearing a trigram, participants were asked to count backwards in threes or fours from a specified random number until they saw a red light appear (then they recalled the trigram). This is known as the Brown Peterson Technique, and the purpose was to prevent rehearsal.

The independent variable was the time interval between hearing the experimenter say the trigram and the participant recalling the trigram (after seeing a red light), e.g. 3, 6, 9, 12, 15 or 18 seconds.

The dependent variable was the number of trigrams correctly recalled by the participants after every trial. There were six trials in total.

Findings

Their results showed that the longer each student had to count backwards, the less well they were able to recall the trigram accurately.

After 3 seconds 80% of the trigrams were recalled correctly.

After 6 seconds this fell to 50%.

After 18 seconds less than 10% of the trigrams were recalled correctly.

Conclusion

Short-term memory has a limited duration (of about 18 seconds) when rehearsal is prevented. It is thought that this information is lost from short-term memory from trace decay.

The results of the study also show the short-term memory is different from long-term memory in terms of duration. Thus, supporting the multi-store model of memory.

If a person is not able to rehearse information, it will not transfer to their long-term memory store.

EXPERIMENT 11
PAIRED ASSOCIATIVE LEARNING

NOTES

Aim:

- To study the process of memorization by paired association method
- To study the learning curve

Introduction:

The assessment paired associative learning was designed to recognize how individual encode and retrieve newly established associations among stimuli. in this study participants were asked to memorize unrelated word pairs. After a point of time the participants memory were tested by making them either recall the word which was paired or by asking them to differentiate between the pair of words.

Mary Whiton Calkins in 1894 invented paired associate learning, in which two items namely a stimulus and a response was paired. According to the psychological research individual who learn paired associations, engage in two different mental processes: firstly, the memorizing of the response, and secondly the development of a connection between the two words. It is seen that the second process creates one-way association in many situations. For instance, the individual will only remember the word when provided with a stimulus. Whereas when the word for both the stimulus and response is same, the individual is seen to be using the word in two different ways. The conclusion of the study was that the individual doesn't remember the word as a stimulus but as a unit.

Procedure

All the instructions were given to the subject and all his doubts were rectified. The subject was shown the 10 pair of 16 pairs of sensible words for 2 seconds and such words were to be memorized by the subject.

After this, subject was shown only the stimulus word and asked to recall the response word for that particular stimulus word.

In case, the subject gives correct response (–′) is given and if subject gives wrong answer (′) was given.

This procedure as continued till the subject responded correctly to all the stimulus word in both sensible and non-sensible words. After the experiment, subject was asked to give introspection report.

Instructions

The subject was given following instructions: 'I will show you 16 pairs of sensible words and 16 words of non- sensible words. First of all, I will show sensible words. Each pair of word will be shown for 2 seconds reasonable those words. After that only one word will be shown to you that is the stimulus word and you

have to tell the other word which I showed you earlier. This will go for all the sensible words one by one. This will go until you give all the correct responses.' The same procedure will be adapted for non-sensible words.

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Blank result table

S. No	Meaning of words	No. of trials				
1	Beach – Sun					
2	Mirror – Truth					
3	Tree – root					
4	Hand – watch					
5	Night – candle					
6	Child – mother					
7	Brother – fight					
8	Temple – bells					
9	Flower – smell					
10	Class – furniture					
11	Beautiful – doll					
12	Health – doctor					
13	Task – big boss					
14	Copy – test					
15	Tape – kite					
16	Stick – beat					

Scoring

Observation table for sensible words

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Result & discussion

The subject learnt the sensible paired words in 5 trials and non-sensible paired words in 11 trials.

1st trial –

2nd trial

3rd trial

4th trial

5th trial-

For non- sensible words

1st trial

2nd trial

3rd trial

4th trial

5th trial

6th trial

7th trial

8th trial

9th trial

10th trial

EXPERIMENT 12
FACIAL EXPRESSION (GROUP EXPERIMENT)

NOTES

Aim: To identify the most common facial expressions in a group setting.

