

**A PROJECT REPORT
ON
“A STUDY ON THE PROBLEM OF LACK OF
INTEREST IN MATHEMATICS AMONG THE STUDENTS
OF (CLASS-IX) SATPAKHALI HIGH SCHOOL”**

SUBMITTED TO



**THE DEPARTMENT OF MATHEMATICS
JAWAHARLAL NEHRU COLLEGE, BOKO
IN PARTIAL FULFILLMENT OF
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SUBMITTED BY

DEEPJYOTI DAS

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GU REGISTRATION NO. : 17005003

SUPERVISOR: DR. DHIRAJ KUMAR DAS

DEPARTMENT OF MATHEMATICS

JAWAHARLAL NEHRU COLLEGE, BOKO

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Date : 24/12/2024

Deepjyoti Das

THANKING YOU

DEEPJYOTI DAS

M.Sc. 3rd SEMESTER

DEPARTMENT OF MATHEMATICS

JAWAHARLAL NEHRU COLLEGE, BOKO

DECLARATION

I, DEEPJYOTI DAS, a student of Department of Mathematics, Jawaharlal Nehru College, Boko, under Gauhati University, hereby declare that the project work entitled "A STUDY ON THE PROBLEM OF LACK OF INTEREST IN MATHEMATICS AMONG THE STUDENTS OF CLASS IX OF SATPAKHALI HIGH SCHOOL" is submitted to Department of Mathematics, Jawaharlal Nehru College, Boko, done by me under the guidance of DR. DHIRAJ KUMAR DAS Sir, Associate Professor, Department of Mathematics, Jawaharlal Nehru College, Boko. No part of this dissertation has been submitted for the award of any other degree in other institution.

Deepjyoti Das

DEEPJYOTI DAS

M.Sc. 3rd SEMESTER

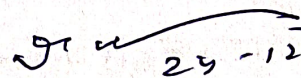
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CERTIFICATE

This is to certify that the project report entitled as “A STUDY ON THE PROBLEM OF LACK OF INTEREST IN MATHEMATICS AMONG THE STUDENTS OF CLASS IX OF SATPAKHALI HIGH SCHOOL” is about the lack of interest in Mathematics among the students of Secondary level and the remedial solutions for it, which is the outcome of the study and investigations carried out by Deepjyoti Das, student of M.Sc. 3rd semester, Mathematics Department of Jawaharlal Nehru College, Boko, under the guidance my supervision and guidance. No part of this project work has been submitted for the award of any other degree in other institution.

Deepjyoti Das, fulfills the requirements of the regulation related to the nature and prescribed period of project work for the fulfillment of 3rd semester course syllabus of Gauhati University.

Date: 24/12/2024

 24-12-2024

SUPERVISOR

Dr. DHIRAJ KUMAR DAS

ASSOCIATE PROFESSOR

DEPARTMENT OF MATHEMATICS

JAWAHARLAL NEHRU COLLEGE, BOKO

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CHAPTER: 1

INTRODUCTION

Action Research is variously known as participatory research, collaborative inquiry, emancipator research, action learning, contextual action research, and the like. In simple terms, action research is a process of 'learning by doing'. In an action research project, a group of practitioners identify a problem; make a plan and act on that plan to resolve it; examine how effective their actions have been; and if they are not satisfied with the result, repeat their cycle for a better solution. This is the basic approach of action research. There are various steps involved in action research. They basically involve the identification of the problem, determining the needs or methods of data collection, collection and analysis of data, creation of an action plan, description of the use of the findings, report as well as the future plan. The process is usually cyclical. The steps are vital in ensuring professionalism, completeness as well as validity of the action research. It usually requires regular observation.

According to Hammersley, "Action Researches are small scale and narrowly focused researches undertaken by teachers in a given context. It has also been referred to as research into practice by practitioners, for practitioners."

Johnson has defined as “Action research as the process of studying a real school or classroom situation to understand and improve the quality of actions or institutions.”

MATHEMATICS is the science that deals with the logic of shape, quantity and arrangement. MATH is all around us, in everything we do. It is the building block for everything in our daily lives, including mobile devices, architecture, art, money, engineering, and even sports. But some students dislike MATH. They think it's dull. They don't get excited about numbers and formulas the way they get excited about history, science, languages or other subjects that are easier to personally connect to. So the topic of this research is:

“A study on the Problem of Lack of Interest in Mathematics among the students of class IX of Satpakhali High School.”

