

# Action Research Journal of WGCE

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## DIFFERENT SECONDARY SCHOOL SUBJECTS OF SEBA SYLLABUS



WEST GUWAHATI COLLEGE OF EDUCATION

Templeghat, Pandu  
Guwahati - 781012, Assam



# **ACTION RESEARCH JOURNAL OF WGCE**

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OF  
SEBA SYLLABUS**



**WEST GUWAHATI COLLEGE OF EDUCATION**  
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## *Message*

*I am delighted to learn that the first issue of our Action Research Project is being brought out. I am sure it will widen due inquisitiveness of our faculty as well as the student-teacher trainees. As teachers it is our duty to ignite utilize the sparks of ignite with multitude activities in diversified platform. It is a novel opportunity for the faculty as well as the student-teachers to work in research world.*

*Action Research Project by the research wing of WGCE is one such pulpit which exhibits the research outlook of due students-trainees. It displays the enthusiastic research work done by the students' trainees. In short, it is a research platform in itself enriched with the informative write ups by the student-teacher trainees as well as the faculty of WGCE.*

*Best wishes to the research wing for bringing out this beautiful Action Research Project as an asset of the college.*

**Gitanjali Choudhury**  
*Principal cum Secretary*

## ***Chief Editor's feature***

*Teacher Training Institutions are on the process of series of changes in the recent years which have resulted in updating, transformation and innovation of thinking, action and reflexive skills among the individuals. In this modern era it is essential to face the challenges and adjustment of new situation with zeal and devotion. With this end in view, an Action Research Journal has been contemplated by West Guwahati College of Education for exploration of talent and interest not only among the teacher trainees, teacher educators, researchers, administrators or any other individual interested in this area.*

*This is the inaugural issue of the Action Research Journal of West Guwahati College of Education, aimed at dealing with the theme on DIFFERENT SECONDARY SCHOOL SUBJECTS OF SEBA SYLLABUS. This issue comprises of certain pertinent issues which the teachers of a secondary school do face in. Effort is made to highlight the problems and their solutions to the best possible way. This inaugural issue dealt with Secondary School Subjects is Social Science, Mathematics, History, Science, English language, Computer Science.*

**Dr. Parijat Chakrabarty**

# A STUDY CONDUCTED TO FIND OUT THE CAUSES OF THE LACK OF INTEREST IN SOCIAL SCIENCE AMONG THE STUDENTS OF CLASS- IX OF A SECONDARY SCHOOL

**Debika Debnath**

*Action Research Investigator*

## INTRODUCTION

In the newly formulated B.Ed. course, Gauhati University has introduced a new discipline namely, Action Research, which is the way for a professional to continue and to learn by making use of certain simple set of ideas and techniques. In simple words, action research is basically an 'on the spot study' which is conducted by a practitioner to solve the local and small problems occurring in his practice field. The application of this research in the educational field has proved to be very useful.

The term 'Action Research' was coined out by Kurt Lewin in the year 1946. Kurt Lewin is regarded as the founder of Action Research. But the term 'Action Research' was introduced to the educational community by Stephen Corey and his associates at Teachers' College of Columbia University in 1949. Corey believed that the traditional researches which were mainly done by the researchers outside the school had little influence on school practices but for improvement in school operations, a more simplified research methodology was required which could relate itself with the school activities. Thus, action research was introduced in the educational field, which is a very simplified and systematic research. It is used by the teachers, supervisors and administrators to improve their decisions and actions in their practise field. It involves classroom problems or questions that are directly important to the practicing educators or teachers. A teacher can solve the problems occurring in his practical field through this research very conveniently. The knowledge of action research methodology provides the teaching professionals, working in the education system, with a systematic as well as reflective approach to address the areas of need within their respective domains.

Hence, the University, with the inculcation of Action Research in the B.Ed. syllabus, has made the course more effective and efficient. With the knowledge of this new discipline of research, the student-teacher would be able to solve the problems arising in their practice field in the near future very easily and make their practice field more conducive. As it does not require any critical techniques, methods or rules to be followed, hence any practitioner

will be able to conduct this research without any specialised training. Action research uses a very simple and systematic methodology which is participatory in nature and offers multiple beneficial opportunities for those professionals working within the teaching-learning set up. In a broader sense, action research has been directly linked to the professional growth and development of teachers.

According to Hensen, action research (a) helps teachers develop new knowledge directly related to their classrooms, (b) promotes reflective teaching and thinking, (c) expands teachers' pedagogical repertoire, (d) puts teachers in charge of their craft, (e) reinforces the link between practice and student achievement, (f) fosters an openness toward new ideas and learning new things, and (g) gives teachers ownership of effective practices.

Moreover, action research workshops can be very useful to replace the traditional, ineffective teacher in-service training as a means for professional development activities.

### **Concept or theoretical background of the study-**

As per the B.Ed. course, newly framed by the Gauhati University, the student-teachers are required to prepare an Action Research project on any particular problem arising in the prevalent educational setting.

*Here, the topic on which an Action Research has been conducted is-*

***"Causes of the lack of interest in Social Science among the students of class-IX"***

The subject Social sciences encompass diverse concerns of the society and include a wide range of content drawn from the various disciplines of History, Geography, Political Science, Economics and Sociology. Social sciences are the advanced studies of human society that is ought to be taught to the matured students. The purpose of this subject is to find out new truth about human relationships and the environment. Social sciences form an important part of the core-curriculum. The scope of the subject is very vast.

