A
FIELD REPORT
ON
THE BOTANICAL STUDY TOUR AT SINGDA DAM

Submitted To

The Department of Botany, YK College, Wangjing

In partial fulfilment for the requirements of the
2nd Semester of BSc Degree Course
under Manipur University

Submitted by

Name: ELANGBAM MISON SINGH

Class B Sc II Roll no. 9104235

Regd. No. 19880037 of 2019

Examined

DEPARTRMENT OF BOTANY
Y.K. COLLEGE, WANGJING
2020

CONTENTS

CERTIFICATE

This is to certify that Mr./Ms E. MISON SINGH bearing MU Roll No. 9104 235 and Regd. No. 19880037 of 2019 BSc II Sem of Botany Department took part in the Botanical Study tour at Singda Dam held on 15/03/2020. organised by the Department of Botany, Y.K. College, Wangjing.

The field report submitted is a bonafide field research worked.

Teacher –in – Charge

18/3/2020

Head
Department of Botany
Y.K. College, Wangjing

Date

Place: Wangjing

ACKNOWLEDGEMENT

I express my sincere gratitude first of all to Dr. E. Maniton Singh, Assistant Professor, Department of Botany for his overall guidance and supervision in course of the field work from the beginning up to the end and as well as his painstaking help during the preparation of this report.

I also express my heartfelt thanks to Dr. Sushma Ph, Head, Department of Botany, YK College, Wangjing for her guidance and necessary facilities given to us to arrange the study tour.

Finally but not the least, I am also thankful to all my class mates and all those who rendered their support while undertaking this work.

Name: E Mison Singh.

Class B Sc II Roll no. 9104235

Regd. No. 19880037 of 2019

INTRODUCTION

Botanical study tour is of great significance in the study of Botany. Studies of theories and Practical courses in the classroom and laboratory are mechanical and stero-typed in case of Botanist in absence field observation because life is composedof flora and fauna. Things becomes clearer and meaningful. When the fauna discussed as per syllabus of B.Sc. are actually seen in their own environment. The laboratory or demonstration materials of frequently we see coming out of cans or jars or bottles or dry stuffs are all from some particular places of the environment

Botanical study tour is improved to all the student in he field of flora and fauna of that place. It also gives us the topographical background of those area which have been visited thereby making us to understand fully habitat and their relationship to their environment.

Finally, through own visit to Singda Dam, we can see and observed about different places and flora of sceneries beauty and can be established communicating with different people of different places and mode of life Such an exchange between us and other people with strengthen our knowledge of unity. So we have to participate all such study tour.

THE STUDY TOUR IN BRIEF

We the Botany student had conducted a study tour at Singda Dam to see the natural vegetation of the area. 40 students went to Singda Dam. The geographical situation of Singda Dam is lat. 23°41' to 25°41'N and long. 93°60' to 94°48' and 160 m. high above the sea levels. We hired a bus and left the College at 8 a.m. We arrived there at 10.00 a.m. It is far away 14 km from Imphal and 41 km. from our College.

In this place different kind of flora are found. We took snap of different flora of different place. Mainly more than 40 different were collected from the hill slope.

Most of our student collected different plant for Laboratory experiment. We have launch there at 12.30 p.m. then we take rest for an hour. then turn back for home at 2 p.m.

LIST OF SPECIMENS COLLECTED FROM THE SITE WITH THEIR FAMILIES.

A number of terrestrial and aquatic plants belonging to different families were observed. They were collected and brought to the laboratory. Some of them were stitched on the herbarium sheets and some are in collecting bottles depending upon their type. The name with their families are listed below:

Sl.No.	Name of the species	Families
1.	*Spyrogyra species*	*Chlorophyceae*
2.	*Netella species*	*Chlorophyceae*
3.	*Polyporus species*	*Basidiemycetes*
4.	*Marchantia species*	*Marchantiaceae*
5.	*Anthoceros species*	*Anthocerotae*
6.	*Polytrichum species*	*Polytrichaceae*
7.	*Equisetum arvense*	*Equisetaceae*
8.	*Pinus Keysia*	*Pinaceae*
9.	*Adiantum coudatum*	*Pteridaceae*
10.	*Gnaphalium species*	*Asteraceae*
11.	*Sonchus brachgotes*	*Asteraceae*
12.	*Artemisia vulgaris*	*Asteraceae*
13.	*Phragmites karka*	*Poaceae*
14.	*Bambusa species*	*Poaceae*
15.	*Phyllanthus amblica*	*Euphorbiaceae*
16.	*Parkia roxburghii*	*Mimosaceae*
17.	*Grewia microcos*	*Teliaceae*
18.	*Wehlandia grandis*	
19.	*Jotropa curcus*	*Euphorbiaceae*
20.	*Eupatorium burmanicum*	*Asteraceae*

CONCLUSION

Taxonomic observation on the local vegetation helps in understanding the nature of vegetation of the particular area. It gives an idea of the range of distribution of species, phylogeny and also the flowering and fruiting time.

To acquire the practical knowledge and to understand the implicit and explicit parts of taxonomical study, field study of plants in their natural habitat is must. The practical knowledge acquired through direct observation and physical participation has provided a good opportunity of variety of theoretical explanation given in books and classroom.

BOTANICAL FIELD STUDY OF LOCAL VEGETATION OF KHOUPAM HILL

A

FIELD REPORT

Submitted
in partial fulfilment for the requirements of
the 3rd semester BSc degree course
under Manipur University

Submitted by

Name: Elangbam Jotin Singh

Class B.Sc III **Roll no.** 2105740

Regd. No. 18870023 **of** 2018

Examined

DEPARTRMENT OF BOTANY
Y.K. COLLEGE, WANGJING

2019

Contents

CERTIFICATE

This is to certify that Mr./Ms E. Jatin Singh bearing MU Roll No. 8105740 and Regd. No. 18870023 of 2018 BSc III Sem of Botany Department took part in the Botanical Study tour at Khoupam Hill, Manipur on 2/11/2019. organised by the Department of Botany, Y.K. College, Wangjing.

The field report submitted is a bonafide field research worked.

Teacher –in – Charge

Sushma Ph 5/11/2019
Head
Department of Botany
Y.K. College, Wangjing

Date

Place: Wangjing

Examined

Acknowledgement

I express my sincere gratitude to Toperjeet Singh Seram, Assistant Professor, Department of Botany for his valuable suggestions, guidance, healthy criticisms, intensive encouragement throughout the course of the study tour and as well as his painstaking help during the preparation of this report.

I also express my heartfelt thanks to Dr. Sushma Ph, Head, Department of Botany, YK College, Wangjing for her advice suggestions and necessary facilities given to us arrange this study tour.

Finally but not the least, I am also thankful to all my class mates and all those who rendered their support while undertaking this work.

Name: Elangbam Jotin Singh
Class B Sc III Roll no. 8105740
Regd. No. 18870023 of 2018

A FIELD OBSERVATION OF LOCAL VEGETATION OF MOREH AREA

Submitted to:

THE DEPARTMENT OF BOTANY
Y.K. COLLEGE Wangjing

(In partial fulfillment for the requirement of the 6th Semester of B.Sc. Botany Honours Degree Course under Manipur University)

Submitted by:

Sapam Indira Devi
B.Sc 5th sem
Roll no: 7107149

THE DEPARTMENT OF BOTANY

Y.K. COLLEGE WANGJING 2020

Certificate

This is to certify that Shri/Smt/Km Sapam Indira Devi

bearing M.U. Examination Roll no 710149 and Regd. No. 17850248

of 2017 B.Sc. Bsc. 5th sem of Botany

Department took part in the Botanical Study Tour at Moreh, Chandel sponsored by the Department of Botany Y.K. College, Wangjing on 13/11/2019.

He/She took keen interest in the study tour and help in making it a grand success.

Teacher in charge
Of the study tour

Date: 20/11/2019
Place: Y.K. College Wangjing

Countersigned

Head of Department of Botany
Y.K. College, Wangjing

CONTENTS

INTRODUCTION

The observation of flora and fauna in their natural habitat is important and useful for study of natural sciences because it enhanced the knowledge of the fixing things, which have learned in the classroom. In fact, nature itself is a living laboratory where study and observation for obtaining and gaining knowledge in various skills.

The primary knowledge of things is required for study in a particular field. In short, the theoretical classes and field study are supplementary in each other, the combination of which provides valuable knowledge.

The conduction of a study tour on the flora in their natural habitat in an organised manner is a valuable part to be acquainted with and to be acquired by the student of Life Science. It also helps us in underlying the inter and intra-relationship with environment. In addition to it the peculiar characteristics of plants and animals can be observed only in the field study. It also helps us in understanding the human plant relationship that exists in the rural areas of the country. It provides important knowledge about the different uses and importance of many ethnically important plants.

ACKNOWLEDGEMENT

I would like to express my humble gratitude to the learned teachers of the Department of Botany for guidance and valuable advice while conducting the field works at Moreh and Tamu area and for helping me in preparing this field report.

I am also thankful to the Principal for providing financial assistance for the tour.

My thanks also goes to the Manipur University, Canchipur for the inclusion in the syllabus a part of field study tour which provide ample scope in the study of natural sciences.

Lastly but not the least, I also thank my colleagues who accompanied in the trip for their valuable suggestions and cooperation rendered during the field work which resulted in the completion of the entire work.

ACCESSORIES FOR COLLECTION

1. A note book and a pen
2. A pair of scissors
3. A knife
4. Polythene bags and rubber bands
5. Specimen bottles
6. Formaldehyde
7. Camera
8. Magnifying lens
9. A pair of forceps
10. Old news papers

VEGETATION

Plant Group	Scientific Name	Local Name
1. Mimosaceae	*Mimosa pudica*	Leikang Ekaithabi
	Acacia arabica	Chigonglei
2. Caesalpiniaceae	*Cassia tora*	Thaonam
3. Meliaceae	*Toona ciliata*	Tairen
4. Anacardiaceae	*Mangifera indica*	Heinou
5. Papilionaceae	*Crotolaria juncea*	U-hawaimaton
6. Myrtaceae	*Eucalyptus globulex*	Nasik
7. Rosaceae	*Rubus* sp.	Heijampet
	Fragaria vesca	Ching heirongkak
8. Metastomaceae	*Melastoma malabathrieum*	Yachubi
9. Cucurbitaceae	*Cephalandra indica*	Tayal
10. Umbelliferae	*Hydrocotyl javanica*	Lai peruk
	Oenanthe javanica	Koinprek
	Centella asiatica	Peruk
11. Solanaceae	*Solanum nigrum*	Leipung Khanga
12. Polygonaceae	*Polygonum hydropiper*	Natonsabi
	Polygonum barbatum	Yelang
	Rumex nepalensis	Tarong khongchak
13. Verbenaceae	*Vitex trifolia*	Uriksibi
	Lantana camara	Thirei
14. Labiatae	*Leucas aspera*	Mayang lembum
15. Amaranthaceae	*Amaranthus spinosa*	Chengkruk
	Altemanthera sessiles	Kabo napi
16. Asteraceae	*Gynura angulusa*	Tera paibi
	Ageratum conyzoides	Khongjai napi
	Eclipta alba	Uchi Sumbal
	Teetona grandis	Teak

Monocotyledonea		
17. Musaceae	*Musa paradisica*	Laphu
18. Zingiberaceae	*Costus speciocus*	Khongbal takhelei
19. Cyperaceae	*Cyperus rotundus*	Sembang kakthum
	Scirpus sp.	-
20. Graminaceae	*Cynodon dactylon*	Pakhra lukhra
	Crysopogon sp.	Tingthou
	Cymbopogon nardus	Charot
	Phragmites karka	Tou
	Setaria pallidefusea	Hup
	Erianthus arundinaceous	Singut
	Zizania latifoloa	Ishing kambong

CONCLUSION

The sites selected for the study have dense forests and devastated areas where we could see various types of plant species ranging from algae up to the monocotyledon.