1.1.CONCEPTUAL OR THEORETICAL BACKWARD OF THE STUDY:

School curriculum includes various subjects to be taught to the pupils. There are both arts and science subjects in school curriculum. All these subjects are introduced for all round development of the pupils. There are subjects like English, Assamese, General Science, Social Science, Geography, History, Music, Mathematics, Sanskrit, Computer etc. All these subjects have their own area of study having significant relationship among different subject learning. Among

various school subjects, Mathematics is a major and compulsory subject for all school students. Here, lies the importance of the subject of Mathematics for pupils. Mathematics has a significant relationship with education. Education makes man perfect and without mathematical knowledge education remains incomplete; Mathematics is the queen of science. All science subjects are based on Mathematics. Mathematical knowledge builds the foundation of science streams pupils for future. Clear and correct Mathematical concept developed in school education among pupils help them to select science subjects to be studied in future. Pupils develop good understanding in Mathematics are seen more efficient in problem solving, taking risk, mental reasoning, express creativity and taking challenges positively. Along with they develop a discipline way of doing things in common daily life. Therefore, Mathematics is a very important subject for school students. Mathematical thinking develops the whole personality of students. Mathematical thinking is very important for all members of a modern society and it is the language of native and as a habit of mind for its use in the work place, business and finance, and for personal decision making. Mathematics is fundamental in national prosperity in providing tools for understanding science, engineering technology and economics. It is essential in public decision making and for participation in the knowledge economy.

Mathematics equips pupils with uniquely powerful ways to describe, analyze and change the world. It can stimulate moments of pleasure and wonder for all pupils when they solve a problem for the

first time, discover a more elegant solution or notice hidden connection. Pupils who are functional in Mathematics and financially capable are able to think independently in applied and abstract ways and can reason solve problem and assess risk. Mathematics has developed over time as a means of solving problems and also for its. A simple common man fined his Mathematics useful in his day to day life. Neglect of Mathematics works injury to all knowledge. Mathematics forms a very valuable discipline of teaching learning programmers' of school subjects everywhere in the world of curious children. So the pedagogy of Mathematics should very carefully be built in different level of school education. In the pedagogical study of Mathematics we mainly concern ourselves with two things; the manner in which the subject matter is arranged or the method, the way which it is presented to the pupils or the mode of presentation.

Mathematics is intimately connected with everyday life and necessary to successful conduct of affairs. It is an instrument of education found to be in conformity with the needs of human mind. If and when mathematics is removed the back bone of our material civilization would collapse. So is the importance of Mathematics and its pedagogic.

It is seen that pupils show poor performance in the subject of Mathematics. They have no interest towards Mathematics. Many pupils get poor marks in the examination in this subject. Students often develop Mathematical anxiety in schools, often as a result of learning from teachers who are themselves anxious about their Mathematical

abilities in certain areas. Typical examples of areas where Mathematics teachers are often incompetent or semi-competent include fractions long (Divisions), algebra, geometry with proofs, calculus and topology. A Mathematics teacher passed with only 51% marks in Mathematics may be unable to teach Mathematics to his students efficiently. Would be Mathematics teacher fail to understand about 50% of the syllabus throughout his/her education can and often does become a Mathematics teacher. His/her fears and lack of understanding them pass naturally to his/her pupils.

Pupils can learn any area of Mathematics when given a desire to learn, a coherent presentation of the information and adequate practice. There is a great influence of parent's and teacher's attitudes on the child's expectations of learning mathematics. It is less the actual teaching and more the attitude and expectation of the teacher or parent's that count. Pupils find their parent's as the primary force behind the interest in Mathematics. Teacher should introduce and practice new coping skill so that fear, distaste or other negative emotions do not block mathematics learning. Therefore, the learning of teacher is very important in this case. The teacher has to know the anxiety reducing techniques that teachers can teach their children and practice periodically throughout the year. Teacher will need to learn these techniques and encourage the students to practice them at home and to use them prior to testing or when feeling anxious during Mathematics class.

This Action Research aimed to identify the factors affecting the students' interest towards Mathematics. It is in this context that this action research was undertaken that is to identify the causes why class IX students of Satpakhali High School are not given interest in the subject of Mathematics.