Introduction:

Our face consists of mostly three types of muscles, striped, voluntary, variety. Muscles are mostly uniform in shape, and almost all of them run from a fixed point over a structure called the 'origin'. There are 24 facial muscles which are grouped into seven regional classes namely: brows and forehead, eyes, nose, upper lip, lower lip and chin, mouth aperture, and lower jaw.

The most fundamental type of facial expressions is pleasant and the unpleasant. Whereas other facial expression includes despair, sadness, grief, amazement, disillusionment, horror, hate with distrust, rage, rage with fear, incredulous doubt, anxiety, disgust, sneering, watching scorn, laughing scorn, meaningful smile, entreating smile and laughing.

Experiment on Facial Expressions:

A study was conducted by professor H.S. Langfeld in the year 1917. The study consisted 105 pictures, representing the 14 types of facial expressions. Subjects were told to see the picture and identify the type of facial expression. Only 33% out of 525 judgements were correct. Among them laughter was the one which was identified mostly correct, whereas, anger the least. And pain was readily identified, while disgust and fear did not.

EXPERIMENT 13
STUDENT STRESS INVENTORY (SSI)

NOTES

Aim: To assess the level of stress among college going students.

Introduction:

Stress seems to be as old as the mankind is. Stress in multiple ways and fashion touches each of us in various ways. It's an integral part of our life. It can be seen both as a stimulus (as a property of the event or situation we face for example, natural disaster, noise, crowding etc) and as a response (to a stimulus event known as a stressor that threatens to disrupt or disrupts one's physical and social functioning).

Stressors can be external conditions like earthquake; pollution etc or they can be internal conditions like one's thinking patterns. Stressors perceived to threaten one's well-being and demand some kind of an adaptive response.

Stress is usually experienced in terms of three components, that is, emotion (such as anxiety or fear), thought (such as pessimistic self-talk) and behaviour (such as smoking). All situations, positive and negative, that require adjustment can be stressful. Thus, according to Hans Selye (1956), there are two kinds of stress—— Eustress (refers to stress caused by positive situations such as marriage, promotion etc.) and Distress (refers to stress caused by negative situations such as death, divorce, loss of a job etc.). Though both eustress and distress tax an individual's coping skill and resources but distress has more potential to cause damage.

Stress among students

Stress among students is inaugurated mostly by their family and parents. They being as a parent have expectation from their students. Students failing to the expectation of their parents suffer from frustration, physical stress, aggression, undesirable complexes and depression. Whereas, the students who perform poor in academics, develop negative traits such as shyness, unfriendliness, jealousy, and may become aloof.

Parents expectation from their children and wanting them to be outstanding at every subject, activity and play, put children under stress. Students often feel they are being asked too much, in result they feel tensed and depressed. They complaint that, they don't get time for themselves. Students carry immeasurable amount of anxiety, negative personal traits and suffer from massive attention problems because of their failure to adapt transition and change.

Sources of Stress

For the purpose of convenience, the various sources of stress can be categorized into the following headings:

i) **Major life events:** Some of the major life events that evoke stress are break up of relationship, death of a family member; presence of a chronic

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disabling illness in oneself or in his or her family; shifting of home, job; change in one's social status; significant financial loss etc. Holves and Rahe have devised a social readjustment rating scale (SRRS) by asking individual to assign a value to various events in terms of LCU (life changing units), indicating the amount of change an individual is requested to make in response these events. If stress inducing life events continue then, it can either lead to habituation or to chronic strain.

ii) **Daily life hassles:** It include things like forgetting things, getting stuck in traffic jam, falling ill quite often etc. which also carry a potential to evoke significant stress in an individual. In contrast to these hassles are daily life events like receiving a compliment, listening to one's favorite song, meeting friends etc. that can uplift one's mood and help in reducing stress. To measure an individual's experience of daily life hassles and daily uplifts, Lazarus has devised the Hassles and Uplift Scale. Research has suggested that daily life hassles are a better indicator of one's illness. Also, they tend to interact with the chronic background stressors like living in a crowded place.