In the field demonstration and the discussion we are held regarding the study and collection of the specimen. The importance of the field study is well understood and imparted knowledge of the subject. It would have remained incomplete unless the field study is conducted. It become clear when the plants are observed in their natural habitats. The visit provides much impetus to us about many information exceeding from what we have learnt from the classroom.

The sites we visited for the study is highly disturbed and would become a vanished site due to exploitation of mankind unless immediate remedial step is taken up. So, it is high time to generate Protective Area Scheme and programme to keep environment intact along with natural flora and fauna for the future generation.

PRACTICAL NOTEBOOK

FOR
EDUCATION
YK COLLEGE WANGJING

Partial ~~Partial~~ fulfillment of the Requirement for Awarding the Degree of BA - 6th Semester of Education
2019-20

Under the Guidance
of Dr. H Debala Devi
Asst Professor
Dept of Education

Submitted By

Pritina Soubam
M.U.Roll: 7213934
Regd. No: 17850179/2017

DEPARTMENT OF EDUCATION
YK COLLEGE
WANGJING

CERTIFICATE

Date: / /20

This is to certify that Mr./Ms. Pritina Soubam

of Class BA 6th Sem Division _____ Roll No. MU 7213934

has satisfactorily completed the course experiments in practical

_____

in the academic year of 20___ / 20 ___

in the Institution V.K College

_____ _____ _____

Teacher Examiner Principal

Examined

Institution Rubber Stamp

INDEX

Sr. No.	Experiment	Page	Date of Experiment	Date of Submission	Remarks
1	Immediate memory span and digits	1-2			
2	Immediate memory for non-sense syllable.	3-5			
3	Free Association Test	6-8			
4	Controlled Association Test	9-11			
5	Alexander pass along Test	12-14			
6	Mirror Drawing Apparatus	15-18			
7	Mental Fatigue	19-21			
8	Colour Preference test	22-24			
9	Human Maze learning	25-28			
10	Ink Blot Test.	29-32			

CHAPTER - 1
FOR
IMMEDIATE MEMORY SPAN FOR DIGITS

Sl no	Digits of Number													
1	4	9	2	5	7									
2	6	1	9	5	3	2								
3	7	3	6	4	2	8	1							
4	4	9	3	5	8	7	2	6						
5	8	7	9	6	4	5	1	3	1					
6	1	6	0	8	5	3	7	9	4	2				
7	2	6	3	7	1	4	6	5	5	0	9			
8	3	17	8	1	6	0	7	7	8	2	7	6		
9	8	5	6	14	7	3	4	4	7	4	8	4	7	
10	6	1	0	3	5	11	6	6	0	4	2	5	3	5

TABLE NO. 1

IMMEDIATE MEMORY SPAN FOR DIGITS

OBJECTIVE :→

To determine the memory span of a subject by using digits.

MATERIALS REQUIRED:

1) SUBJECT :-

Name : Pritina Soubam
Qualification : Student
Age : 21
Sex : Female
Time : 10:30 am
Place : Education department
Date :

2) A chart of digits ranging from 5 to 14 digits

3) A record sheet.

4) Pencil, Pen, Scale, eraser etc.

5) Stop watch.

Examined

Teacher's Signature:

PROCEDURE :

Before starting the experiment the subject was asks to sits comfortable in a quite corner of laboratory room of Education Department facing the experiment. A wooden screen is kept in between the subject and the experiment. After these, the subject was given the following instructions as "Be Attentive and listen carefully, concentrate your mind. I will speak out the content numbers and you must reproduce". Then the experiment started the numbers of 5 (five) digits and produce upto the 8 (eight) digit. In this experiment the experimenter should read out the number slowly and with a clear voice.

The experiment will proceed upto the numbers of certain digits which the subject can produce upto 9 (nine) digits of serial no. and the proceed upto 10 (Ten) digits of serials no. 6 (six).

RESULTS :->

As the subjects can reproduce upto 9 (nine) digits of serials no. 5 and fail to produce the number of 10 (ten) digits of serial no. 6. The immediate memory span for digits of this subjects is normal.

The result of the experiment is shown in Table no II.

Teacher's Signature:

Sl no.	NO. OF DIGITS	RESPONSE
1	5	CORRECT
2	6	CORRECT
3	7	CORRECT
4	8	CORRECT
5	9	CORRECT
6	10	INCORRECT
7	11	
8	12	
9	13	
10	14	

IMMEDIATE MEMORY SPAN FOR NON-SENSE SYLLABLE

OBJECTIVE -:

To determine the memory span of a subject by using non-sense syllables.

SUBJECT -

Name - Pritina Soubam
Qualification - Student
Age - 21
Sex - Female
Time - 10:30 am
Place - Education Department
Date -

MATERIAL REQUIRED:

1) A chart of non-sense syllables starting from 3 words upto serial no. 12

2) A record sheet.

3) Pencil, Pen, eraser, scale etc.

Teacher's Signature:

CHART FOR NON-SENSE SYLLABLES

Sl no	Non - Sense Syllables
1	Bak, Dup, Sip
2	Lep, Pap, Jox, Fip
3	Sik, Nek, Mon, Kap, Guz
4	Nom, Jim, Ref, Soy, Duf, Paq
5	Saz, Laf, Dum, Jan, Fiy, Maw, Joy
6	Kan, Jig, Buk, Jop, Gok, Mac, Nip, Sip
7	Hek, Jum, Zal, Puk, Kal, Zic, Kat, Zin
8	Hek, Jum, Mit, Pak, Kok, Pap, Nup, Tok, Div
9	Per, Paz, Dur, Sar, yip, Mer, Jor, Sib, Pic, Fro, Hix
10	Half, Barc, Kox, Juf, Kig, Pip, Bap, wip, Kuk, Net, jon
11	Gor, Bur, Jex, Sur, Jep, Pas, Sep, Kuf, Mok, Bax, Def, Hep, wok
12	Jon, Tef, jay, Sak, Pak, Duk, Sil, Jar, jeck, Hex, Jex, Jew

PROCEDURE

Before starting the experiment the subject was asked to sit comfortably in a quite corner of the laboratory room of education department facing the experimater. A wooden screen should be kept in between the subject and the experimenter. Then the experimenter given the following instruction to the subject as: Be attentive and carefully concentrate your mind. I will read out the non-sense syllables raw by raw, you are required to reproduced them as soon as possible".

The experimenter ask the subject to sit comfortably on a chair facing each other.

After giving the subject as signal to get ready. The experimenter read out the first non-sense syllables ward of the list for the subject to reproduce. And the experimenter presents the next 4 wards so the procedure is continued until the Subject fails to reproduce the words correctly. In this experiment. The subject can reproduce upto 7 words and its experimenter produce upto 8.

RECORD SHEET

Sl no	No of Words	RESPONSE
1	3	CORRECT
2	4	CORRECT
3	5	CORRECT
4	6	CORRECT
5	7	CORRECT
6	8	INCORRECT
7	9	
8	10	
9	11	
10	12	
11	13	
12	14	

Table - 4

RESULT :->

The subject can reproduce upto 7 words correctly and fails to reproduce the 8 words. So, the immediate memory span of the subject is normal or average the result of this experiment is shown in table no. 04.

Examined

Teacher's Signature:

Sl no	Stimulus	1st Response	time taken	Remark	2nd Response	time taken
1	Apple	Fruit	1 sec	Easily	Mango	1 sec
2	Animal	Jungle	20 sec	Easily	Tiger	12 sec
3	Boy	Child	8 sec	"	Girl	8 sec
4	College	Institution	2 sec	"	Student	3 sec
5	City	Tower	1 sec	"	Bombay	5 sec
6	Door	Window	1 sec	"	Screen	2 sec
7	Dress	T-Shirt	1 sec	"	Smart	1 sec
8	Electric	Bulb	1 sec	"	Wire	1 sec
9	Exam	Test	1 sec	"	Examiner	1 sec
10	Bag	Purse	1 sec	"	Money	1 sec
11	Father	Mother	1 sec	"	Parents	1 sec
12	Flower	Rose	1 sec	"	Lotus	1 sec
13	Garden	Flower	1 sec	"	Beauty	1 sec
14	Gate	Door	2 sec	"	Outside	2 sec
15	Holiday	Sunday	1 sec	"	Free	1 sec
16	Hall	Cinema	1 sec	"	Drama	1 sec
17	Ink	Pen	1 sec	"	Pot	1 sec
18	Insect	Bee	1 sec	"	Butterfly	1 sec
19	Jungle	Tree	1 sec	"	Animal	1 sec
20	Jug	Water	2 sec	"	Mug	3 sec
21	Rings	Finger	2 sec	"	Queen	5 sec
22	Kite	Fly	1 sec	"	Children	1 sec
23	Bright	Sun	1 sec	"	Morning	1 sec
24	Light	Bulb	1 sec	"	Day	1 sec

Free Association Test

OBJECTIVE :

To study the nature of the free association of the subject.

MATERIALS REQUIRED:

A list of 50 stimulus words as shown in figure a stop watch wooden screen and record sheet.

SUBJECT :

Name → Pritina Soubam
Qualification → Student
Age → 21
Sex → Female
Time →
Place → Education Department
Date →

PROCEDURE :

Before begining the experiment on free association test, a list of 50 words, some animals and some furniture were prepared by the experiments in a sheet of paper as shown in table no.

Teacher's Signature:

25	Lesson	Chapter	3 sec	Uneasy	Student	3 sec
26	Mountain	Hill	2 sec	Easy	Himalaya	2 sec
27	Night	Dark	1 sec	"	Scared	2 sec
28	Noon	Evening	1 sec	"	Lunch	2 sec
29	Ox	Cow	1 sec	"	Farmer	1 sec
30	Oxygen	Air	1 sec	"	Nitrogen	1 sec
31	Pencil	Book	1 sec	"	Eraser	1 sec
32	Practical	Science	1 sec	"	Notebook	1 sec
33	Question	Answer	1 sec	"	Pen	2 sec
34	Qualified	Doctor	1 sec	"	Educated	3 sec
35	Rice	Curry	1 sec	"	Paddy	1 sec
36	Restaurant	Coffee	3 sec	Uneasy	Omlet	1 sec
37	School	Student	1 sec	Easy	Teacher	1 sec
38	Small	Big	1 sec	"	Fat	2 sec
39	Temple	God	1 sec	"	Prayer	1 sec
40	Time	Watch	1 sec	"	Hour	1 sec
41	Uncle	Aunts	1 sec	"	Relatives	1 sec
42	Van	Transport	1 sec	"	Car	1 sec
43	Vegitable	Cabbage	1 sec	"	Tomato	1 sec
44	War	Soldier	1 sec	"	Revolution	2 sec
45	Water	Liquid	1 sec	"	Ice	1 sec
46	X ray	Patient	1 sec	"	Doctor	1 sec
47	X mass	Christmass	1 sec	"	Tree	1 sec
48	Yatch	Sea	1 sec	"	Board	2 sec
49	Yen	Rupee	1 sec	"	Japan	2 sec
50	Unity	Strength	1 sec	"	Same	1 sec

Next the experimentor selects a quite and will lighted corner of the laboratory room. The subject was asked to sit comfortably on a chair facing the experiments. A wooden screen was kept in bitween the subject and the experimentor. A wooden screen was kept in between the subject and the experimentor. So, that the subject could not see the prepared stimulus words. Then the experiments gives instruction to the subject as.