1.2. SIGNIFICANCE OR RATIONALE OF THE STUDY:

Mathematical knowledge is very important for every walk of life. Mathematical develop pupils' reasoning power, creativity, analytical capacity and disciplined manner of doing things. Apart from daily life Mathematics is fundamental in national prosperity in providing tools for understanding science, technology and economics. Mathematics forms a very valuable discipline of teaching learning programmers' of school subjects. Mathematics is necessary to successful conduct of affairs. It is an instrument of education found to be in conformity with the needs of human mind. Mathematics is the back bone of progress of human civilization. Mathematics is everywhere and yet it may not be recognized because doesn't look like the Mathematics done in school. Mathematics is present in our world all the time- in the workplace in our houses and in life in general. In every moment of our daily life, we think Mathematics in mind, such as how much time we watch T.V., how much we have to cook, how much time we have to sleep, when we start for school to arrive in time, how much we can eat, how much

elements to be mixed to make a good nice etc. etc. Here, we use Mathematics without knowing that we are actually using Mathematics. It is sometimes difficult for students to appreciate the importance of Mathematics. They often find the subject boring and hard to understand. Simple Mathematics is useful in all kinds of everyday pursuits like cooking, cultivating budgeting, shopping, building and travelling to a name few.

To create interest towards mathematics in the Childs' mind is very important. This study has significance in finding out the probable causes of the problem and the solutions to it. This study may focus on the problems which create the situation that pupils don't like Mathematics. Mathematical knowledge is the base for various further studies. Therefore, pupils should be provided with a strong base of Mathematical knowledge. It is important to develop positive attitudes for doing Mathematics among students. It is necessary to produce done for mathematics among pupils by the people involved in the process of teaching learning.

There are some probable causes for the problem of lack of interest towards Mathematics among the students, which are- lack of practicing Mathematics at school and at home by pupils, untrained Mathematics teacher, lack of teaching aids, lack of proper understanding by the pupils as well as by the teacher.

Pupils who find Mathematics difficult, they do not give enough time in practicing the Mathematics, which gradually result in weak fundamental knowledge which led to the avoidance of doing

Mathematics at home and at school. The Mathematical concepts in high classes become difficult for these weak pupils in Mathematics. Lack of trained Mathematics teacher also creates problems in teaching the subjects. A mathematics teacher passed with 80% or 90% may not be efficient in teaching the subject to his students. In this case, training can make the teacher ready with all necessary trips to teach Mathematics. Similarly, A Mathematics teacher passed with 50% or 60%; there remain 50% or 40% of the syllabus without understanding for him. Such would be teacher cannot teach his pupils well because he himself is not well in the subject.

Teacher's generally use chalk and board to teach mathematics in the classroom. But it is important to use various teaching aids relevant to the chapters to grow interest among pupils, to attract them towards the subjects and to make things easily understandable for them. But it is found that teacher hardly use teaching aids except chalk and duster in the classroom. It is very important to create love for doing Mathematics by the teacher. The mathematics teacher should always encourage his pupils to do Mathematics. He/she should also talk about the utility of Mathematics in our daily life as well as in modern science and technology. Pupils should understand the use of Mathematics in all types of human activities. Pupils having good understanding of mathematics can contribute a lot in various field of the nation progress by studying medical, engineering, technology, economics, other science subject. Mathematics is the base for the property of the nation. Therefore, it is very important to create a positive attitude among

students from school level towards mathematics and it is necessary to solve the problems faced by pupils in mathematics at the school level. The teacher has an important role in the progress of pupils. He/she can find weaknesses of pupils and can apply various techniques to remove the weaknesses.

1.3. Statement of the Study:

The study analysis the causes of " THE PROBLEM OF LACK OF INTEREST IN MATHEMATICS AMONG THE STUDENTS OF CLASS IX OF SATPAKHALI HIGH SCHOOL". It is important to investigate and identify why students dislike mathematics as compare to the other subjects. The present study was designed to create interest among the pupils in the class of mathematics, to provide some remedial measures and to motivate students toward mathematics that they can get a better way to secure good marks in mathematics.

1.4. REVIEW OF RESEARCH AND DEVELOPMENT IN THE SUBJECT- INSTITUTIONAL LEVEL:

Review of a research is a comprehensive summary of previous research on a topic. It includes surveys, scholarly articles, books, and other sources relevant to a particular area of research. Review of a research provides foundation of knowledge on topic and help to

identify areas of previous research to prevent duplication and give credit to other researchers.

Mathematics is the science that deals with the logic of shape, quantity and arrangement. Math is all around us, in everything we do. It is the building block for everything in our daily lives, including mobile devices, architecture (ancient and modern), art, money, engineering, and even sports. It is very important to learn Mathematics. But some students do not like Mathematics. They thought Mathematics is very difficult compare to other subjects.