iii) **Environmental stress:** It is caused by stressors like noise, crowding and natural disaster. Noise tends to impair one's ability to attend to cognitive tasks and effects one's Short-term memory. In a study conducted by Even et.al, in 1995, it was seen that children who lived near airport had increased blood pressure, increased cortisol levels and increased stress hormones. Crowding is seen as a psychological state which refers to an individual's subjective sense of space he or she needs to work and live comfortably. Crowding has also been found to correlate positively with aggression, crime rate and withdrawal from interpersonal relationships. Freedman's work (1975) on the effect of crowding on inmate prisoner showed that crowding is associated with increase in death rate, increase in blood pressure, and increase in level of stress hormones. Natural disasters result in loss of property, money and live; broken relationships and the need to re-begin life from a scratch in its victims. Survivors of natural disasters sometimes suffer from Post-Traumatic Stress Disorder (PTSD).

iv) **Occupational stress:** Today it is one of major cause of stress related illnesses. However, it can be managed effectively by redesigning one's job and taking appropriate intervention measures. The occupational stress can result from various sources as mentioned below:

   a) **Work overload:** It refers to working too hard, too long, on a number of tasks. In fact, in Japan a tern called as *Karoshi* has been coined to indicate death resulting from work overload. Work load is often determined by the quality of work and individual is supposed to undertake. For instance, it is seen that if the work is felt meaningful by people then they are likely to experience less stress. Also, when work load involves responsibility to people, then the degree of stress is higher than in conditions where workload involves responsibility for products.

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Similarly, the job of an Air Traffic Police is regarded as being quite stressful.

b) **Globalizing, Down-sizing and Technology advancement:** The changing times and work scenarios have led to globalization, down-sizing and significant advancement in technology and its use in one's work places. Globalization is associated with culture shock which in turn calls for heavy adaptation demands. Down-sizing may lead to loss of job, inability to find another suitable job and to the fear of losing one's job which is quite stressful in its nature and can make the individual feel depressed and suicidal. It may also lead to significant long-term adjustment difficulties, poor self-concept, feelings of worthlessness and helplessness and hopelessness. Advancements in technology at one hand has made work faster and efficient but on the other hand too much computerization has made the job monotonous and boring in nature, thus reducing its meaningfulness and causing stress. It has also forced individuals to adapt and continuously upgrade themselves with the new demands of technology.

c) **Role related stress:** The term 'role' refers to expectations associated with one's position, rank or status. The more the number of roles an individual is required to perform (role space); the lesser the clarity about the expectations and demands associated with job (role ambiguity); the more an individual is required to sacrifice his own interests in order to meet expectations of others (role blondness); the more the stagnation and the lesser the opportunity for growth (glass ceiling effect); the more inadequate the resources available to the more inadequate an individual felt to perform the job (role inadequacy); the more the conflicting expectations and demands associated with the job (role conflict); the more the expectations demanded out of a role (role overload); and the more an individual has demanding roles to fulfill both at the workplace and at home; the more the individual is likely to feel stress. It is usually seen that women who are required to manage both their family and work pressures are likely to experience more stress than men who have to manage their work pressures only. Often work at job requires an individual to work in a team. The lack of cohesiveness and social support in one's team is likely to further increase the stress level.

d) **Burnout:** It refers to a state of complete physical and psychological exhaustion which is job-related. Burnout is characterized by presence of feelings of being emotionally drained, loss of energy and fatigue (emotional exhaustion); loss of idealism in work and presence of negative attitude towards job and other people at the work place (Depersonalization) and loss of sense of work-related competence and achievement (reduced personal accomplishment).

e) **Lack of control over work:** Dull, repetitive and job requiring less personal control are likely to be more stressful.

f) **Shift work:** Jobs that require an individual to make day and night shifts are likely to be more stressful as the shifts tend to disrupt one's biological rhythm. Also, these individuals tend to frequently report complaints of headache, loss of appetite, sleep disturbance, gastro-intestinal problems and other health complaints.

g) **Gender harassment:** Harassment of women at work in the form of verbal and physical abuse, eve-teasing and criticisms or nasty comments based on one's gender are likely to add to job related stress as such behaviors may lead to the development of low self-esteem, insecurity, anxiety and threat of being unsafe.