"I will speak out some 50 words one after another and you are to respond immediatly with the first word that comes to your mind on learning the stimulus words and it must be related with the stimulus and "Then the experiments read out 50 words in a clear voice one another with care. The experimentes records the response words of the subject. The reaction time on the record sheet the experiments also record. The observation as shown in the record.

DISCUSSIONS / OBSERVATION

From the above experiment it is found that in a process of free association the assumption being that the series is not determind or directed by any concides. determination of the mind is allowed to flow freely, but This is not so free in the sense that the connected ideas are suggested merely by accident.

Teacher's Signature:

It is obvious that no association is entirely free. In this experiment the highest reaction time is 30 sec and the lowest reaction time is 1 sec. Sometimes the subject may fail to give a response word even to a simple stimulus word this failure is after due to emotional blocking and disturbances. Sometimes the blocking may very and may delay the response and the subject may take an abnormally long time to from an association.

RESULTS:

The result of the experiment is shown on the record sheet.

CONTROLLED ASSOCIATION TEST

INTRODUCTION :

In controlled association the subject is instructid to response with the single response within a specific class or categories to which he is to restrict himself.

Many response become possible against each stimulus but a limit is for controlled association of the limit compute the subject for only one response. Then the association is known as controlled association.

OBJECTIVE :

To find out the response of the subject in a controlled situation against the stimulus work.

SUBJECT :

Name : Pritina Soubam
Qualification: BA 6th Semester
Age : 21
Sex : Female
Time : 11:30 am
Place : Education Department
Date :

Teacher's Signature:

MATERIALS REQUIRED :→

Four list of association words each having ten words stop watch, pen, paper etc.

PROCEDURE :

In this experiment, the subject has to response to each problem immediately after its answer comes into the mind. Each of the experiment is taken up one by one just as at one time the words having similarities are taken up. Then species given genous specify and opposite words.

The subject is properly instructed the nature of fourtest and how to answer on them. After saying ready the experiment is started by giving stimulus words one by one. It gives the subject by giving stimulus words one by one, the subject is written down in the sheet along with response time against each problem. whether the response giving by the subject is right or wrong or easy or difficult are well noted down in the sheet. At the end of the experiment the total response time is calculated.

RESULT:

The average reaction time has been calculated and result of the classes is also tabulated in table no. the average reaction time for all the four series have been compared. It is found that as shown in the opposite. The average reaction time decrease as the degree of controll increase. This shows the subject have natural thinking capacity.

The fact may be varified the response time to another subject and with the result of some other identical experiment.

Teacher's Signature:

Sl no	Stimulus	Response	Reaction Time	Sl no	Stimulus	Response	Reaction Time
1	Wine	Liquid	1 sec	1	Reptile	Wild	1 sec
2	Sea	water	1 sec	2	Flower	Rose	1 sec
3	Wood	Tree	1 sec	3	Vegetable	Mustard	1 sec
4	Ball	round	1 sec	4	Animal	Tiger	1 sec
5	Cup	Mug	1 sec	5	Bird	Parrot	1 sec
6	Book	Paper	1 sec	6	Cloth	Shirt	1 sec
7	Water	Clock	1 sec	7	Fruit	Mango	1 sec
8	Dark	Black	1 sec	8	Games	Cricket	1 sec
9	Wave	Tide	1 sec	9	Insect	Bee	1 sec
10	Music	Song	1 sec	10	Furniture	Table	1 sec

10 sec

ALEXANDER PASS ALONG TEST

OBJECTIVE :

To determine in the subject the level of intelligence Quatient (I.Q) by using Alexander pass along performance (Test).

SUBJECT:

Name - Pritina Soubam
Qualification - Student
Age - 21
Sex - Female
Time - 11:15am
Place - Education Department
Condition - Normal
Date -

MATERIAL REQUIRED :

(i) Alexander pass along test Equipment
(ii) Stop watch
(iii) Stationary

PROCEDURE :

In the Alexander pass Along test there are small wooden piece of red and blue colour with the help of piece the subject has to reconstruct figure of various

dimensions. The nature of reconstruction ~~gradually~~ gradually becomes more difficult. There are 9 sub-test in this test. The design of the second and the third sub-test are shown on card.

Besides cards there are four pieces of red and blue which are kept in it. Some of the wooden pieces are square and rectangular shapes. In the expriment, the subject is required to place, the wooden pieces according to the design on the card. The subject has to complete each sub-test within a limited time and time taken is recorded with the help of stop watch.

After showing the above mention material to the subject was asked to sit comfortably and the following instruction are given to the subject. This experiment is being performed for measuring your level of intelligence. In the strays I shall place the red pieces of wooden square towards the blue border and when I say 'start' you have to takes the red pieces to the red border and blue to the blue boarder. In such manner, that no pieces come out of the strays. In the process of experiment you have not to do the experiment by passing the wooden pieces it in your hand. You have to perform 9 sub test. It is time limit. So you have not to watch time and have to finish each test soon as possible.

The subject started the experiment after he was asked to do so and stop watch was stoped as soon as the subject finish the first subtest and the actual time ~~table~~ taken by the subject was recorded in table no 8. The second subtest started and here too the actual time was noted in the same table against sub test 2. This way the subject did upto 7th sub-test easily.

RESULT:

According to score, the intelligence Quotient of the subject comes out to be 106.25. Thus the subject may be considered to have normal intelligence.

According to the manual through the subject is 20 years old. It'll be presented as only 17 years. Thus IQ of the subject is found to the normal.

Teacher's Signature:

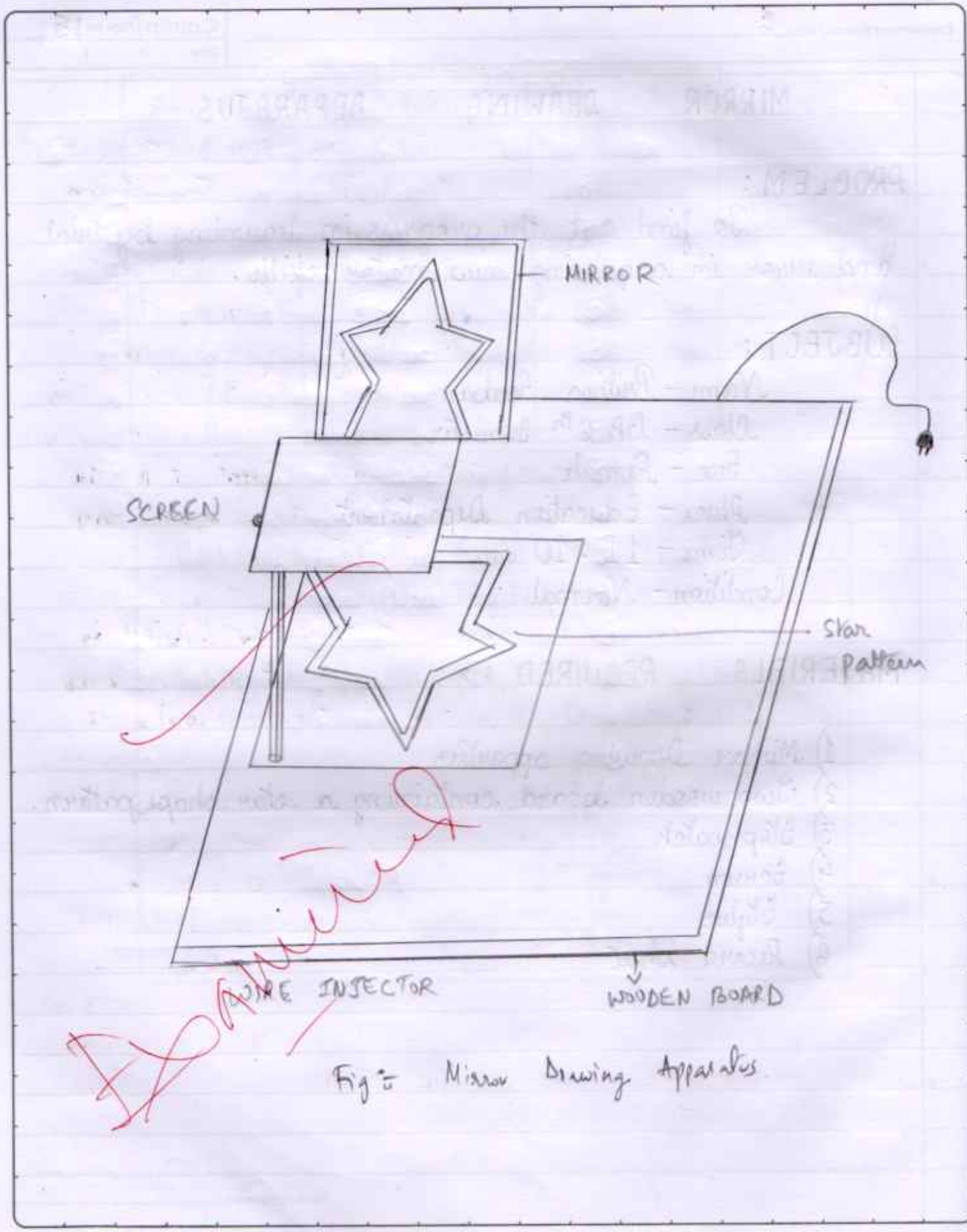


Fig :- Mirror Drawing Apparatus

PROCEDURE :

A mirror drawing apparatus is a simple arrangement by which a screen cover the figure to be traced by looking that mirror image. the angle of the screen can be adjusted so that while the subject can slip his/her hand within the screen area. the as the cannot directly see the given figure on a board but can easily look at the mirror image.

1) The mirror drawing apparatus is placed upon the table the stop watch and record sheet are kept behind the screen. the subject is sitted comfortably. A star on the board of the apparatus with the starting of the task near to subject. The following instructure given to the subject by the experimenter. I will ~~quick y- quick- guide~~ guide your hand with the stylus to the starting points of the you have to traced in the figure in a clockwise or anticlockwise direction your wrist and elbows should remain free from any contact with the board. If the stylus strays outside the line, that will be counted as an error you should bring the stylus immediatidly within the line and continue to traced the figure ontils it is completed. Then I will remove this and replaced with a new star figure and you will try again. You will take 15 treats and then you can rest".