Alamelu.P.Iyer, in his study “Problem Faced by Students While Solving Mathematics Problems” describes that the students have a fear towards the subject Mathematics. They are unable to understand the basic concepts of Mathematics and their technique due to various reasons. Students find Mathematics difficult and viewed this subject as enjoyable one. Many students feel that both the subject matter and the teaching methods are simply boring because the topics of Mathematics are difficult to understand due to its complexity. Many teachers are not using teaching learning materials regularly while teaching and majority of the students are not satisfied with the teaching method.

Again Nwoke, Bright Ihechukwu and Charles N. Ugwuegbulam, in their study “Causes and Solutions of Mathematical Phobia among Secondary School Students” describes that teachers were of positive perception of factors causing mathematics phobia among students. This includes, teaching methods, inability to solve mathematical problems,

poor teacher-students relationship, giving too many assignments, poor mathematics background, students' negative attitude towards mathematics, lack of reading materials etc. The study also revealed teachers perceived solutions to mathematics phobia among students. These includes among others, good teacher-student relationship, use of students-centered approach of teaching, counseling, positive attitude towards mathematics, improved mathematics curriculum, application of ICTs in teaching mathematics etc.

In view of the review of related researches, it has been observed that it is very important to learn Mathematics. Mathematics is a fundamental part of human thought and logic, and integral to attempts at understanding the world and ourselves. Mathematics provides an effective way of building mental discipline and encourages logical reasoning and mental rigor. In addition, mathematical knowledge plays a crucial role in understanding the contents of other school subjects such as science, social studies, and even music and art.

1.5. OBJECTIVE OF THE STUDY:

1. To find out the causes of the problem of lack of interest towards Mathematics among the students.
2. To find out remedies for the students lack of interest and attitude.
3. To create interest among the pupils in the class of Mathematics.
4. To encourage the students to do Mathematics daily.

1.6. HYPOTHESIS OF THE STUDY:

The problem of lack of interest in Mathematics among the students can be improved by using some innovative teaching aids, methods, regular exercise and by conducting frequent class tests with the help of the trained teacher.

CHAPTER-2

METHODOLOGY

2.1. METHODS/PROCEDURE:

Method is the very important concept of any kind of research study. According to Lokesh Kout, research method is of utmost importance in research process. The success or failure in attaining the objective of a task depends to a great extent upon the method through which the task is accomplished. Generally method means the procedure or process of teaching a definite end by a series of related acts which help in the attainment of the end or goal. Method involves regular steps to guide the mental process of the learner in acquiring the subject matter presented to him. Methods are the means of reaching predetermined goal.

Researcher method may be understood as all those methods that are used for conduction of researcher. Research method is a way to systematically solve the research problem. In this the researcher may use method to gather information. Research method may be understood as all those methods, thus, refer to the methods the researchers use in performing research operations. It is necessary for the researcher to know not only the research methods but also the methodology.

- Experimental method
- Case study methods
- Descriptive method

EXPERIMENTAL METHOD: Experimental method of research is a procedure to test a hypothesis in a controlled environment in order to establish cause and effect relationship between variables. Though experimental research is mainly used in laboratory settings of scientific research, it has been effectively used in non-laboratory settings like the classroom. An experiment in educational research starts with a problem that is observed by the practicing teacher. Though such problems are easy to observe and describe, the cause may be difficult to ascertain.

CASE STUDY METHOD: The term case study is used in a variety of ways. As a method of research case study is an alternative to experimental or positivistic methods and based entirely on qualitative methods. However, case study may be regarded as a combination of a variety of methods for collecting and analyzing data rather than a single method. A case study is an intensive study of the background, current status and interactions of a particular social unit. It focuses on individuals' perceptions of a given educational experience, carried out largely by means of interviews and observation. In education case study is one of the most widely used methods of research. They help in understanding of a complex issue or phenomenon. Case studies make detailed contextual analysis of a limited number of events or conditions and their relationship.

Questionnaire is a popular means of collecting all kinds of data in research. A questionnaire is used when factual information is desired. A questionnaire can be defined as a systematic compilation of questions that are administered to a sample of population from which information is desired. A questionnaire consist a series of question dealing with some psychological, educational or social topics which are given to a group of individuals with the object of collecting data regarding some problem under investigation. Generally a questionnaire in either administered personally or sent to them by mail to save time and money.