Studying the subject, Social sciences is very important for many reasons. Some of them are enlisted below:

- # It enables children to understand the nature of the society in which they live.
- # It assists the students to learn how the society is structured, managed and also about the forces seeking to transform and redirect it in various ways.
- # It assists them to appreciate the values enshrined in the Indian Constitution such as justice, liberty, equality and fraternity.
- # It also helps the students to understand and appreciate value of the unity and integrity of the nation and to contribute to the building of a socialist, secular and democratic society.



It helps them to grow up as active, responsible and reflective members of society and learn to respect the differences of opinions, lifestyles and cultural practices that co-exist in the society.

But the popular perception about Social Science is that it is a non-utility subject. From the initial stages of schooling, it is often suggested to students that the natural sciences are superior to the social sciences, and are the domain of 'bright' students. As a result, low esteem governs the classroom transaction process, with the students feeling uninterested in comprehending its contents. There is a widespread belief that Social Science merely transmits information and is entirely a text book centered subject.

It is again believed that the content of these text-books are unrelated to the daily realities. It is also felt that the subject matter of Social Science requires to be memorised for examination and the examination paper too rewards the memorisation of these facts and ignores the children's conceptual understanding.

Another perception is that not many desirable job options are available for the students specialising in the Social sciences. In addition, it is felt that the subject matters of social sciences are unrelated to the 'skills' required to function in the real world. This produces the impression that the subject is redundant.

All these perceptions lead to the decrease in the interest of the students to study the subject Social Science. This creates inattentiveness among the students in the Social Science class. This problem of inattentiveness in turn hinders the performance of the students in the examinations.

There are certain instances, existing in the Social Science class, which can help a teacher in realising and recognizing the existence of the problem of lack of interest among the Less attention of the students in the Social Science classes

The teacher mostly finds the pupils paying less attention in the class while teaching them the subject matters of Social sciences. They do not seem to listen to the lecture being delivered by the teacher willingly rather it becomes a difficult task for the teacher to make their students attentive in the class. This tendency among the students reflects their lack of interest in the subject.

### **1. Tendency of not completing the home assignments**

The students mostly have a tendency of not completing their home assignments allotted to them by the teacher. This may also be the result of the lack of interest among the students.

### **2. Inability to answer the questions related to the topics taught earlier**

The students whenever asked any questions related to the topics that are already taught to them, only few pupils can answer the questions. Most of the students do not find any interest in going through the subject matters already taught in the class, during their

leisure time and lack of revision makes the pupils forget the known subject matters.

### **3. Poor performance in examinations**

Poor performance of the students in Social sciences in the examinations and scoring less mark can also be the result of lack of interest of the students in the subject.

### **Rationale or significance of the study**

There are many things that influenced the investigator to conduct a study on this tendency of lack of interest in the subject Social science among the students. Some of them are enlisted as under-

1. To find out the specific reasons for the lack of interest among the students in the subject Social Science.
2. To find out the deficiencies in the teaching-learning techniques and strategies followed by the teacher.
3. To find out the remedial measures by which the interest of the students can be regained in the subject Social Science.
4. To ensure the total development of the personality of a student, this can never be possible without the knowledge of Social Science.

### **Objectives of the study**

1. To find out the probable reasons for lack of interest among the students of class-IX in Social Science.
2. To figure out simple remedial measures for increasing the interest of the students in the Social Science.
3. To enhance the classroom teaching-learning procedure in Social Science class.
4. To improve the performance of the students in Social Science.

### **Action Hypothesis**

# Required time period- The time required for the various activities that would be undertaken by the investigator is listed in Table-I given below:

**Table No. : A Time required for the various activities undertaken in the research**

Sl. No	Activities undertaken in the study	No. of days required
1.	Selection of the topic	3days
2.	determining the objective of the study.	2 days
3.	Determining the action hypothesis.	2 days
4.	Selection of the method to be used in the study.	3 days
5.	Selection of the tools that would be used for data collection.	1 day.
6.	Preparation of the questionnaire	3days
7.	Pre-Test of the first draft of the questionnaire	2days
8.	Application of the remedial measures and framing of the final questionnaire.	3days.
9.	Collection of the required data using the pre determined tools.	6days
10.	Analysing the collected with appropriate method.	5days.
11.	Suggestions and recommendations based on the study.	2 days.
12.	Conclusion	1day
	<b>TOTAL</b>	<b>33 Days</b>

From Table No. 1 it is clear that the activities related to the study may require 33 days in total to get completed in an appropriate and efficient manner.

### **Other hypothesis**

1. Activity oriented teaching will increase the interest of the students in Social Science, as they would get the chance to actively participate in the teaching-learning process.
2. Use of improvised teaching aids will increase the interest of the pupils in the subject, Social Science.
3. Positive attitude of the teacher towards the pupils may enhance the interest of the students in Social Science.
4. Learner-centered teaching procedure will enhance the interest of the students in Social Science.