Teacher's Signature:

RECORD SHEET

No of trial	Time taken	No. of error
1	4 min 10 sec	18
2	4 min 9 sec	17
3	4 min 5 sec	16
4	4 min 5 sec	15
5	3 min 30 sec	13
6	3 min 10 sec	10
7	3 min	8
8	2 min 4 sec	7
9	3 min 4 sec	6
10	2 min 15 sec	5
11	2 min 10 sec	4
12	1 min	3
13	1 min	2
14	2 min	1
15	0	0
~~16~~		

Table - 9

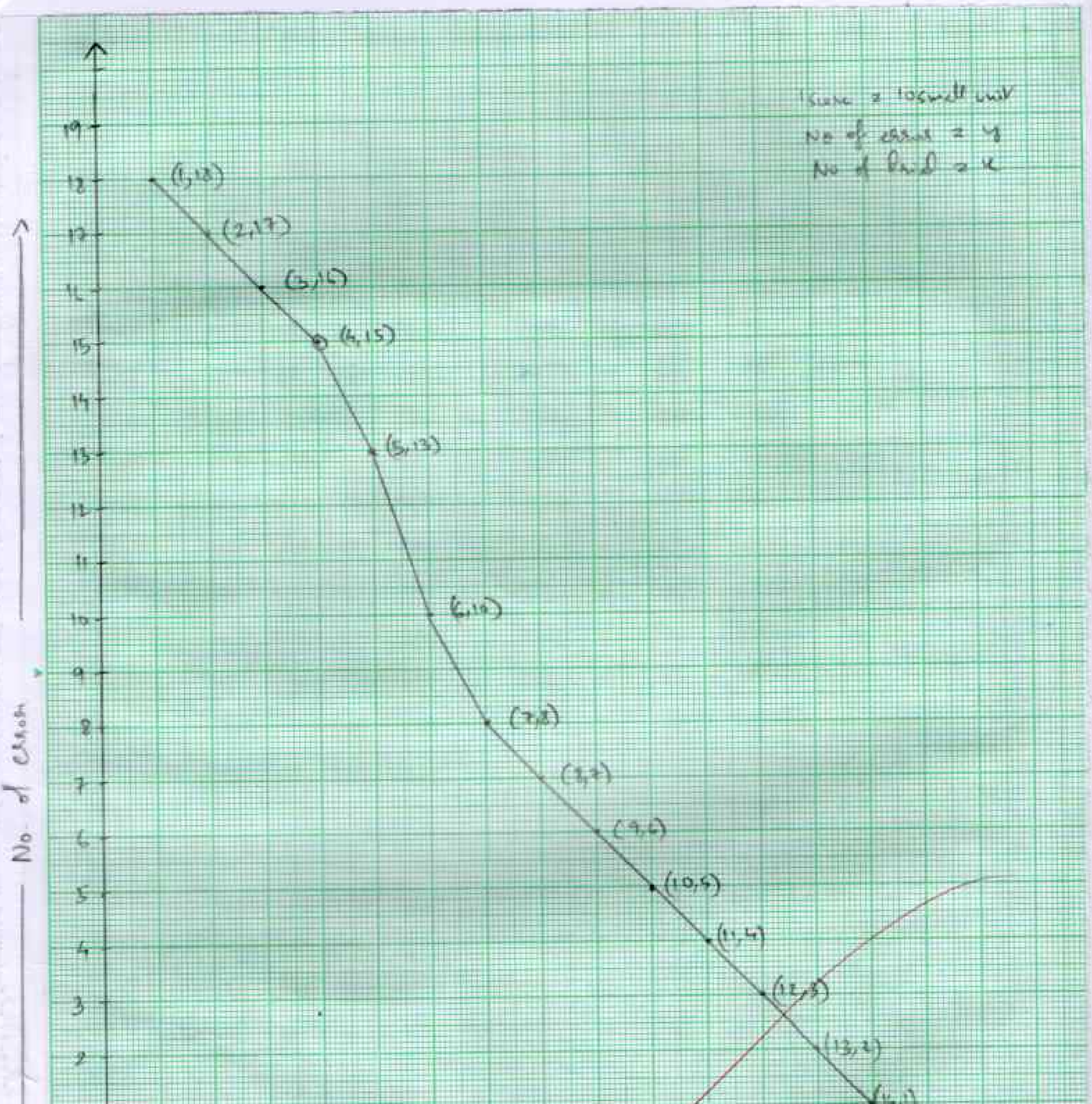
2) The time is immediately noted for tracing the star shape. The error are counted.

3) Take 15 trials with a rest period of 5 minutes, after a set of 5 trials and then take 15 trial with the figure given rest after 5 trials for 5 minutes.

The experiments prepare to graph paper of subject learning, a time graph showing the change in time and error graph showing the number of error from trial to trial. The experimenter also records for his or her objective observation of subject behaviour. now the subject attracks the problem and notes the mark of subject failing from his or her facial impression and remake made and other response. The table no 9 and graphical representation of the expriment is record sheet, time taken and number of the error was shown on page no 18.

RESULT :

The result of expriment is shown on page no.


No of error = y
No of trial = x
No of error
No. of trial
(1,18)
(2,17)
(3,16)
(4,15)
(5,13)
(6,10)
(7,8)
(8,7)
(9,6)
(10,5)
(11,4)
(12,3)
(13,2)
(14,1)
(15,0)

OBSERVATION :

From the result of experiment it has been found that the no. of trial increase while the no of error decreases. The error has succession trial is also shown on Table no at page no .

Examined

Teacher's Signature:

Slno		Slno		Slno		Slno		Slno		Slno	
1	1	21	5	41	3	61	8	81	7	101	2
2	4	22	3	42	7	62	3	82	3	102	5
3	7	23	7	43	5	63	7	83	6	103	9
4	2	24	6	44	9	64	8	84	1	104	5
5	8	25	4	45	3	65	6	85	9	105	2
6	9	26	8	46	8	66	3	86	3		
7	4	27	5	47	9	67	7	87	2		
8	1	28	1	48	2	68	9	88	9		
9	5	29	9	49	8	69	6	89	3		
10	8	30	7	50	3	70	5	90	7		
11	2	31	8	51	7	71	7	91	5		
12	6	32	2	52	5	72	8	92	4		
13	9	33	6	53	3	73	6	93	8		
14	4	34	3	54	7	74	8	94	2		
15	3	35	9	55	8	75	2	95	7		
16	7	36	5	56	3	76	9	96	5		
17	9	37	4	57	2	77	5	97	7		
18	8	38	2	58	9	78	3	98	9		
19	1	39	8	59	5	79	8	99	3		
20	7	40	6	60	4	80	5	100	8		

Table no 10

2. MULTIPLICATION CHART :

Stop watch, Notebook, Graph paper and Screen.

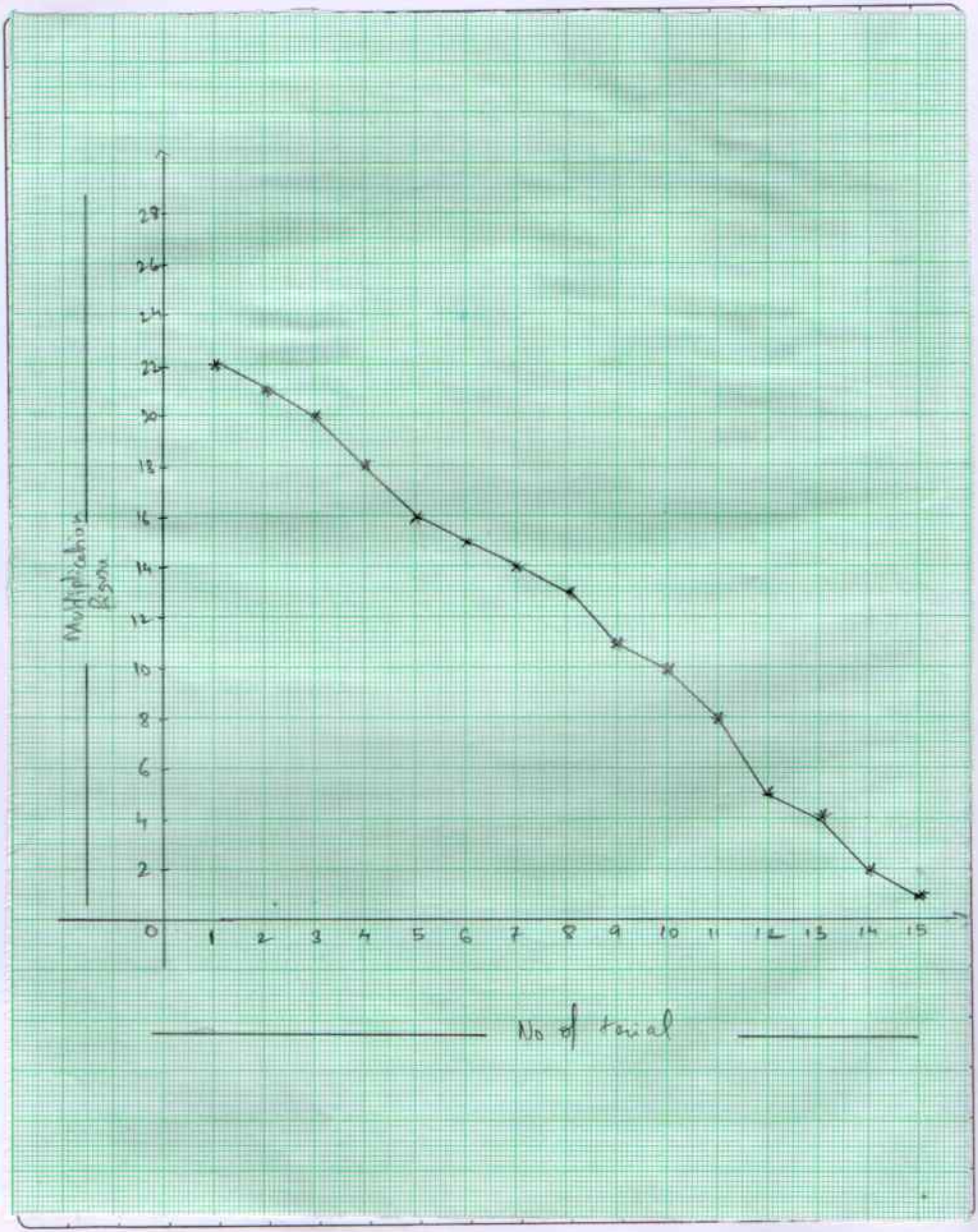
PROCEDURE :

The subject is given an chair to sit comfortably. The multiplication chart is placed before him multiplication chart is placed before him beneath the screen. Then he is given the follow instruction.

I shall give you the question of ready. Then I will asked within a moment time to start, please take out the multiplication table and start the multiplication one by one in the table, Let us suppose that the table in the following one.

Then first of all you have to multiplied the first figure with the score one the $4 \times 4 = 16$. Then you have to multiplied $6 \times 7 = 42$ with the next figure which is $2 \times 2 = 4$. Then 2 of 4 has to multiply by the next 8 that is 32. then 8 of 32 is to be multiplied by the next no. 9 that is $2 \times 9 = 18$. The 8 has to be multiplied by the next no 4. that is $8 \times 4 = 32$ no. 1 that $2 \times 1 = 2$ then 2 of 2 will be taken as 5 figure and therefore. This is to be multiplied by $2 \times 5 = 10$ you have to do this for half an hour when I say stop you will have to put a full stop at the place when you happen to me but you are not to stop you have to continue the multiplication work.

Teacher's Signature:


Multiplication Error
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
No of trial

COLOUR PREFERENCE TEST

INTRODUCTION:

The experiment is meant for studing the colour preference of an individual. In general every person has a generalised order of preference for colour. However, sometimes situation factors also affect the preference values for a colour, Hence the experiment is to locate and thise is consiquence change of preference in different ~~occ~~ occassions.