The questionnaires can be classified in terms of nature of questions which are used. Question may be asked in a closed or open form. A researcher may use any one of the two exclusively or both. Closed type questionnaire includes a set of question with fixed limited responses- Yes/No; and sometimes “no comment” or “no opinion”. The respondents are required to tick mark (✓) any one of them. In open type questionnaires individuals provides their own responses. Some of the characteristics of questionnaire are-

- ❖ Questionnaires are a simple and easy means of data collection.
- ❖ Questionnaires are very economical. The researcher need not spent much money in preparing questionnaires.
- ❖ It is also a very time saving way of collecting information.
- ❖ Questionnaires may be of closed type or open ended types.
- ❖ Questionnaires often have standardized answers which make it simple to compile data.

- ❖ It does not require as much effort from the questionnaire as verbal or telephone surveys.

In this study, the researcher have used a questionnaire consisting ten questions of closed type, and every question has “Yes” and “No” as responses. The respondents are required to select any one of them. Post test questionnaire follow the same rule.

2.4. PROCEDURE OF DATA COLLECTIONS:

The present study is basically based on the primary data. Primary data are the first-hand information. These information are collected from the source by means of field studies. Primary data are original and are like raw materials. It is the crude form of investigation. The investigator collects the primary data from the sample.

In the present study, the investigator used the survey method where observation and two sets of questionnaires are used. As the investigator entered the selected school, the investigator took permission from the headmaster of the school, explaining the purpose of the study. After that, the investigator met the teachers and explained the purpose of the study. Then the teachers were requested to fill up the questionnaire. Similarly, the students who were selected as samples were requested to answer the questionnaire.

CHAPTER-3

FEEDBACK/COLLECTION

Feedback is an essential part of education and training programs. It helps learners to maximize their potential at different stages of training, raise their awareness of strength and areas for improvement, and identify actions to be taken to improve performance. Feedback can be seen as informal or formal. Feedback is part of the overall interaction between teacher and learner not a one way communication.

3.1. PRE-TEST:

Pre-test is an important part of Action Research. Pre-test is a test or questionnaire given before some treatment begins. Pre-test is done to collect student's opinion about which the researcher wants to study and to recognize the factors behind the problems he wants to study. Pre-test is a test where some relevant questions are put to get true, free and frank answers from the pupils which can help the researcher to find out remedial to remove the problems faced by students in learning. Pre-test help the researcher to understand the real situation and the factors causes learning difficulties.

IMPORTANCE OF PRE-TEST:-

- To measure the amount of pre testing knowledge on the topic.
- To compare the starting point with the ending point.

It was decided to conduct a pre-test including the self constructed questionnaire. The investigator prepared the questionnaire also for the pre-test of the students. But she could not collect the data from the students. Because of COVID-19 widespread pandemic, the school got closed and internship could not be continued. So, the investigator was not able to collect the data from the students.

3.2: REMEDIALS

After conducting the pre- test, various causes of lack of interest in Mathematics among the students can be identified by the investigator and then following remedial measures can be adapted to increase the interest of the students regarding the subject of Mathematics, and develop their understanding of Mathematics and also make them confident about the subject Mathematics,

1. Firstly, some motivational techniques can be use to motivate the pupils to do Mathematics. The investigator can give the students a lecture on the need and utility of Mathematics in daily life and in the present modern world and how mathematics is useful for every walk of life, the contribution of Mathematics in the progress of human life and civilization
2. The investigator can be use some TLMs relevant to Mathematics to make the presentation more vivid, to make the students understand the subject matter easily and to increase their power of imagination. These TLM's play a significant role in growing interest of the pupils in Mathematics.

3. The investigator can use audio-visual aids apart from teaching-learning materials. The use of audio-visual aids greatly enhanced their interest and they were efficient in understanding the subject matter. Thus audio-visuals aids play a vital role in teaching-learning process. This helps the pupils to motivate towards the subject of mathematics and also their anxiety can be reduce.
4. The investigator can be involving the students to do some mathematical problems again and again to make them understand clearly and properly. It helps to growing interest and love to do mathematics among the pupils.
5. The pupils can suggest practicing Mathematics daily at school for one hour after the classes over. They can advise to give more time in practicing Mathematics at home by the investigator.
6. The investigator can hold a competition of solving some Mathematical problems among the pupils in the classroom. It can be notice that the pupils participated actively and they enjoyed the competition. Then the pupils are found to develop a positive competitive attitude in learning Mathematics and solving mathematical problems individually.

With the help of these remedial measures the problem of the lake of interest towards Mathematics among the students can be improve.