v) **Personal relationships**: Presence of stable, healthy, meaningful relationships is regarded as a major stress buster. But at the same time, interpersonal conflicts, conflicts with family members at home, unhappy conflictual marriage, can cause significant stress, especially when the individual desires to be understood by his friends, family and or spouse but often feels misunderstood. In addition, sudden death of a family member; or a loved one; divorce or separation from the partner can also evoke a lot of stress. Several factors that can make divorce or separation all the more stressful are holding oneself responsible for the failure of marriage; the need to justify the separation or divorce to family and friends; associated cultural and societal stigma; loss of valuable friendships; involvement of children; custody issues of children; court trials; readjustment to a single life and the need to from new friendships.

vi) **Frustration, threat and conflict:** Presence of frustration (i.e., any obstruction in one's way to achieve his goal); threat (i.e., fear of something negative happening or the fear of harm in future) and conflict (i.e., difficulty in deciding between available options) can be a major source of stress. High expectations, lack of ability and lack of resources (like time, money, support etc.) needed to achieve one's goal can cause immense frustration. Individuals having a negative cognitive bias, being high on anxiety and apprehension are more likely to experience threat when faced with uncertainty and hence may feel more stressful. Conflict can be of three types—— approach-approach conflict (is a conflict between to desirable options); approach-avoidance conflict (arises when an individual has both positive and negative feelings towards a particular object or a choice in live) and avoidance-avoidance conflict (is a conflict experienced by the individual towards two undesirable options).

Consequences of Stress

Stress at its optimum level can have adaptive and positive effects, for instance, it can increase one's tolerance for future stressors but continued exposure to severe

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stress can have more negative and damaging effect on one's physiological and psychological functioning, for instance, it can lower one's efficiency, cause depletion of adaptive resources, resulting in severe personality and physical deterioration-even death.

The term stress was coined by Cannon (1932) and he believed it to underlie all medical problems. He termed the body's physiological response to stress as a fight-flight syndrome. In fight-flight syndrome, the epinephrine, cortisol and other hormones prepare the body to defend against stress by attacking or by running away from the stressful situation. He regarded this response as highly functional and adaptive in nature. Different physiological mechanisms that seem to play a role in stress are—brain, nervous system and the endocrine system.

Role of brain and the Central Nervous System

Body's overall reaction to stress is regulated by central nervous system (CNS). A potential stressor is perceived by the sense organs. The sense organs and the sympathetic nervous system then transmits impulses to the middle of the brain stem. The brain stem alert's the brain about the impending threat of challenge by activating the reticular formation. The reticular formation either carries neural instructions from the brain to the target organs, muscles and glands by sympathetic nervous system thus mobilizes the body for defensive action, or it may carry neural instructions from the brain to the thalamus. At the thalamus, the higher regions of cerebral cortex, limbic system and thalamus sort this sensory information by interpreting the meaning of the potential stressor. In hypothalamus lies the periventricular nucleus (PVH), which contains endocrine neurons. The endocrine neurons release hormones which coordinate the activity of the endocrine system which is known to play a key role in response to stress.

Role of Sympathetic Nervous System

When faced with stress, the sympathetic nervous system, coverts anabolic metabolism into catabolic metabolism, which involves the breakdown of tissues to produce energy. Sympathetic nervous system sends signals to the adrenal gland to release hormones to cause a fight-flight response in which increase in heart rate, dilation of pupils, and secretion of stress hormones, slowdown of digestion process and increase in the blood flow to the muscles takes place. The stored energy is readily converted into a form in which it can be directly used by the muscles.

Role of endocrine system

Under stress, the pituitary gland sends messages to the hypothalamus, which stimulates the adrenal medulla to secrete epinephrine and nr-epinephrine into blood. Epinephrine and nor-epinephrine trigger a fight-flight response. Since both epinephrine, nor-epinephrine and sympathetic nervous system interact together in producing a fight or flight response, hence it is called as the Sympathoadrenal-medullary system (SAM). SAM is the body's initial response to stress.