SUBJECT:

Name : Pritima Soubam
Qualification : Student
Age : 20
Sex : Female
Date :
Place : Education Department

PROBLEM:

To determine the colour preference of an individual in Rank difference method.

Teacher's Signature:

Sl no	Name	Colour
1	Fire	
2	Black	
3	Pink	
4	Blue	
5	Yellow	
6	Sunset	
7	Green	
8	Red	
9	White	
10	Orange	

Sl no	Name	Colour
1	Red	
2	Yellow	
3	Green	
4	Fire	
5	White	
6	Blue	
7	Pink	
8	Sunset	
9	Orange	
10	Black	

MATERIAL REQUIRED :

Two set of 10 small pieces of colour papers, result sheet.

PROCEDURE :

Before starting actual experiment, the experiments will give 10 difference colour of paper to arrange. These colour pieces are kept ready to be selected and put them in an order way in the preference colour.

The first choice is put against no. 1 of the preference colour. The 2nd Choice in no 2 and so on. After giving 1st preference the subject will be given another 5 minutes. When, the time comes he gives another set of equal 10 colour pieces of paper for some task. He will not be allowed to see first preference after giving the necessary instruction. He was given to colour pieces to put at their respective places according to his choice as shown in table no.

The order has noted after 1 minutes, the subject has given second set of 10 colours and asked to arrange them once again and it was noted in table no -

Teacher's Signature:

Sl no	1st preference	Sl no	2nd preference	D	D^2
1	Fire	1	Red	7	49
2	Black	2	Yellow	-8	64
3	Pink	3	Green	-4	16
4	Blue	4	Fire	-2	4
5	Yellow	5	White	3	9
6	Sunset	6	Blue	-2	4
7	Green	7	Pink	4	16
8	Red	8	Sunset	7	49
9	White	9	Orange	4	16
10	Orange	10	Black	1	1

$\Sigma D^2 = 228$

By the formula

$$\rho \text{ (Rho)} = 1 - \frac{6\Sigma D^2}{N(N^2-1)}$$

$$= 1 - \frac{6 \times 228}{10(10^2-1)} \qquad = 1 - 1381$$

$$= 1 - \frac{1368}{10 \times 99} \qquad = 0.381$$

$$= 1 - \frac{1368}{990}$$

Table no - 11

RESULT:

From the table II it is seen that there is different colour of preference. We apply the rank difference method and by the calculation it is shown that ~~correction~~ correlation value is 0.38 and is shown that the correlation is highly ~~position~~. positive

OBSERVATION:

From the above experiment it is found that the subject is very co-operative and showed her willingness and concern to help the experimenter in doing the experiment.

The experiment shows that the correlation is very high.

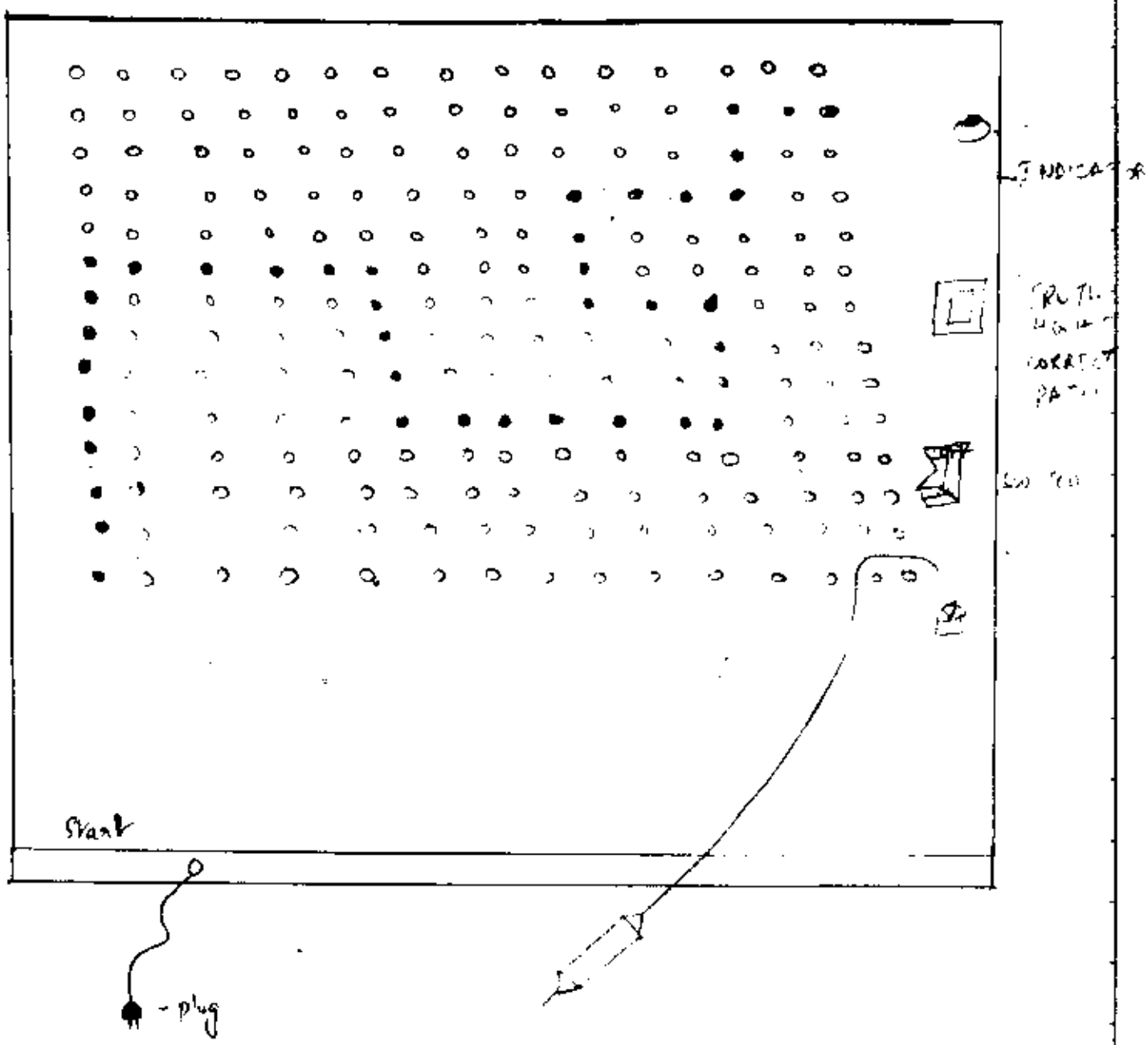


Fig:- David Brown Human Mage Apparatus

HUMAN MAZE LEARNING

OBJECTIVE :→

To determine the nature of progress in learning made by an individual or students by using an electrically human maze apparatus.

SUBJECT : →

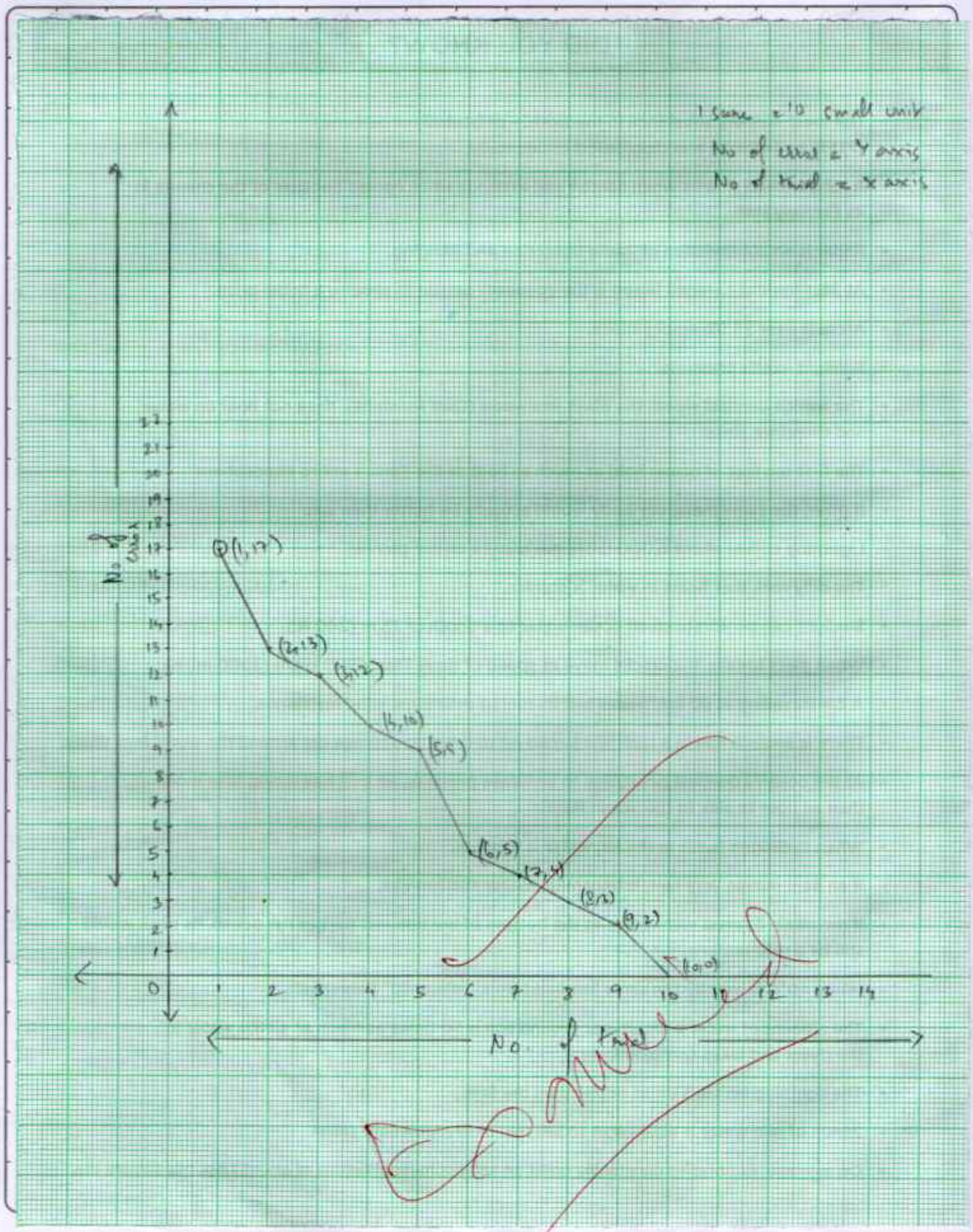
Name : Pritima Soubam
Class : BA 6th Semester
Sex : Female
Time : 11:10 am
Date :
Condition : Normal
Place : EDN Department

MATERIAL REQUIRED –

1. Human Electric Maze
2. Stop Watch
3. Record Sheet

PROCEDURE –

In this experiment, we are referring to a human electric maze in which 'S' is to be written


1 scale = 10 small unit
No of steps = Y axis
No of steps = X axis
No. of steps
(1,17)
(2,13)
(3,12)
(6,10)
(5,8)
(6,5)
(7,4)
(8,3)
(9,2)
(10,0)

RESULT :→

From the above table it is concluded that the subject took more time in the beginning part with many mistakes then the latter attempts.

Thus, the experiment proved that the law of learning by trials and error are applicable to the human being.

CONCLUSION :

The experiment was carried out under normal condition. The subject was co-operative and co-ordination. Thus it can be concluded there is laws of learning in the experiments.

INK BLOT TEST

OBJECTIVE :

To study the number of association of the subjects to ink blots.