### **Method adopted**

There are several qualitative research methods commonly adopted in action research, namely; case study, experimental research, survey method, diagnostic method etc. Irrespective of the research method adopted by the researcher, the techniques applied for data collection are more or less similar. Here, for conducting the study on the pre-determined

topic, the 'Survey method' was adopted by the investigator.

The Survey method is the technique of gathering data by asking questions to people who are thought to have desired information. A formal list of questionnaire is prepared. Generally a non disguised approach is used by the investigator in this method of research. In a survey method, direct (or indirect) contact is made with the units of the study (e.g., individuals, organizations, communities etc.) by using systematic methods of measurement such as questionnaires, interviews, observations. Surveys often assess the preferences and attitudes of individuals and many investigators also employ self-report scales to measure people's opinions and judgements about different items presented on a scale.

The tools for data collection that are used commonly in the survey method are-

### 1) Questionnaire:

Questionnaires are the most commonly used tool in survey research. It is described as a self-prepared document that contains the answers to which are to be provided personally by the responded. It is widely used in educational research to obtain information. The purpose of the questionnaire is to collect the opinions, perceptions, interests and attitudes of the respondents. However, the results of a particular survey are worthless if the questionnaire is written inadequately. Questionnaires should consist of relevant questions and must start with easy questions rather than sensitive or hard to remember questions. There are three types of questionnaires such as-

- a) *Closed type questionnaire*- In this type of questionnaires, the answers restricted or closed. The respondents have to choose the answers from among the given choices. They are required to put a tick mark or a check mark against the choice of answers given sometimes the respondent may have to mark either 'yes' or 'no'; otherwise they have to rank the choices given.
- b) *Open type questionnaire*- These type of questionnaires are unrestricted ones in which the respondents are free to give any answer according to their opinions.
- c) *Mixed type questionnaire*- In mixed type questionnaires there will be both closed type questions as well as open type questions.

### 2) Interview-

An interview is a direct face-to-face attempt to obtain reliable and valid measures in the form of verbal responses from one or more respondents. It is a conversation in which the roles of the interviewer and the respondent change continually. It is a technique of gathering data from respondents by asking questions and getting them to react verbally. There are many different ways of conducting interviews such as-

- a) *Structured interviews*- These interviews are widely used in surveying opinions, beliefs and perceptions of people.
- b) *Semi-structured interviews*- These interviews consist of a list of open-ended

questions based on the topic areas the researcher intends to study.

- c) *Unstructured interviews*- These interviews are used to find out about a specific topic but have no structure or preconceived plan or expectation as to how the interview will proceed.

### 3) Observation-

Observation is a very important means for collection of data. Observation is the technique of obtaining data through direct contact with a person or group of persons. It implies the use of visual ability of the observer in a controlled situation. It is a direct method which makes the qualitative study aiming at discovering the subjects' experiences. Since, the main focus of qualitative research is naturalism; the researcher has to observe person or persons in their natural state as undisturbed as possible. It involves noting down of the phenomenon as they occur with regard to the cause and effect relationship.

#### Description of the population-

**Students**- The total numbers of students of class-IX i.e., 40 students of a secondary school were studied. The entire population of the class was interviewed as a whole by using questionnaires.

**Teachers**- Two teachers among the four social science teachers of the school were interviewed. The information collected from them represented the point of view of the Social science teachers of the school regarding the concerned problem "lack of interest among the students of class-IX in Social Science" that is studied.

#### Tools of data collection-

**Interview**- With the due permission of the Principal of the Secondary School, two among the four Social science teachers were interviewed by the investigator. And a face to face interview was conducted by the investigator, where certain informal questions were asked by the researcher related to the topic on which the study is conducted.

**Controlled observation**- With the due permission of the Principal of the Secondary School and the Social science teacher as well, the investigator was allowed to observe the Social science classes of class-IX for three (3) consecutive days. The investigator, here, was just a passive observer and could observe the classroom behaviour of both the teacher and the students in the teaching learning process.

#### Questionnaire-

##### i) Questionnaire for teacher- (21 items)

A questionnaire was prepared for the teachers which consisted of 21 items. The items included in the questionnaire were based on certain priority areas. The priority areas are given as under-

**Personal information**  
**Classroom management**  
**Methods and strategies of teaching**  
**Nature of the students**  
**Nature of the subject**

**ii) Questionnaire for the students: (16 items)**

A questionnaire was prepared for the students also which consisted of 16 items. The items included in the questionnaire were based on certain priority areas. The priority areas being enlisted as under-

**Personal information**

**Syllabus**

*Students' likes/dislikes*

*Students' preferences regarding future studies*

*About the subject, Social science*

*About Social science teacher*

**# Procedure of data collection-**

With the due permission of the Principal of the Secondary School, the data collection procedure (from the teachers as well as the students, who were concerned with the subject matter of the action research) was conducted by the investigator.

**# Procedure of data collection from Teachers**

After receiving the permission, the Social science teacher of class-IX was approached with a questionnaire which he filled up according his own leisure time and the investigator collected it on the next day, as per the convenience of the teacher.

Another teacher, teaching the same subject in that particular school was also approached with a questionnaire, which she filled on the very spot and thus the investigator could collect it then and there.