However, Hypothalamic-pituitary-adrenocortical system (HPAC) is a delayed response to stress that restores the body to its baseline level called as

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homeostasis. HPAC involves the interaction between hypothalamus, pituitary gland and the adrenal cortex. It operates with the Central Nervous System stimulating the Hypothalamus to release Corticotrophin Releasing Hormone (CRH), which stimulates the production of Adrenocorticotrophic hormone (ACTH). ACTH activates the adrenal cortex to secrete corticosteroids. Corticosteroids are steroid hormones which are responsible for combating inflammation, promoting health and for mobilizing the body's energy resources.

Endocrine system works by a feedback mechanism which involves cortisol (a hormone secreted by the adrenal gland). Cortisol results in an increase in the level of glucose in blood, stimulates the breakdown of protein into Amino Acids and inhibits the uptake of glucose by body tissues but not by the brain. However, too much of cortisol leads to hypertension, decrease in the body to fight infection and results in psychological problems like depression. Cortisol acts using a feedback system by acting back on the hypothalamus and pituitary to suppress the release of CRH and ACTH. As ACTH levels decrease in blood, adrenal cortex shuts down its production of Cortisol.

Stress and the Immune System

Through the hypothalamic-pituitary-adrenal glands stress can increase corticosteroid levels and can lead to serious endocrine imbalance thus impairing the functioning of an individual's immune system. The hypothalamus releases hormones that stimulate the pituitary to release other hormones that regulate bodily functions like tissue hormones and bone growth and reproduction. The suppression of the immune system under chronic stress can have long term negative effects on one's health making an individual susceptible to external diseases. Increase in corticosteroids can reduce an individual's immunity to disease by decreasing lymphocyte metabolism.

Changes in the immune system are known to be caused by several stressors like unemployment, divorce, occupational stress etc. as it causes reduction of Lymphocytes, natural killer cells, T-cells and White Blood Cells (WBC). Two hypotheses, namely the direct effect hypothesis and the indirect effect hypothesis, have been proposed to explain how stress causes suppression of the immune system. Direct effect hypothesis sees immune-suppression as a body's natural response to stress caused by damage to Hypothalamus; activation of the antigen T cells and HPAC axis; increase cortisol, epinephrine and decreased production of T-cells, Lymphocytes, natural killer cells, WBC's etc. Indirect effect hypothesis states that stress influences immune system by encouraging maladaptive behaviours like smoking, alcohol drinking, fragmented sleep, poor nutrition etc that disrupt immune functioning. It sees immune-suppression as an after effect of stress response.

Procedure

The students were nicely greeted. The demographic form was filled before the assessment. Then, students were given instructions, purpose of the study was informed. The SSI inventory is comprised of 40 items in total, to measure 4 sub-

scales – physical, interpersonal relationship, academic and environmental factors, each containing 10 items. It will take approximately 10 – 15 minutes to complete the questionnaire.

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Blank Result Table:

Subscale 1: Physical

Item	Score
Headache	
Back Pain	
Sleep problem	
Difficulty breathing	
Excessive worry	
Stomach pain/nausea	
Constant tiredness/fatigue	
Sweating/sweaty hands	
Frequent cold/flu/fever	
Drastic weight loss	

Subscale 2: Interpersonal Relationship

Item	Score
I feel difficult to meet my high parents' expectations	
My parents treat me as a helpless person	
I feel guilty if I fail to fulfil my parent's hope	
My parents wish only for my success	
I find difficult to get along with groupmates in doing academic task	
My friends did not care about me	
I feel disturbed when having problem with my boyfriend/girlfriend	
My families are not supportive	
My lecturers/teachers are not supportive	
I feel frustrated by the lack of faculty	

Subscale 3: Academic

Items	Score
I have financial problem because of the expenses of the university	
I find difficult to juggle time between study and social activity	
I feel nervous delivering the class presentation	
I feel stressed as submission deadline neared	
I feel stressed to sit for examination	
I find difficult to juggle time between study and society involvement	
I loss interest towards courses	
I feel burden of academic workloads	
I feel stressed dealing with difficult subjects	
I feel difficult in handling my academic problem	

Subscale 4: Environmental

Items	Score
I have transportation problem	
I feel stressed with bad living condition of hostel	
Surrounding noise distracted me	
Pollution makes me uneasy	
Hot weather makes me avoid to go out	
Messy living conditions distracted me	
I feel frustrated of inadequate campus facilities	
Crowding makes me feel uneasy	
Waited in a long line make me feel uneasy	
I feel scared being at the insecure place	

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Scoring:

The scale was designed using an ordinal scale and the scoring was rated on a 4-point Likert scale. 'Never' score 1, 'Somewhat frequent' score 2, 'Frequent' score 3 and 'Always' score 5.