MATERIALS :

1. 10 ink blots as shown on
2. A stop watch
3. Record shut as shown on

1st Subject

Name : Tara
Qualification : Student
Sex : Female
Time : 11:15 am
Date :

2nd Subject

Name : Pratima. S
Qualification : BA 6th Semester
Sex : Female
Time : 11:50 am
Date :
Place : Education Department.

Teacher's Signature:

PROCEDURE

For this experiment 12 ink. Blot all of one colour are prepared first two of this blot are used for the practical work.

A convinent place is selected in the laboratory for the test. The subject is asked to take this seat facing the experimenter. By using one of the practical ink blot. The experimenter explained to the subject that as soon as a blot is shown. He should report what object or image he could see in the blot. Each blot is shown for 3 minutes. The second blot is then shown for practised work the experimenter recorded the response as well as the association reaction time of the subject of the 1st response to a blot at the time of exposure the position of each blot is not altered.

Then all the sixc blot are shown one after another for the main experiment. The subject is given half a minutes or one minutes rest between any two response.

CLASSIFICATION OF RESPONSE TIME

Subject 1 Name : Tara Sex : Female

No of Blot	Reaction time	Anatomical Figure	Human Figure	Mythological	Inanimate Object	Movement
1	45 sec					Bird
2	1 min					Insect
3	25 sec				Tree	
4	20 sec					Scorpion
5	1 min				Cactus	
6	2 min					

Table - 13

Subject 2 Name - Pritina Soubam Sex - Female

No of Blot	Reaction Time	Anatomical Figure	Human Figure	Mythological	Inanimate Object	Movement
1	1 min				Flower	
2	50 sec					Crab
3	45 sec					
4	1 min					Butterfly
5	2 min					
6	30 sec					

Table - 14

RESULT :

The calculation of the average no. of responses to blot by each subject, the average association reaction time of the first response to blot by each subject were the result of the experiment the result are shown in a tabular form an page.

OBSERVATION :

The ink blot test is the most popular projective technique and is concern with the total personality. Many psychologists have used meaningless in blots as materials for investigating the imagination.

In this experiment the subject is permitted To organised perceptually such stimuli as the meaningless ink blot and from which the structure aspect at personality chief direction of interest, impulsively self restrain and other aspect of temperament are readily divined.

The scoring category of the test diversy interpreted as signifying different function of the personality intellectual creatively, out going emotion,

practical minded and the like the interpretion of the responses is mainly on the interrelation this intelligence is shown by good form, original and movement responses. But an excess of responses shown a more abstract and synthetic of ordinary details more practical and unusual details etc! Movement responses represents a rich inner life rather than overt emotion. Thus the commoness responses shows lack of ~~ima~~ imagination, anatomical responses mobility.

Teacher's Signature:

INTRODUCTION

While studying plants a detail survey, distribution collection and identification are important so as to arrange them systematically. In the present investigation a detail study in this regard was conducted in the Khoupham hill located in the Khoupham village. Imphal West district, Manipur

In the present investigation, survey, distribution, collection and identification of plants naturally available in the Khoupham hill was planed as a preliminary and first report of its kind. The study tour was done on 2nd Nov.2019 in the morning at 10 am

Various plants were collected and categorized systematically along with their importance in the human society.

A BRIEF DESCRIPTION OF THE VILLAGE

The Khoupham village is located 4 km away from the Manipur University on the southern side. The village over an area of 4.5 square km It is inhibited by Kabui community. The population of the village 600 and the number of houses is around 96. The number of female is more than those of male. The literacy rates about 40-45%. The village has only one LP school and some *angamwadi* centre .the majority of the villagers still.

The forest is reserved one covering an area of 5 hectare and the forest is of mixed type. The major forest products are fire wood but other like friits, food items, and medicinal plants are also obtained. The village has two sacred forests – *Khunthak* and *Khunkha.*

The area under agricultural practice is about 100acres. The villagers used sophisticated techniques of agriculture, pesticide, herbicides, fertilizers and high yielding varieties.

REPORT ON THE VEGETATION STUDIED

The members of the team witnessed with enthusiasm the peculiar vegetation of the study sites. Even though we could not penetrate deep into the extreme areas, we made a brief survey of the hill sides along our tract we collected some plants/ plant parts that are useful for the preparation of herbarium

The following is the lists of plants that we recorded during our course of our study

Botanical name	**Manipuri name**	**Kabui name**	**Family**
Quercus serrata	Uyung	Thui	Moracea
Toona ciliata	Taire		Meliaceae
Dioscora alata	Ha	Lu	Dioscoraceae
Rhus semilata	Heimang	Tamei	Anacardiaceae
Ficus hispida	Aseiheibong		Moraceae
Perkia roxburgii	Yonchak		Mimosaceae
Musa paradisiaca	Laphu		Musaceae
Bambusa sp.	Wa	Pei	Poaceae
Tinospora cordifolia	Ningthoukonlei		
Cltis timorensis	Heikrang		Ulmaceae
Smilax s.			Liliaceae
Wendlandia glabra	Pheija		Rubiaceae
Adhatoda vasica	Nongmangkha		Acantaceae
Bauhinia sp.	Chingthrou		Caesalpinaceae
Arund donax	Yenthou		*Poaceae*
Clerodendron siponanthus	Charoi utong		Verbanaceae
Eupatorium birmanicum	Langthrei		Asteraceae
Ardiria colorata	Uthum		Myrrinaceae
Hedyotis auricularia	Langban koukha	Kansui	Rubiaceae
Stelarria media	Yerumkeirum		Caryophyllaceae
Tectona randis	Chinsoo		Verbanaceae
Phyllanhus emblica	Heikru		Euphorbiaceae

Zanthoxyllum sp.	Muktrubi		Rutaceae
Centella aciatica	Peruk		Apiaceae
Pyrnus communis	Naspati		Rosaceae
Mangifera indica	Heinous		Anacardiaceae
Mussaenda roxburghi	Hanurei	Laphui	Rubiaceae
Nastertum indicum	Uchihangam		Brassicaceae
Oxalis corniculata	Yensil		Oxalidaceae
Plantago erosa	Yempat		plantaginaceae
Polygonum barbatum	Yelang		Polygonaceae
Michelia champaca	Leihao		Magnoliaceae
Leucas aspera	Mayang lanbum		Lamiaceae
Azadiracta indica	Neem		Meliaceae
Gynura sp.	Tera paibi		Asteraceae
Citrus sp.	Nobab		Rutaceae
Elaecarpus floitandrus	Chorphon		Tiliaceae
Solanum indicum	Leipungkhang		Solanaceae
Plectranthus ternifolius	Khoiju		Lamiaceae

CONCLUSION

The site selected for the field study is a rich one. Being a mixed forest, we could see, though it is sparse, the representative of all groups of the plants ranging from Algae to Angiosperm. In the field, we demonstrated how to go to the field and collect the specimen s. the importance of field study in natural scinces, particularly in Botany, is tremendous and without it the study of the subject remains incomplete. Whatever taught in the class was seen vividly in their respective habitats .besides, the consciousness of the existence of plant kngdom from Algae to Angiosperm is made all clear when they are seen in the natural environment.

The vegetation in the study site seems to have been of great importance by providing a variety of plants which are required for various purposes including socio religious rituals, medicines and even various wild edible plants and various other useful plants. However this reserve forest is under tremendous human pressure and if this continues for some years than the rich biodiversity will be ruined , still it is not too late to regenerate it through the consciousness and awareness of the people there and those nearby .

FIELD REPORT

ON

SOCIO-ECONOMIC SURVEY

OF THE SAIPUM VILLAGE, CHARACHANDPUR

Under the guidance of

ELANGBAM SURCHANDRA MEITEI

HOD, DEPARTMENT OF GEOGRAPHY

Y.K. COLLEGE, WANGJING

Examined

GROUP PHOTO

6TH SEMESTER (HONS & GEN)

DEPARTMENT OF GEOGRAPHY

SESSION – 2019-20

ACKNOWLEDGEMENT

The nature of training in the field of Geography will be different for various classes of students. It entirely depends on the type of knowledge that the student has gathered in the class. In the undergraduate studies, too much emphasis on the physical geography becomes burdensome. In this class, various types of human activities are analysed and whatever possible, their co-relationship with physical element is established. For this reason, these students are required little training in the observation of physical element in the field. But a personal contact with human activities is essential. Student may be taken outdoors in different regions so that they may be able to observe personally the various forms of cultural elements and human activities. Thus, sight-seeing becomes an important aspect of field geography which can be achieved by arranging simple excursions to adjoining or distant lands. This study has been undertaken and completed under the guidance and supervision of our respected teacher Sir E. Surchandra Meitei, HOD and Sir N. Jayenta Meitei, Dept. of Geography, Y.K. College, Wangjing. I am highly indebted to his enthusiastic, untiring and scholastic guidance throughout the work.

With profound gratitude.

Date: 25 - 02 - 2020

Signature of Student

K. Robinson Singh

Certificate

This is to certify that Keisham Robinson Singh *., B.A. 6th Semester (Hons) bearing Roll No* 7213959 *., Registration No* 1785 0035/2017 *. candidate of Manipur University appearing from this College has completed his project report titled on* ***Socio-Economic Survey of Saipum Village, Churachandpur*** *and has given a satisfactory account on Notebook containing a record of project report.*

Date... 25/02/2020

E. Surchandra Meitei

Signature of Guide

INTRODUCTION

Field work constitutes an important role on geographical studies. In order to study the nature of men and their environment, we need field work by which we can collect first hand information and analyse them through various methods. Ourclass of B.A. 6th Semester Geography Honours students organised a study tour at the Saipum village in Churachandpur district on the 25th April, 2020 under the guidance of Sir E. Surchandra Meitei. We hired one bus and assembled at the College gate at about 7 a.m. on that day. Then, at 7.30 a.m, we set off the tour for our destination. Saipum village is about 70 km away from Imphal and 88 km from our college. It took nearly 2 hours to reach the village by our bus.

OBJECTIVE

The main objective of the survey is to study and explore the Saipum Village from social, cultural and geographical point of view. In order to achieve this objective, we have to find out the following aspects:-

1. Demographic aspects like household size, sex ratio, literacy etc.
2. Economic aspects like occupation, duration and distance to workplace.
3. Social aspects like religion, social category, marital status etc.
4. Accessibilities to health and educational facilities.

ABOUT THE VILLAGE

Location Map of Saipum village, Churachandpur

Saipum village is located in Churachandpur Tehsil of Churachandpur district in Manipur, India. It is situated 7km away from Churachandpur, which is both district & sub-district headquarter of Saipum village. Toljang Kuki (1 KM) , Mualsan (1 KM), Lingsiphai (1 KM) , Mata (1 KM) , Zenhang Lamka (1 KM) are the nearby Villages to Saipum. Saipum is surrounded by Lamka Tehsil towards North , Churachandpur Tehsil towards North , Tuibong Tehsil towards North , Samulamlan Tehsil towards North .

PHYSICAL ASPECTS

Saipum village is situated at the foothills of the southern ranges of Manipur. Major parts of the village are occupied by rugged and uneven terrains/hills with an average elevation of 1000m above MSL. This region enjoys temperate ans salubrious climate. The location is north of Tropic of Cancer in northern hemisphere, it has summer season in March, April and May with warm, hot and sunny weather. Rainy season starts April and last till October during which ample amount rain

(300cm) is received. The winter season is cool and dry. The area is in the Khuga river basin, now under the control of the Khuga Dam located nearby.