Further more, both the teachers were interviewed by the investigator, personally with some verbal questions. In the face to face interview, certain informal but necessary questions related to the concerned topic were asked by the investigator and very essential information related to the research topic were received by the investigator.

**Data from students:**

With the due permission of the Principal of the Secondary School and the class teacher of class-IX, one period was allotted to the investigator to collect data from the students. In that period the investigator explained the subject matter of the study to the students and along with that the questionnaires which were prepared for the data collection were provided to them. The students filled those questionnaires within 25 minutes and the investigator collected them.

### **Data from classroom:**

The investigator (on the basis of a humble request) was also allowed by the Principal of the school to observe the Social science periods of class-IX for 3 consecutive days. The investigator used to sit on the last bench along with the students and observed the methods and techniques adopted by the teacher while teaching Social Science and it was also easy for the investigator to observe whether the students actively participate in the teaching learning process or just remain passive listeners in the classroom. This allowed the investigator to find out the behavioural patterns of both the teacher and the students during the Social science class. Through these observations the investigator could assess the tendencies of the students and the teaching methods of the teacher.

### **FEEDBACK**

#### *Pre-test:*

Before using the questionnaire as a tool for collecting information, it must be properly tested. The pre-testing increases the accuracy of the questionnaire, helps in maintaining the sequence of the questions and makes it more systematic.

Thus, after preparing the most important tool for the study i.e., the questionnaires by the investigator involving the relevant questions in accordance with the requirement of the research, the first drafts of both the questionnaires were approached to two experts for the scrutinisation of the questions included in the questionnaires. This scrutinisation helped in making the questionnaire more accurate.

**[Refer Annexure- A(i), B(i)]**

#### *Remedial measures:*

Both the questionnaires (one for the teacher and the other for the students) were scrutinised by the two experts. They gave certain suggestions to the investigator for the improvement of the questionnaires, based on which some particular remedial measures were made in the questionnaires, few questions were modified, few questions were removed and some were added too.

**Questionnaire for the teacher-** The first draft of the questionnaire which was prepared for the teacher included 24 items. From these 24 items in the questionnaire, 3 items were removed and 1 item was included.

**Questionnaire for the students-** The first draft of the questionnaire which was prepared for the students included 15 items. From these 15 items in the questionnaire, 1 item was removed, 1 question was a bit modified to make it more simplified and 2 more questions were added.

#### **Post-test:**

After implementing the remedial measures, the questionnaires were reframed. Both

the questionnaires were edited so that more relevant information can be collected and analyzed correctly by the investigator to increase the accuracy of the derived result.

*Questionnaire for the teacher-* The questionnaire prepared for the teachers, after adopting the remedial measures, included only 21 items. 3 questions were removed and 1 question was added.

*Questionnaire for the students-* The questionnaire prepared for the students, after adopting the remedial measures, included 16 items. 1 question was removed from it, 1 was a bit modified and 2 more were added

[Refer Annexure- A(ii), B(ii)]

### **ANALYSIS OF THE DATA WITH APPROPRIATE METHODS**

The analysis of the data and information collected with the most suitable and appropriate statistical methods like calculation of mean, median, mode, percentages and graphical representation of the data as demanded by the study is very much essential for a study. Proper analysis and interpretation makes the study more accurate, simplified, systematic and reliable.

#### *Information collected from the teacher:*

The investigator conducted face to face interviews with the two teachers (personally) among the four Social science teachers of the school and also collected filled up questionnaires from them. The information collected from the teachers are analyzed and interpreted under the following sub-heads:

#### *Personal information*

The two teachers of the Secondary school, with whom interviews were conducted by the investigator, were both female.

1. Smt. Urmila Dasgupta (T.G.T.): Smt. Urmila had joined the Secondary school in 1996 as a teacher. She has been teaching in this school since then and has an experience of 19 years in this profession. She is the Social science teacher of class-IX in the secondary school.
2. Smt. Lalita R. Marak (T.G.T.): Smt. Lalita had joined the Secondary School in 2002 as a teacher. She has been teaching in this school since 2002 but has an experience of 12 years in the teaching profession. She also teaches the subject Social science in the secondary classes of the particular school.

#### *Classroom management*

According to both the teachers, the total number of students in the class is 40. Even though the classroom does not seem to be over crowded with 40 students but the physical arrangements of the classroom such as the furniture, proper gap between the rows of the desks and benches, tube lights, fans etc. is not appropriate for creating the most effective and efficient classroom teaching learning environment. The classroom is not enough



spacious.

Each and every student is not visible to the teacher because of the improper arrangement of the room and thus he/she needs to be very conscious and pay more attention to the students rather than the subject matter to be taught in the classroom, or else it would be very difficult to manage the class properly.

#### *Methods and strategies of teaching*

Both the Social science teachers accepted the fact that it seems quite difficult for them to employ the new and improved methods of teaching along with the improvised teaching aids. Even though they wish to employ the new innovative teaching procedures in their classroom teaching but it becomes quite complicated for them to incorporate the activity based teaching procedure as they need to complete the vast syllabus of the subject also, as per the curriculum given the board so that the students can prepare for their term end examinations properly. Moreover, they are not provided with the necessary aids and equipments required to improve their teaching methods and make the subject matter more interesting for the students.