Result and Discussion:

The following is the scoring scale:

Total score	Level of Stress
4– 80	Mild stress
81 – 121	Moderate stress
122 - 160	Severe stress

EXPERIMENT 14
ANGER EXPRESSION SCALE FOR CHILDREN

NOTES

Aim: To assess how children express their anger

Introduction:

Anger expression can classify into the following three types:

1. Aggressive
2. Passive
3. Assertive

Aggressive anger: This type of anger is expressed in order to hurt the other person, emotionally, physically or psychologically. For instance, yelling.

Passive anger: This type of anger is internalised when a try to ignore the circumstance that made him/her angry. For instance, holding a grudge, being mean, spreading fake news, avoiding the person etc.

Assertive anger: One of the best ways to express what you are feeling. Because the anger is expressed freely and in a non-threatening way.

Procedure: Both, the children and parent participants completed the assessment individually and separately. For the children from primary all the items were read aloud, and help was provided to them when required. Children from middle and high school completed the test on their own. This 39-item measure (Nelson & Finch, 2000) was designed to provide an assessment of children's anger reactions, including the frequency, intensity, and duration of the anger response as well as the mode of expression and effect on personal relationships. The ChIA was developed for use with children between the ages of 8 and 16 and has been evaluated in samples ranging from ages 6 to13 years (Flanagan & Allen, 2005). It yields a total score and four subscale scores: frustration, physical aggression, peer relationships, and authority relations. Only the total score was used for the present analyses. Internal reliability for the total scale is reportedly high (a¼.95; subscale coefficients ranged from .85 to .87), and the1-week test–retest reliability was .75 (Nelson & Finch,2000).

Instructions: The questionnaire consists of few statements which children and adults often use to describe themselves. Read each statement and circle the number which you feel is appropriate in your situation. We all feel anger from time to time, the only way we all differ from each other is how we act when we get angry. There are statements below which people use to describe their anger. Read

each statement carefully and circle the answer which describe you the most, when you feel angry.

1 = Almost Never

2 = Sometimes

3 = Often

4 = Almost Always

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Blank Result Table

SUBSCALE	SCORE
FRUSTRATION	
PHYSICAL AGGRESSION	
PEER RELATIONSHIPS	
AUTHORITY RELATIONSHIPS	
TOTAL	

Result:

Before initiating a complete CFA of all the items, a total correlation for each item was measured. Items which did not correlated at .30 or greater were removed from the assessment. Four items were removed as a result. The rest 26 items were kept and were further divided to assess the trait anger (10 items, expression of anger (6 items), anger in (4 items) and control of anger (6 items).

EXPERIMENT 15 KNOWLEDGE OF RESULT

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Aim: To study the effect of knowledge of result on the performance of my subject.

Hypothesis: Knowledge of result will have a positive effect on the performance of the subject.

Independent Variable- Giving knowledge of the work done by the subject.

Dependent Variable-Quality of the work done by the subject.

Material Required- plain sheet, pencil, ruler, screen

Details of the subject-I

Name-

Age-

Sex-

Class-

Details about the Subject-II

Name-

Age-

Sex-

Class-

Introduction

Knowledge of results is a term in the psychology of learning. A psychology dictionary defines it as feedback of information: "(a) to a subject about the correctness of (their) responses; (b) a student about success or failure in mastering material."

Knowledge of result means information or knowledge about the errors in performing a task.

The effect of knowledge of result on learning was experimentally studied by Thorndike.