3.3. POST TEST

Post test is an essential step in conducting an action research. Post test is a test or questionnaire given to the pupils to answer after applying the remedial teaching. This post test helps the investigator to find out whether his remedial teachings were effective in solving the problems faced by pupils regarding the research topic. Post- test is done on the basis of pre- test and remedial teachings. Post- test data collected from the pupils are satisfied or dissatisfied with the new teaching techniques of the investigator. The investigator can change the techniques regarding the problem when she find it necessary after conducting the post- test and collecting the response sheet from the pupils.

IMPORTANCE OF POST-TEST:-

- It allows us to measure or see what is learned.
- It helps to measure true learning.
- It gives more knowledge on particular topics.

CHAPTER-4

ANALYSIS & INTERPRETATION OF DATA:

Analysis and interpretation of data is a complex and important task in research process that forms an important part of the research report. Analysis and interpretation of data involve complex procedures including satisfied calculation. However, analysis and interpretation of data in case of Action Research is relatively similar than formal research process. Various user friendly procedures can help an action researcher or practitioner to analyze and interpret action research data. The main purpose of the data analysis and interpretation phase in Action Research is to highlight the data collected into credible evidence about the development of the intervention and its performance. Analysis can help answer some key question like- (1) has the program made a difference? (2) How big is this difference or change in knowledge, attitudes or behavior?

The Methods usually covers 3 steps which are-

- (1) Organizing the data for analysis.
- (2) Describing the data.
- (3) Interpreting the data.

While writing the action research report, the researcher should explain and describe the various methods and procedures used for data analysis and interpretation. Data analysis and interpretation lead to better understanding of the phenomenon under investigation and

development of insight about how the situations could be improved. Analysis of data is a process of inspecting, cleaning, transforming and modeling data with goal of discovering useful information, suggesting conclusions and supporting decision making.

4.1. ANALYSIS OF PRE-TEST:

The investigator had collected questions for the fulfillment of a questionnaire:

TABLE-1: Questionnaire of pre-test:

S L N O	Statement	Respon se of Yes	Percent age of Yes	Respon se of No	Percenta ge of No
1	Do you enjoy doing Mathematics?	10	20	40	80
2	Do you like this subject?	10	20	40	80
3	Do you face problems in understanding Maths?	40	80	10	20
4	Do you practice Maths daily?	11	22	39	78
5	Do you afraid of Mathematics?	36	72	14	28
6	Do you find Mathematics very difficult?	44	88	6	12
7	Is your Maths text book interesting?	8	16	42	84

8	Is your Maths teacher efficient in teaching the subject?	40	80	10	20
9	Does your teacher use teaching aids daily?	1	2	49	98
10	Do you think you can get good marks in Mathematics by practicing more time than before?	24	48	26	52