In spite of being well informed about the various new developments in the educational field, various interesting teaching techniques and various types of improvised teaching aids, the teachers simply employ the traditional methods of teaching like chalk and talk method, lecture method, discussion method etc. and make use of teaching aids like maps and graphical charts only. Because of all such reasons there arises the problem of the lack of interest in the subject Social sciences among the students.

The teachers use to take regular tests in the class for making the proper assessment of the knowledge gained by the students from the classroom teaching. The teacher also make the use of verbal reinforcements like praising, saying motivational words to the good scorers to encourage the students and also tries to motivate the low scorers to perform better in the next exams.

#### *Nature of the students*

According to both the teachers, most of the students usually do not remain attentive during the Social sciences class. Because of the monotonous subject matter and the lengthy nature of the subject content, the students find the subject quite difficult to grasp. The teacher, thus, needs to take practical measures for grabbing the attention of the students towards the subject content while teaching. Not all but some of the students also have a tendency of not completing their home assignments allotted in the Social science class.

#### *Nature of the subject, Social science*

Both the teachers consider that the subject Social science is a bit lengthy one. This compels the teachers to incorporate the lecture method and the chalk and talk method for teaching the subject or else they would not be able to complete the entire course, as per the

prescribed syllabus, within the restricted time period and the students would not be able to prepare themselves properly from the examinations' point of view.

The teachers accept that this is one of the most important reasons for the decrease in the interest of the students in this subject.

*Information collected from the students:*

The investigator was allowed to observe the Social science periods of class-IX for three consecutive days and along with that one extra period was allotted to the investigator to collect data from each and every student of the class (among the 40 students). The investigator provided each student of the class with a questionnaire and collected the required information from them. The information collected by using both the means are analyzed and interpreted under following sub-heads-

*Likes/dislikes and attitude of the students-*

**Table No. -1: Preference of the students about the subject, Social sciences**

SL. No.	Preferences	Answer (in percentage)	
		yes	no
1.	Social Science as a favourite subject	25	75
2.	Simply like the subject Social Science	60	40

From Table no. -1, we find the following facts-

- i) Only 25% of the total number of students i.e., only 10 students among the total number of 40 students in the class consider Social science as their favourite subject.

Rest of the 30 students has mentioned the names of other core subjects as their favourite ones.

- ii) From the above table, it was found that among the 40 students, 30% of the students i.e., 12 students even do not like Social science as a core subject in their curriculum.

From the Figure No.-1 drawn above, it is quite clear that, the students relatively less prefer to study Social science than the other core subjects. Thus, comparing the number of students who consider Social science as their favourite subject and the number of students who do not at all like the subject, we can derive the fact that comparatively higher percentage of students does not prefer Social science as their core subject and this dislike creates lack of interest among the students.

*About the subject, Social science teacher-*

**Table no.-2: Opinion of the students about the Social science teacher**

Sl. No.	QUESTIONS	Answer (in %)	
		Yes	No
1	Like Social Science teacher	75	25
2	Like the way of teaching of the Social Science teacher	55	45
3	Is the method of his teaching interesting?	34	66
4	Understand the teacher's explanation	62	38
5	Find difficulty in communicating with the teacher	56	44

**From Table No. - 2, we find the following facts-**

- i) From the data collected, it was found that almost 25% of the students (i.e., 10 students among the total 40 students) do not like their Social science teacher.
- ii) From the observation and the answers of the questionnaire, it became evident that a large percentage of students i.e., 45% of the do not like the Social science teacher's way of teaching as the teacher do not use any interesting or any innovative method while teaching in the classroom.
- iii) The data also reveals to us that, 66% of the total number of pupils i.e., 26 students among the 40 students, which forms the majority section of the class, do not find the method of teaching applied by the teacher interesting.
- iv) Only 62% students are able to understand and grasp the explanation delivered by the teacher in the classroom, rest of the 38% students find it very difficult to follow the explanation of the teacher.
- v) It is found out from the survey that, almost 44% of the students in the class find it quite difficult to communicate with the teacher and express the particular problems faced by them in grasping the gist of the subject content taught to them.

Almost one-fourth of the total students of the class do not like the Social science teacher. And most of the students in the class do not even way of teaching of the teacher. Both of these factors create a kind of disinterest among the students in the subject, Social science.

Moreover, the majority section of the class finds the method of teaching applied by the teacher uninteresting; the teacher never uses any innovative or improvised aids which would complement the explanation given by her. She is mostly concerned with the completion of the vast syllabus within the restricted and limited duration of time period, as

because the students are also required to prepare for their examinations.  
*About the study habits of the students-*

**Table No.-3: Study habits of the students**

Sl. No.	QUESTIONS	Answer (in %)	
		yes	no
1.	Prefer to use guidebooks	44	56
2.	Take the assistance of private tuitions	81	19

**From Table no.-3, we find the following facts-**

- i) Almost 44% of the total number of pupils in the class prefer to use guide books or help books for studying Social science, rather than relying on the classroom explanation and clarifying their confusions and doubts from their teacher.
- ii) A huge section of the total students i.e., 81% prefer to take resort to tuition services or coaching classes for studying Social science to score good marks in the examinations. This leads to the lack of interest among the pupils in the classroom.