Procedure

- Bring the subject to the laboratory and make the subject seated comfortably.
- In controlled condition, give him a plain paper sheet with two dots marked on the paper which are 5 inches from each other. Ask him to draw line and try joining the two dots with blind folded eyes. While drawing no feedback regarding his work is given to him.
- In each trial, the length of the line drawn by the subject would be measured and how far he is from the other dot will be noted. In this way, 10 trials will be conducted.

The experimental condition will start in the same way, the only difference is that the subject will be given the knowledge of his work in progress.

After the experiment, analysis and interpretation of the data will be done. Consequent to this, inference about the experience in form of graphic representation will be given. An introspective report will also be taken from the subject.

Instructions:

'I will be giving you a simple task in which you have to draw line of 5 inches with blind folded eyes.'

Precautions:

- Make the subject draw line in same direction.

Experimental Design

Condition	Total Error Subject A	Total Error Subject B	Average Error	Difference
Controlled Condition				
Experimental Condition				

Data Chart Showing the no. of Errors with Knowledge of Result and Without Knowledge of Result-

S. No	Subject A Error without knowledge of results in inches	Subject A Error with knowledge of results in inches	Subject B Error without knowledge of results in inches	Subject B Error with knowledge of results in inches
Trial 1				
Trial 2				
Trial 3				
Trial 4				
Trial 5				
Trial 6				
Trial 7				
Trial 8				
Trial 9				
Trial 10				
Total				

Data Collection

Condition	Total Error Subject A	Total Error Subject B	Average Error	Difference
Controlled Condition				
Experimental Condition				

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Interpretation and Discussion

- Discuss the data collected, first subject wise then total of both subjects.
- Make graphical representation of the data.

Result

Hypothesis proved/not proved

Introspective Report

The subject writes few lines about his/her experience in doing the experiment.

EXPERIMENT 16 LEVELS OF ASPIRATION

Aim: To study the level of aspiration of the subject

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Introduction:

Variables - Independent Variable - Amount of work done in previous trial leading to goal setting in next trial.

Dependent Variable - Work done in current trial.

Level of aspiration refers to how far individuals set their targets for achievement. It is determined mainly by our experiences and past failures and successes, perceptions of our own abilities.

- Determinants of levels of aspiration
- Need of level of aspiration

Materials Required - 10 white sheets with 50 circles on each page, Pencil

Instructions: I shall be giving you a sheet of paper with circles drawn upon it. You have to draw four lines inside the circle so as to create a human like face upon it. The lines are to be drawn in a specific sequence – right eye, left eye, nose, and then mouth. Also, they are to proceed row-wise from left to right.

Procedure:

1. Bring the subject to the laboratory and make seat them comfortably
2. Give them one page with 50 circles and ask them to draw 4 lines in one circle and make a face. This shall be done for 30 seconds.
3. When this trial ends, count the number of faces made. Then, before starting the next trial, ask the subject to note down their expectation as to the number of faces they may make. Give them another sheet and proceed with the instructions mentioned in point 2.
4. Repeat steps 2 and 3 until all 10 sheets are filled with expectations for each.
5. Thank subject for cooperation and escort out of the room.
6. After the subject leaves, begin analysis.
7. If the subject expects more than the total work done each time, their GDS (Goal Discrepancy Score) will be +ve i.e., their aspiration is high. Similarly, if the subject reaches set goals, their LOA is high, and performance is good.
8. Also take an introspective report from the subject.

NOTES

Trial Number	GDS	Goal Reached
Practice		
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Addition		
Subtraction		
Mean		
Interpretation		

Interpretation & Discussion

Calculate the difference between expected and result of previous attempt will be done for each trial. This is the Goal Discrepancy Score. If the difference comes out positive, the subject's LOA is high therefore aspiration is high. If the difference is zero i.e., the subject scores as they had expected, their performance is good, and they have a good LOA as well.

But, if the GDS is negative, it shows that the person has a fear of failure and that is the reason that they set their goals low.

If the GDS in unusually high, it signifies unrealistic goals.

Discussion for each of the trials shall be done separately and then add all of their differences in the end.

Result – The level of Aspiration of the subject may be high or low.