4.2. ANALYSIS OF POST-TEST:

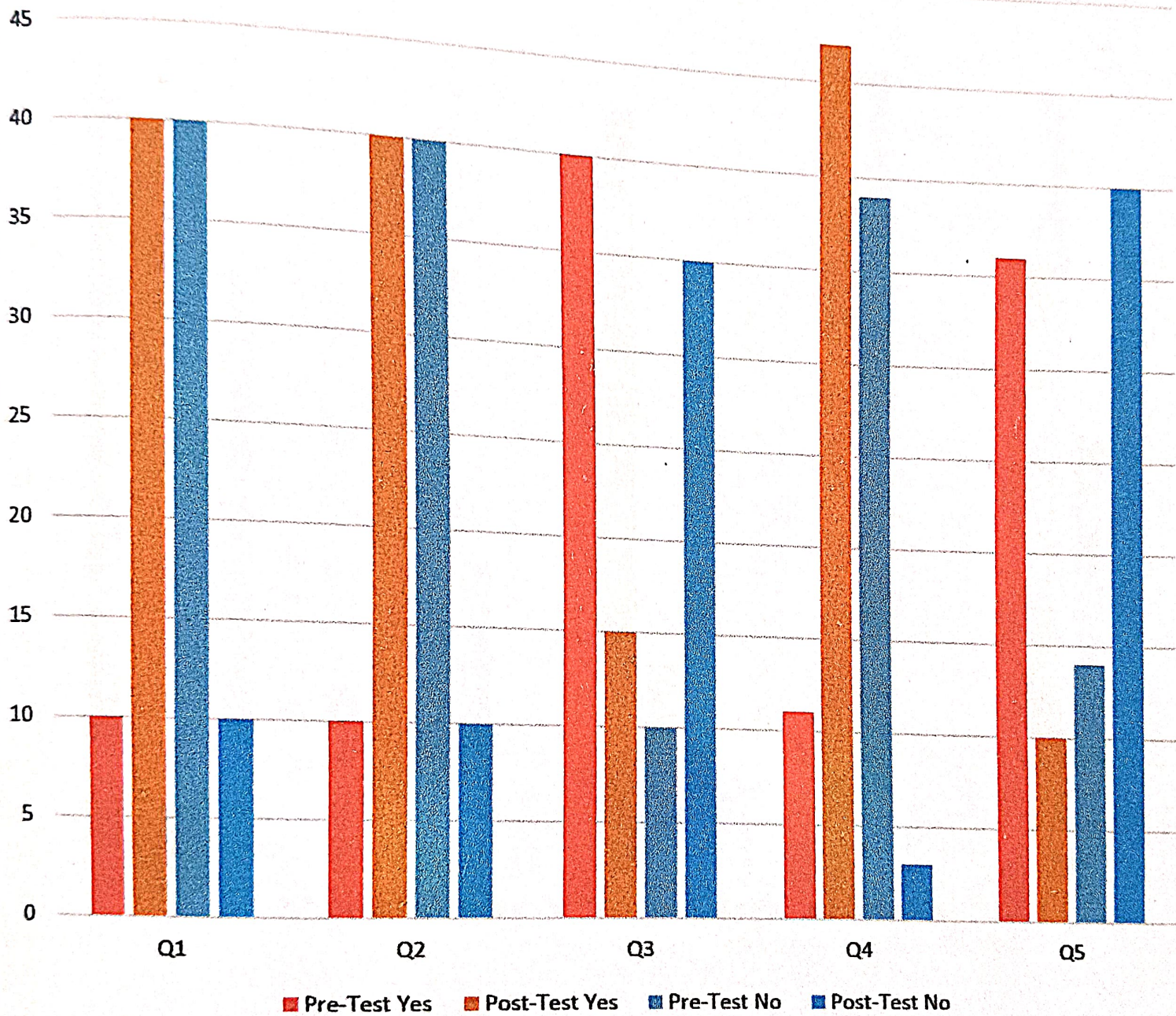
The investigator had collected questions for the fulfillment of a questionnaire:

Table – 2: Questionnaire of post-test:

S L N O	Statement	Respon se of Yes	Percent age of Yes	Respon se of No	Percenta ge of No
1	Now do you enjoy doing Mathematics?	40	80	10	20
2	Now do you like this subject?	40	80	10	20
3	Now do you face problems in understanding Maths?	15	30	35	70
4	Now do you practice Maths daily?	47	94	3	6

5	Now do you afraid of Mathematics?	10	20	40	80
6	Now do you find Mathematics very difficult?	17	34	33	66
7	Now is your Maths text book interesting?	34	68	16	32
8	Now is your Maths teacher efficient in teaching the subject?	45	90	5	10
9	Now does your teacher use teaching aids daily?	50	100	0	0
10	Now do you think you can get good marks in Mathematics by practicing more time than before?	48	96	2	4

Pre-Test & Post-Test



4.3. COMPARATIVE ANALYSIS BETWEEN PRE-TEST AND POST-TEST:

Table – 3; The comparison of pre-test and post-test:

SL NO	After Pre-test Percentage of		After Post-test Percentage of	
	Yes	No	Yes	No
Q. 1	Yes	20	Yes	80
	No	80	No	20
Q. 2	Yes	20	Yes	80
	No	80	No	20
Q. 3	Yes	80	Yes	30
	No	20	No	70
Q. 4	Yes	22	Yes	94
	No	78	No	06
Q. 5	Yes	72	Yes	20
	No	28	No	80
Q. 6	Yes	88	Yes	34
	No	12	No	66
Q. 7	Yes	16	Yes	68
	No	84	No	32
Q. 8	Yes	80	Yes	90
	No	20	No	10
Q. 9	Yes	02	Yes	100
	No	98	No	0
Q. 10	Yes	48	Yes	96
	No	52	No	04

Graphical representation also shown.

4.4 FINDINGS OF THE STUDY:

Findings are the principal outcomes of a research project; what the project suggested, revealed or indicated. This usually refers to the totality of outcomes, rather than the conclusions or recommendations drawn from them. But it's important to remember that the findings of a study do not prove anything. Findings can only confirm or reject the hypothesis of the study.