By observing the Figure no. 3 drawn above, we can derive out the fact that most of the students now-a-days are taking resort to the guide books, help books and tuition facilities for performing better in the examinations because in the present world good scores are very essential.

We can see that almost 44% i.e., half of the total class follow guide books for studying and moreover 81% i.e., 32 students among the total number of 40 students prefer to take resort to the tuition services. They find it very much difficult and hesitate to solve out their doubts from the subject teachers in the school.

These are very important reasons for the lack of interest among the students in the Social science class, during the classroom teaching.

*About the nature of the subject, Social science-*

**Table No. 4: Opinion of the students about the nature of the subject, Social science**

Sl. No.	Questions	Answer ( in percentage)			
		Lengthy	Uninteresting	Conceptual	Monotonous
1.	How do you find the subject, Social science?	48	14	19	19

*From Table No.-4, we find the following facts-*

By observing the data collected by the tools it was found that:

- . The largest section of the students regarded Social science as a lengthy subject,
- . 14% of the students even regarded it as an uninteresting one,
- . 19% regarded the subject to be a bit monotonous
- . Only 19% of the students regarded the subject as a conceptual one.

From the Figure no.-4 drawn above we can see evidently that almost half of the entire class population i.e., 48% of the students consider the subject Social science to be a lengthy subject, not only that 19% of the students consider it as a monotonous subject by nature and 14% of the pupils even say that the subject is uninteresting. Only 19% of the total class population has a positive viewpoint about the subject and say that it is a conceptual subject. Hence, we can say that the viewpoint of the students regarding the nature of the subject is also playing a vital role in reducing their interest in it.

**Table No. - 5: Preferences of the students regarding the sections of Social science**

No. of students (among 40) preferring the different sections of Social sciences	Sections of Social Science			
	History	Geography	Political Science	Economics
	6	12	12	10

*From Table No. 5, we find the following information-*

# By observing the data collected by the tools it was found that, the students have a varied preference regarding the various sections of the subject:

- i) Only 6 students among the total number of 40 students prefer to study the History section of the Subject, most of the students find it quite difficult to memorize the dates of the events which is very essential to score good marks in this section of Social science.
- ii) Interestingly more number of students i.e., 12 which is relatively higher section of the total population regarded that they like to study the Geography section.
- iii) Similarly, 12 students among total number 40 students prefer to study the Political science section of the subject. They like to learn about the political status and condition of their nation.
- iv) 10 students of the total students in the class prefer studying Economics section of the subject. Many of the students find it a bit critical but this 10% students like this section because of its applicability in the real life situations.

*From the Figure No.-5 drawn above we can observe clearly that relatively more percentage of students are interested in learning the Geography and Political science sections of the*

subject Social Science. Thus, it becomes very necessary on the part of the teacher to inculcate interest among the pupils in the other two sections also by using various interesting and innovative teaching aids and motivate them through activity based teaching methods which would involve more student participation in the teaching learning process. They would not be a mere observer or a passive member in the classroom teaching learning procedure during the Social science class.

Preferences of the students regarding future studies-

**Table No.6: Preferences of the students regarding future studies**

Streams	Number of Students		TOTAL
	Prefer Social Science	Not prefer Social Science	
Science	2	6	8
Commerce	2	12	14
Arts	12	6	18
<b>Total</b>	<b>16</b>	<b>24</b>	<b>40</b>

It is quite common now-a-days that the students in the secondary classes itself make decisions about their future studies such as the streams they would like to pursue for higher studies. From the data given in the Table no.-6, we find the following facts-

- i) Among the total number of 40 pupils in the class, 8 students wish to study in the science stream. Among these 8 students only 2 pupils prefer to study Social science.

Thus, we can say that, the students who wish to pursue their higher studies in the science stream, relatively have low preference for the subject Social science rather they concentrate more on the other core subjects like Science, Mathematics etc.

- ii) 14 students among the total number of 40 students would like to go for higher studies in commerce stream. Similar to the earlier group, among these 14 students also only 2 pupils have a preference to study the subject Social science, rest of them just study the subject as it is included in their syllabus as a compulsory one.
- iii) Among the total number 18 students who would prefer the arts stream for their higher studies, 12 students have positive mind set regarding the subject Social science. They prefer to study the subject. By observing the data given in the table we could easily come to the conclusion that the students who would like to

choose the arts stream for the higher studies relatively prefer more to study Social science as a core subject.

From the Figure no.-6 drawn above we can observe clearly that most of the students in the class who would prefer to continue their higher studies in the science and commerce stream relatively have a less preference for Social science.

On the other the students who wish to do further studies in the arts stream comparatively prefer more to study Social science than the other core subjects like Science or Mathematics.