VEGETATION

The nature of vegetation of the hill including early hills is said to be sub-tropical deciduous type. Agricultural land (Jhum) constitutes major share of landuse followed by forest cover including bamboo, pine etc.

POPULATION

According to Census 2011 information the location code or village code of Saipum village is 269648. Saipum has a total population of 1,977 peoples, of which male population is 1,517 and female population is 460. There are about 194 houses in Saipum village. Kwakta is nearest town to Saipum which is approximately 12km away. Saipum Local Language is Meiteilon (manipuri).

In Saipum village population of children with age 0-6 is 115 which makes up 5.82 % of total population of village. Average Sex Ratio of Saipum village is 303 which is lower than Manipur state average of 985. Child Sex Ratio for the Saipum as per census is 1054, higher than Manipur average of 930. Saipum village has higher literacy rate compared to Manipur. In 2011, literacy rate of Saipum village was 94.52 % compared to 76.94 % of Manipur. In Saipum Male literacy stands at 97.81 % while female literacy rate was 82.54%.

As per constitution of India and Panchyati Raaj Act, Saipum village is administrated by Sarpanch (Head of Village) who is elected representative of village. Our website. don't have information about schools and hospital in Saipum village. Saipum village of Churachandpur has substantial population of Schedule Tribe (ST). Schedule Tribe (ST) constitutes 33.64 % while Schedule Caste (SC) were 0.20 % of total population in Saipum village. The village is inhabited by several Kuki and Zomi people.more but recently the Meiteis have started settling in the village.

OCCUPATIONAL STRUCTURE

In Saipum village out of total population, 1375 were engaged in work activities. 92.44 % of workers describe their work as Main Work (Employment or Earning more than 6 Months) while 7.56 % were involved in Marginal activity providing livelihood for less than 6 months. Of 1375 workers engaged in Main Work, 125 were cultivators (owner or co-owner). Main occupation of the villagers is cultivation. Major producing crops are paddy, maize and ginger.

SOCIAL AND CULTURAL ASPECTS

Housing is one of the basic necessities of human well-being. While analysing the housing condition, focus will be on three aspects: (a) households possessing individual house and those who live in rented house; (b) the qualitative aspect of the dwellings shall be analysed, which include the type of the house: kutcha (thatch-roof), kutcha (tin-roof), concrete wall (tin-roof), *pucca* (RCC) houses, ventilation quality and sanitation system in the house; and (c) finally, the size of the house and the homestead. Most houses have toilet facility except a quarter of the household do not have access to safety toilets. The quality of water availability has been observed on the basis of the main source of drinking water supply to the household. In the study area the main source of drinking water is public tap (48.02 per cent), followed by open sources (21.49 per cent) and dug-well (19.66 per cent). The share of water obtained from hand-pump/bore-well is 10.82 per cent. Most of the households have electricity connection.

FINDINGS &CONCLUSION

Majority of the people in rural areas live in kutcha (thatch-roof) houses. A substantial proportion of households in the study area still do not have access to safety toilets. Nearly 80 per cent of the households in the district have bad quality ventilation in the house which could be due to ignorance, negligence and financial constraints on the part of the people regarding the importance of proper ventilation set up to enhance the quality of life. The main source of drinking water in the district is that of public tap, followed by open sources, dug-well and hand-pump/bore-well. Almost half of the households in the study do not have electricity connection in the house. This reflects the underdeveloped nature of district in terms of electricity supply.

Examined

DEPARTMENT OF ZOOLOGY
Y.K. COLLEGE, WANGJING

STUDY TOUR: KEIBUL LAMJAO NATIONAL PARK (2019-2020)

Submitted to:
Department of Zoology
Y.K.C. Wangjing

Submitted by:
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Uni. Roll no: 9104282
1st Semester

Department of Zoology
Y.K. College, Wangjing

Certificate of Participation

This is presented to

Yumnam Dayananda of 1st Semester

For his/her active participation in the study tour to Keibul Lamjao National Park conducted by the Zoology Department of Y.K. College, Wangjing on November 2019.

Date:

Study tour In-charge
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Forwarded to
Dr. M. Chinamen Chanu
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HOD, Zoology Department
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Associate Professor
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Government of Manipur

PREFACE

A study tour to Keibul Lamjao National park was conducted by the Zoology Department of Y.K. College, Wangjing. This report is based on my experience of that tour.

We got to experienced first hand the flora and fauna of this serene national park and expand our knowledge on how to conserve the endangered species like the Sangai.

I hope this report reflects and informs the reader to care about nature, animal and the ever changing environment we are facing today.

ACKNOWLEDGEMENT

I would like to show my special gratitude towards Dr. M. Chinamen Chanu (HOD), Dr. Shatter Shah and Dr. L. Gopen Singh of Y.K.College, Wangjing for providing me with such a great study tour to Keibul Lamjao National Park and making it possible for me to write down a report on it.

I would like to thank all my friends who were there to extend help in my project. I would love to thank my parents and family members for all the love and support they have been giving to me.

Last but not the least, a big thanks to all who were there for me. Without you all, my project would not have completed successfully.

CONTENT

KEIBUL LAMJAO NATIONAL PARK

INTRODUCTION

The Keibul Lamjao National Park is a national park in the Bishnupur District of the state of Manipur in India. It is 40 km2 (15.4 sq mi) in area, the only floating park in the world, located in North East India, and an integral part of Loktak Lake.

It was established as a National Park in the year of 1977. The park is situated on the southern shore of the Loktak Lake – the largest fresh water lake in Eastern India, which has been declared a Ramsar site. The fauna in the park is also rare and unique.

Rare wild cats like the marbled cat and the Asian golden cat are occasionally seen in the national park. Other animals like the Himalayan black bear and the Malayan bear are also seen. A variety of fishes and reptiles like tortoises, snakes like viper and cobras are also found.

It lies on the southeastern side of the Loktak lake lies the Keibul Lamjao National Park. It is the only floating National Park in the world and this is because of the phumdis. Islands formed by mats of dense aquatic grass gives it an appearance of floating on the lake.

The thickness of phumdi varies from few centimeters to two meters. The phumdi floats with 4/5 part under water.

Unlike other land-based national parks, this park floats on water. 20% of the total thickness of phumdis stays above, on the surface of water. So

now we can see that Keibul Lamjao is an integral and a big part of Loktak Lake. It is as big as 40 square kilometers in area. Thambal, loklei, pullei, tou, ishing kambong and kabokang are the most abundant aquatic plants growing in the park and some of them are actually edible. Migratory birds coming from other parts of India take shelter in the park during winter season. To name some we have Spotbill duck, Blue-winged teal, Black kite and Skylark. Hog deer, Wild boar, Flying fox, Tortoise, Water cobra, Jungle, etc. are found too in this national park. Manipur forest department is doing everything possible to safeguard Keibul Lamjao as national parks come under its jurisdiction. Nobody is allowed to go inside the park, collect plants and fodders, without permission from the government. Hunting and killing of animals are strictly prohibited.

There is more to talk than just the floating characteristics of the park. It is the tiniest bit of the uniqueness the park has. From being a wildlife sanctuary in 1966 to becoming a national park in 1977. In 1839 this specie was discovered and after that in 1951 it is reported to be extinct, but after that it is rediscovered and now Keibul Lamjao is only home to this unique deer specie which attracts a large number of tourists to Keibul Lamjao National Park.

Do you have any idea what is so special about this place? There's only reason and that is Sangai. It is called Eld's deer in English and Cervus eldii eldii is its scientific name. Keibul Lamjao is about Sangai and only

Sangai. We will find all these animals like fox, cobra, tortoise, bear and monkey in some or the other national park and we already know a lot about them too. But this 'Sangai' is nowhere to be found in the world except in Manipur's Keibul Lamjao. Many people do not know about this endangered deer and even about its existence. So, in order to conserve Sangai and its rare habitat, I am writing on Sangai extensively under this topic.

We have heard of legends that says a man named Pudangkoi Khutkoiba was transform into a Sangai in ancient times. When predators chase this animal, they run very fast and also at the same time look back at the predator to maintain a good distance. This above described term, in Meitei Language is somewhat similar with the word 'Sangai' and that is why the name. Their most common color is brown. We can find horns on the heads of males but not on females. The horns are in no way similar with other deer. They are not very comfortable staying in large group, at maximum a Sangai will be with three other Sangais. They also stay with wild boar because of the same food they have i.e. phumdis. There is no such thing like an exact place for shelter, the place where they eat during the daytime is the same place they sleep at night. Sangais have good sense of smell and hearing ability. Locking horns is their way of playing and socializing. The parents give birth to only a baby Sangai a year and that's why we do not see rapid rise in its population. Keibul Lamjao helps Sangai in increasing its population enormously because the habitat

is the best suited for them. The number of Sangai was only 14 in 1975 but the number at the start of 2021 showed more than 260, which is quite encouraging. It is the duty of each one of us to protect and conserve our state animal, Sangai, at any cost.

OBSERVATION

Climatic conditions of Keibul Lamjao National Park

The climatic condition prevailing here has a vast range of temperatures ranging from 34.4 degree Celsius in summer to as low as 1.7 degree Celsius in winter. This Park also gets enough rainfall during the rainy season and has a recorded maximum humidity of 81%, the lowest being 49% in March.

Flora and fauna

Principal highlight of the Park is its flora and fauna. There is a range of Aquatic Flora available here which includes wild rice, khiomom, singnang, phuma, pulldi, thamba, you, lokei, kabokang, tinhou, etc. The above listed Flora had been recorded in floating as well as sinking phumdis. Vegetation also closed on the floating decomposed vegetation which includes reeds, grasses and other plans. While the sinking phumdi has vegetation which have sunk to the bottom of the lake. However the three Hills surrounding the park are now denuded of most of the vegetation.

The fauna of the area also present a pandora's box of different species. There are brow antlered deers also known as the sangai which is one of the principal highlights of the park. Other mammals found here include Hog deer, Wild Boar, large Indian civet, Fox, Jungle cat, Golden Cat, bamboo rat, flying Fox, sambar and many more.

The water bodies here also embody a variety of fishes and aquatic animals including common carp, punctatus, striata, etc. Among the amphibians and reptiles, kneel back tortoises, viper krait cobra water cobra banded krait and various other endangered species are found here. Range of different Birds species are also seen in this Park. These include the east Himalayan pied Kingfisher, the black kite, lesser skylark, Northern Hill myna, Burmese pied myna, North Indian black drongo, lesser Eastern Jungle crow, yellow headed wagtail, spot billed duck, blue winged teal, Indian white breasted waterhen, Crimson breasted pied Woodpecker, and threatened hooded crane.

Threats

Since modernisation man has been tirelessly putting efforts in order to exploit the nature for his own advantage. We have not left the animals too. Endangered species are hunted as well as smuggled from the nation to abroad just for the purpose of earning money.

Because the area is a marshy land, the water quality has been deteriorating as supported by the corresponding pH values. The reason for poor quality is usually because of the pollutants from the towns joining into the lake, the excessive and indiscriminate use of chemical fertilizers and pesticides in the surrounding land area, accumulation of water, forestation which further causes soil erosion and routing of vegetation due to marshy land.

There are other threats too which include permanent flooding because of the thickness of the phumdis which is the result of the Ithai Barrage under the Loktak Multipurpose project.