Here, the findings are given below-

1. The investigator has found that maximum number of students of class IX do not like mathematics. But after giving remedial measures the investigator has found that the students become interested towards the subject.
2. From the pre-test the investigator have seen that most of the teachers do not use teaching aids while they teach mathematics for the class. Therefore they remain uninterested towards the subject. But after using teaching aids they are able understand easily.
3. Before giving remedial measures the percentage of students who like mathematics was very low. But after giving remedial measures the percentage increases significantly.

CONCLUSION:

Action research is to help the practitioner to improve or refine his practice or actions. Action research is well organized procedure of investigation carried out by and for the practitioner who take the action. This study helps to find solution of immediate classroom problem. Action research is very important. It can help the students to improve their own quality. It can diagnose and determine the strength and weakness of students.

Here, the investigator went through the conceptual background of the study, significance of the study, objectives and action hypothesis of the study, methods used in the study, population and sample description as well as give suggestion and recommendation in his study "The Problem of Lack of Interest towards Mathematics among the Students".

This problem of lack of interest towards Mathematics is seen not only among the students of Satpakhali High School but it's a common problem among students of other schools also. By applying the remedial measures mentioned in the research report the teacher can remove this problem among students. Also the suggestions and recommendations mentioned in this study definitely help other teachers in the classroom to create the interest towards mathematics in the students mind.

BIBLIOGRAPHY

A. Books:

- ❖ Saikia, Dr Mukul. (2021). *An Introduction to Action Research*. Panbazar, Guwahati: Anupam Dutta, Mani Malik Prakash.
- ❖ Pathak, Guptajit (2013). *Action Research and Project*. Guwahati: Surya Prakash.

C. Website/Website Articles:

- ❖ Karadimos, Mark (30 July 2014). Why Must I Learn Math: Mathguide.Com
- ❖ Wikipedia (25 May 2014): Pre Test and Post Test Probability.Google.Com.
- ❖ Nwoke, Bright Ihechukwu, Charles N. Ugwuegbulam: Causes and Solutions of Mathematical Phobia Among Secondary School Students.Goolgle.com
- ❖ Alamelu.P.Iyer :Problem Faced by Students While Solving Mathematics Problem.Google.com
- ❖ researchgate.com
- ❖ Owlcation.com

APPENDIX – 1

SELF CONSTRUCTED QUESTIONNAIRE FOR PRE-TEST

Information Blank-

Name of the student-

Sex-

Name of the School-

Class-

PLEASE TICK (✓) IN THE APPROPRIATE BOX:

Q. No. 1: Now do you enjoy doing Mathematics?

Yes ☐ No ☐

Q. No. 2: Now do you like this subject of Math?

Yes ☐ No ☐

Q. No. 3: Now do you face problems in understanding Mathematics?

Yes ☐ No ☐

Q. No. 4: Now do you practice Mathematics daily?

Yes ☐ No ☐

Q. No. 5: Now do you afraid of Mathematics?

Yes ☐ No ☐

Q. No. 6: Now do you find this subject of Math easy?

Yes ☐ No ☐

Q. No. 7: Now do you find Math text book interesting?

Yes ☐ No ☐

Q. No. 8: Now do you think your Math teacher is efficient in teaching Math?

Yes ☐ No ☐

Q. No. 9: Now do your Math teachers use teaching aids daily?

Yes ☐ No ☐

Q. No. 10: Now do you think you can get good marks in Math by practicing more time than before?

Yes ☐ No ☐

APPENDIX -2

SELF CONSTRUCTED QUESTIONNAIRE FOR POST-TEST

Information Blank-

Name of the student-

Sex-

Name of the School-

Class-

PLEASE TICK (✓) IN THE APPROPRIATE BOX:

Q. No. 1: Now do you enjoy doing Mathematics?

Yes ☐ No ☐

Q. No. 2: Now do you like this subject of Math?

Yes ☐ No ☐

Q. No. 3: Now do you face problems in understanding Mathematics?

Yes ☐ No ☐

Q. No. 4: Now do you practice Mathematics daily?

Yes ☐ No ☐

Q. No. 5: Now do you afraid of Mathematics?

Yes ☐ No ☐

Q. No. 6: Now do you find this subject of Math easy?

Yes ☐ No ☐

Q. No. 7: Now do you find Math text book interesting?

Yes ☐ No ☐

Q. No. 8: Now do you think your Math teacher is efficient in teaching Math?

Yes ☐ No ☐

Q. No. 9: Now do your Math teachers use teaching aids daily?

Yes ☐ No ☐

Q. No. 10: Now do you think you can get good marks in Math by practicing more time than before?

Yes ☐ No ☐