*Thus, from the study conducted by the investigator various facts were found out based on the data collected by using the various tools. It was found out that a large number of factors exist which affect the interest of the students in Social science. They are-*

- i) The classroom situations are not conducive for the teaching-learning procedure i.e., the classroom is not airy; the furniture is not arranged properly etc. hence, it becomes very difficult for the teacher to manage the entire class along with creating a conducive and motivational teaching learning situation in the Social science class.
- ii) The teachers yet employ the traditional techniques and methods of teaching such as lecture method, chalk and talk method, discussion method etc. for teaching in the class rather than using the innovative and activity based methods for teaching like project method, problem solving method, excursion method etc. This happens because of the lack of time and basic facilities. The teachers are not facilitated with necessary requirements for the implication of these new methods of teaching. Moreover, they are bound to complete the prescribed syllabus within a predefined time limit which restrains the teachers from applying these innovative methods in the teaching learning process.
- iii) The teachers do not use improvised and innovative teaching aids like film strips, projectors, documentaries etc. as because they are not facilitated with such equipments. They simply use the common teaching aids like charts, maps, globe etc. This makes the classroom teaching very monotonous and uninteresting and it becomes very difficult for the students to follow the explanation of the teacher attentively.
- iv) The students find difficulty in understanding the explanation given by the teacher as she never uses interesting and simplified teaching methods. The students merely remain the passive members in the teaching learning procedure. They do not at all get the scope to participate in the process and thus, there arises a tendency of lack of interest among them in the class.

- v) The students hesitate to communicate with the teacher regarding their doubts rather they prefer to use guide books for studying the subject. Most of the students take resort to the private tuition services for scoring good marks in the examinations.
- vi) Both the teachers as well as the students consider the subject Social science as a very lengthy one. Because of the lengthy nature of the subject and the lack of time allotted for the completion of course, the teachers sometimes do not get enough to clear the doubt of the students. Moreover, many of the students are also of the view that the content of the subject is quite monotonous.
- vii) Some students also believe that for performing well in the examinations and scoring good marks in this subject, memorization power of the pupils is more essential than the formation of concept about the subject content.
- viii) The students who desire to go for higher studies in Science or Commerce streams put more stress and attention on the concerned subjects like Science, Mathematics etc. rather than Social science.

## SUGGESTIONS AND RECOMMENDATIONS

The problem of lack of interest among the students in the Social science class is a very common one now-a-days, mostly in the secondary classes. Thus, it becomes quite essential on the part of the teacher to look into the matter and take the necessary preliminary steps to reduce this negative tendency among the pupils.

Some remedial measures that can be adopted by the Social science teacher to enhance the interest of the students in the Social science class and the subject itself.

- i) *Conducive classroom management*- The interest of the students in the subject can be enhanced by arranging the classroom in a proper manner. If the classroom is spacious and comfortable, the students will attend the class and be more attentive in the class. The teacher can take an initiative in this matter by arranging the classroom appropriately and make the teaching-learning process more effective.
- ii) *Activity oriented teaching*- If the teacher employs activity oriented teaching method then the students would get full opportunity to actively participate in the teaching-learning process. This would increase their interest in the subject and they would pay more attention in the classroom teaching.
- iii) *Use of improvised teaching aids*- For influencing the interest of the students, the teacher can also utilize improvised teaching aids such as audio-visual aids like over-head projectors, film strips, documentaries etc. This would help the teacher to make his teaching more interesting and effective. This process enlivens the



classroom environment.

- iv) *Teacher-learner relationship-* For making the teaching-learning procedure effective, the teacher must maintain a cordial relationship with his pupils. The teacher's attitude towards his students must be very affectionate and caring. He must act as a friend, philosopher and guide to his pupils.
- v) *Relating the subject matters to the daily life realities-* The teacher while teaching must be able to relate the subject matters to the daily life realities of the pupils. The teacher should make the students aware of the fact that the subject Social science relates to their practical world. This would increase their curiosity about the subject.
- vi) Making them aware of the increasing career options in the service-sector for the students specializing in Social science- The teacher must make the students aware of the career options in the service-sector they would get if they specialize in Social sciences. The teacher must motivate the students to study the subject with more enthusiasm.

## CONCLUSION

From the above study, it has been quite clearly found that there are various reasons that exist in the prevailing educational system which influences the interest of the students in the subject Social science. Some of such factors are absence of conducive environment in the classroom, inability of the teachers to apply proper teaching techniques and strategies while teaching, use of traditional teaching aids and neglecting the improvised ones, inability of the teacher to maintain cordial relationship with the students, inability of the teacher to motivate the students properly, the mindset of the students regarding the subject, habit of taking resort to the use of guide books and private tuitions among the pupils for scoring good marks in the examinations etc. All these are the various factors that highly influence the tendency of the lack of interest among the students in Social science.

Thus, it becomes very essential on the part of the teacher to take necessary measures for improving the prevailing conditions and try to increase the interest of the pupils in the Social science class the teacher takes proper measures along with the maintenance of an affectionate attitude towards the students, then this problem can be reduced to a great extent.

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# LACK OF INTEREST IN STUDYING SOCIAL SCIENCE SUBJECT BY THE STUDENTS OF CLASS X IN A SECONDARY SCHOOL

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## INTRODUCTION

### 1.0 Conceptual or theoretical background of the study

*"Education is the manifestation of divine perfection already existing in man"*

- Swami Vivekananda

Education is akin to growth and development. In this sense, the span of education is as wide as that of life. This means every experience in life, every activity from the cradle to grave is education.

In formal education a curriculum (Curricula: Plural or Curriculums) is the planned interaction of pupils within instructional content, materials, resources and processes for evaluating the attainment of educational objectives. This process includes the use of methodologies and pedagogies that are interwoven through the use of digital media and/or text that address the complexities of learning. A curriculum also refers to a defined or prescribed course of studies, which students must fulfill in order to pass a certain level of education.