The hydroelectric power plants constructed on the lake cause back flow of water from the Khordak River and discharge from other lakes and streams with settle down on the lake bed during the dry season.

The Loktak Lake of the National Park has provided for the subsistence of the local people giving them fish vegetation fruits etc. These also generate a small amount of revenue for the local people. Environment inning permanently high levels of water for belly ache will negatively affect the interests of the people of the area.

There are also boating options around to take a look at the flora and fauna of the park. The place also has quite a few trekking trails worth the time and effort for the beautiful landscapes.

Conservation

In order to protect the lake and the Keibul Lamjao national park the government has taken many initiatives. High places have been made for saving the animals in times of floods. The theft of the valuable Timber and firewood food and fodder has been completely stopped.

Eco tourism has been increased as well as General awareness is being increased. The forest department has also taken several steps in conjunction with the Manipur government which include: Construction of fence border of the more important parts of the path to prevent the human exploitation.

Various checkpoints have been made at the most important places of the lake and the park for the purpose of enhanced security.

Conclusion

In the month of spring for six days, locals celebrate the YaoTsang festival where you can witness many events as the city comes out in full celebration. This is also the time we can wines the various delicacies here. The park also has many shopping options that we can explore throughout our trips.

The Keibul Lamjao National Park is stunning place with some rare species of flora and fauna.

DEPARTMENT OF ZOOLOGY
Y.K. COLLEGE, WANGJING

PROJECT WORK: STUDY OF LOCALLY FOUND FISHES.

Submitted to:
Department of Zoology
Y.K.C. Wangjing

Submitted by:
Ronal Okram
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4th Semester

Department of Zoology
Y.K. College, Wangjing

Certificate

This is to certify that

Ronal Okram of 4th Semester,

has done his/her Project Work titled "Study of Locally Found Fishes" with a keen interest on May 2020, as a part of curriculum of Zoology Department of Y.K. College, Wangjing.

Date:

L. Gopen Singh

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PREFACE

This report is based on the study conducted on the fishes that were obtained from the Thoubal river.

The Thoubal River originates in the hill ranges of Ukhrul and is an important tributary of the Imphal River. It passes through Yairipok and Thoubal before joining the Imphal at Irong near Mayang-Imphal. The Imphal River rises in the hills of Senapati district and flows south.

And I chose Thoubal river as it is situated right in front of my house and they provide very good fishing ground for a variety of fishes are found in this river.

The study was conducted at home due to the covid-19 pandemic with the help of my professors online and the fishes was studied in detailed.

ACKNOWLEDGEMENT

I am glad that I am able to finish my Project work successfully in time. I would like to show my sheer affection to Dr. M. Chinamen Chanu (HOD), Dr. Shatter Shah and Dr. L. Gopen Singh of Y.K.College, Wangjing for giving me a wonderful opportunity to work on these project entitled "Study of locally found fishes".

I would like to thank all my friends who were there to extend help in my project. I would love to thank my parents and family members for all the love and support they have been giving to me.

Last but not the least, I would like to express my deepest appreciation to all those who've provided me the possibility to have a wonderful project work even during these tough times of covid-19 pandemic.

CONTENT

INTRODUCTION

Fish civilisation enjoys a very special consideration and place in human civilisation from time immemorial. Its food value gastronomic culinary and nutritions brings it to the fore; many species of fish rank in the category of gourmet per excellence. A sizeable number of food fish species, both fresh water and salt water are put in the category of excellence, very good, good and fair, depending upon local, regional or national consideration of taste, preferences and eating habit.
has enormous potential resources teaming with fish.

India has enormous potential resources teaming with fish. A large part of the country is maritime engaged in traditional
fishing in marine water from ages. The inland fishing is also time old practice in the extensive network of fresh water. India
ranks first among the first ten largest fish producing countries of the world.

In Manipur fish enjoys a very special place as food commodity. As many of 137 species of fishes in 27 families and eleven orders are known to occure in Manipur. Out of these 107 species are found in the Barak river system and 82 in the Manipur river system. 50 species are common in both the system, 7 species are found purely endemic in Manipur and 27 species are distributed in Manipur and neighboring areas.

MATERIALS AND METHOD

MATERIALS:

10% Formalin Solution, Jars, Slider, Thread, Specimens, Vernier Callipers etc.

METHOD:

1. COLLECTION OF THE FISHES

I collected the fishes which are found locally in Manipur from the Thoubal river around 10-12 in the Morning and prepared a list of 17 diffrent fishes which are fresh.

2. PRESERVATION OF FISHES

The fishes were first washed in water, prepared 10% formalin solution in separate jars.

3.IDENTIFICATION OF FISHES

(i) TAXONOMIC IDENTIFICATION

The specimens are first keyed to their proper species designation from standard available keys or check lists. Then the specimens are compared with detailed descriptions, photographs, sketches etc.
available from the published sources
preferably of the same region or with museum specimens from standard collection for final verification.

(ii) MORPHOMETRIC ANALYSIS

(A) LENGTH OF THE BODY :- Measurement of the length of the body is taken on
a fresh fish which has not yet been deformed owing to rigour mortis. A straight line and not a line following the curvature of the body is used for measurment. A measuring board is used for the purpose
TOTAL LENGTH:- This length represents the maximum elongation of the body from end to end. For this mesurment. mouth is kept closed and the caudal fin squeezed. For the caudal fin, tip of the longer lobe is used.
STANDARD LENGTH:- It represents the length of the body from the anterior extremity (mouth closed) - Tip of the snout or that of the lower jaw as may be the case to the base of the caudal fin. The base of the caudal is determined by the groove or crease formed when the tail is bent from side to side. It is the most commenest length used in fishery work.

(B) HEAD LENGTH:- It is the distance in a straight line between the anteriormost part of the snout or the upper tip whichever is extending farthest forward and the posterior edge of the opercular bone.

(C) WIDTH OF THE BODY:- It represents the distance in straight line between the base of the neutral fin of the fish.

(D) WIDTH OF THE HEAD:- It repreents the distance in a straight line between the tip of the two opercula.

(E) EYE DIAMETER :- It is the diameter of the eye.

(F) FIN LENGTH AND FIN RAY COUNT:- The diffrent fins are measured in straight lines to give the fin length. The fin ray formula express the count of fin rays in diffrent fins of the body. The fin representation are

D- Dorsal fin

A- Anal fin

C- Caudal fin

P- Pectoral fin

V- Ventral fin

The Roman Numerals express the number of spiner whereas the Arabic Numerals the number of soft rays. Spiner are the rays that are single. Soft rays are the rays that are bilaterally paired segmented and flexible.

Ngasang

OBSERVATION

COLLECTION AND CLASSIFICATION OF ENDEMIC FISHES

LOCAL NAME - Ngasang

PHYLUM - Chordata

SUB-PHYLUM - Vertebrata

SUPER-CLASS - Pisces

CLASS - Teleostomi

ORDER - Cypriniforms

FAMILY - Cyprinidae

GENUS - Chela

SPECIES - laubuca

CHARACTERS

Total length: 5.5cm

Length of head: 1.1cm

Standard length: 4.1cm

Height of the body: 0.4cm

Eye-Diameter: 0.3cm

D.10 ; P-11 ; V.5 ; A.23 ; C.19

Fins are characterised by the following

i) Dorsal fin commences distinctly behind the origin of anal.

ii) Pectoral fins do not reach the anal.

iii) Caudal fin is forked.

COLOUR

It is Silverly with fine black dots over the body.

DISTRIBUTION

It is widely distributed in Northern India, Eastern India, Myanmar etc.

Ngaki jou

LOCAL NAME : Ngaki jou

PHYLUM : Chordata

SUB-PHYLUM : Vertebrata

SUPER-CLASS : Pisces

CIASS : Teleostomi

ORDER : Cypriniforms

FAMILY : Cobitidae

GENUS : Lepidocephalchthys

SPECIES : quntea

CHARACTERS

Total length : 7.9cm

Length of head : 1.3cm

Standard length : 6.57cm

Height of the body : 0.66cm

Eye-Diameter : 0.2cm

D:8(2/6) ; P:8 ; V:7 ; A:7 ; C:16

BARBELS:-TWO pair nostral, one pair maxillary, all longer than the **orbit**. A fleshy flap from the lower surface of mandible on either side **joins** the maxillary barbels each with two or other barbels at the tip.

FINS:- Dorsal fin is located opposite the uentral and caudal fins entire.

SCALES:- Minute

COLOUR:- A black band extends from the snout to the tall region. There is a blackocellus above the middle of the base of the caudal fin, placed just above the lateral band. A broad longitudinal black band extends over the whole of the dorsal
side begining from the occipital region and reaching over the base of the caudal fin. Caudal and dorsal fins with numerous rows of dark spots. The fish is generally dirty yellowish brown.

DISTRIBUTION
Throughout Northern India and Pakistan.

Ngamu

LOCAL NAME : Ngamu

PHYLUM : Chordata

SUB-PHYLUM : Vertebrata

SUPER-CLASS : Pisces

CIASS : Teleostomi

ORDER : Ophiocephaliformes

FAMILY : Ophiocephalidae

GENUS : Channa

SPECIES : striatus

CHARACTERS

Total length : 8.8cm

Length of head : 1.5cm

Standard length : 7.4cm

Height of the body : 1.8cm

Eye-Diameter : 0.4cm

D:34 ; P:15 ; V:6 ; A:22 ; C:20

SCALES:- Large irregular shaped scales on summit of head.

COLOUR:- Dark greyish or blackish dorsally depending upon the locality; yellowish white beneath cheeks and lower surface of the

mouth spotted with grey or black descend from the sides to the abdomen. Ventral and anal fins greyish.

DISTRIBUTION:- Throughout the plains of India, Pakistan, Srilanka, Myanmar, China, and Philippines.

Ngamhai

LOCAL NAME : Ngamhai

PHYLUM : Chordata

SUB-PHYLUM : Vertebrata

SUPER-CLASS : Pisces

CIASS : Teleostomi

ORDER : Perciformes

FAMILY : Centropomidae

GENUS : Chanda

SPECIES : nama

CHARACTERS

Total length : 6.51cm

Length of head : 1.65cm

Standard length : 5.1cm

Height of the body : 0.7cm

Eye-Diameter : 0.6cm

D: 1+7/1/16-17 ; P:12 ; V:1/5 ; A:3/16-18 ; C:17

Lower jaw is much longer than upper jaw.

FINS :- The third dorsal spine is the longest. The rays gradually decrease in length. The third anal spine is the longest, caudal fin is deeply forked.

Nylon nga

Ngapema

LOCAL NAME : Kuri

PHYLUM : Chordata

SUB-PHYLUM : Vertebrata

SUPER-CLASS : Pisces

CIASS : Teleostomi

ORDER : Cypriniformes

FAMILY : Cyprinidae

GENUS : Labeo

SPECIES : gonius

CHARACTERS

Total length : 21.3cm

Length of head : 3.78cm

Standard length : 16.90cm

Height of the body : 5.80cm

Eye-Diameter : 1.15cm

D:17 ; P:16 ; V:8 ; A:7 ; C:20

Body elongate, its dorsal profile more convex than the slightly projecting beyond mouth devoid of lateral lobe studded with numerous pores. Mouth narrow and sub-inferior, lips thick and fringed with a distinct inner fold in their circumference. Barbels 2 very short pairs.