For example, an elementary school might discuss how its curriculum or its entire sum of lesson and teaching is designed to improve national testing scores or help students learn the basics. An individual teacher might also refer to his/her curriculum, meaning all subjects that will be taught during a school year.

According to C.B.S.E., the subjects included for High School main course studies are:

1. Hindi Pathyakram- 'A'  
Hindi Pathyakram- 'B'
2. English- Communicative  
English- Language and Literature
3. Mathematics
4. Mathematics

5. Social Science
6. Additional Subjects
7. Subjects of internal assessment
8. Pre- vocational Education
9. Work Education
10. Art Education
11. Physical and Health Education
12. National Cadet Corps

So, in the above given curriculum, in High school syllabus Social Science is included which is related to my Action Research Report problem. The Social Science encompasses diverse concerns of society and includes a wide range of content drawn from disciplinary of History, Geography, Political Science, and Sociology. But its characteristics are not determined by any of them. It's compact whole of various social sciences that aim at adjusting the students to their social environment. The curriculum of social science includes courses that consists wholly or mostly of subject matter concerning the nature or character of society. The term may however be used in the specific context of referring to the original science of society, established in the 19th century, sociology (Latin: socius, "companion"; Greek logos, "word", "knowledge", "study").

Emile Durkheim, Karl Marx and Max Weber are typically cited as the principal architects of modern social science by this definition. The history of the social science being in the Age of Enlightenment after 1650, which saw a revolution within natural philosophy, changing the basic frame work by which individuals understood what was "science". Social science came forth from the moral philosophy of the time and was influence by the Age of Revolutions, such as the Industrial Revolution and the French Revolution. The social science developed from the science (experiment and applied), or the systematic knowledge-bases or prescriptive practices, relating to the social improvement of group of interacting entities.

The beginnings of the social sciences in the 18th century are reflected in the grand encyclopedia of Diderot, with articles from Rousseau and other pioneers. The growth of the social science is also reflected in other specialized encyclopedias. The modern period saw "social science" first uses a distinct conceptual field. Social sciences was influenced by positivism, focusing on knowledge based on actual positive sense experience and avoiding the negative; metaphysical specialization was avoided. Auguste Comte used the term "science sociale" to describe the field, taken from the ideas of Charles Fourier; Comte also referred to the field of social physics. It has correlation with many different subjects.

#### **Anthropology:**

Anthropology is the holistic "science of man", a science of the totality human

existence. The discipline deals with the integration of different aspect of the social science, humanities, and human biology. In the twentieth century, academic disciplines have often been institutionally divided into three broad domains. The natural science seek to derive general laws though reproducible and verifiable experiment. The humanities generally study local traditions, through their history, literature, music, and arts, with an emphasis on understanding particular individuals, events, or eras. The social science has generally attempt to develop scientific methods to understand social phenomena in a generalizable way, though usually with methods distinct from those of the natural sciences. In the 1990s and 2000s calls for clarification of word contributes a cultural, of how an observer knows where his or her own culture ends and another begins, and other crucial topics in writing anthropology were heard. It is possible to view all human cultures as part of one large, evolving global culture. These dynamic relationships between what can be observed on the ground, as opposed to what can be observed by compiling many local observations remain fundamental in any kind of anthropology, whether cultural, biological, linguistic or archaeological.

#### **Communication Studies:**

Communication studies deals with process of human communication, commonly defined as the sharing of symbols to create meaning. The discipline encompasses a range of topics, from face to face conversation to mass media outlets such as television conversation. A communication study also examines how messages are interpreted through the political, cultural, economic and social dimensions of their contexts. Communication is institutionalized under many different names at different universities, including "communication", "communication studies", and speech communication", "rhetorical studies", "communication science", "media studies", "communication arts", "mass communication", "media ecology," and "communication and media science."

A communication study integrates aspects of both social sciences and the humanities. As a social science, the discipline often overlaps with sociology, psychology, anthropology, biology, political science, economics and public policy, among others. From a humanities perspective, communication is concerned with rhetoric and persuasion (traditional graduate programs in communication studies trace their history to the rhetoricians of Ancient Greece). The field applies to outside disciplines as well, including engineering, architecture, mathematics, and information science.

#### **Economics:**

Economics is a social science that seeks to analyze and describe the production, distribution, and consumption of wealth. The word "economics" is from the Greek [oikos], "family, household, estate," and [nomos], "custom, law", and hence means "household management" or "management of the state." An economist is a person using economic

concepts and data in the course of employment, or someone who has earned a degree in the subject. The classic brief definition of economics, set out by Lionel Robbins in 1932 is "the science with studies human behavior as a relation between scarce means having alternative uses." Without scarcity and alternative uses there is no economic problem. Briefer yet is "the study of how people seek to satisfy needs and wants" and "the study of the financial aspects of human behavior".

The expanding domain of economics in the social sciences has been described as economic imperialism.

### **Geography**

Geography as a discipline can be split broadly into two main sub fields: human geography and physical geography. The former focuses largely on the built environment and how space is created, viewed and managed by humans as well as the influence human have on the space they occupy. This may involve cultural geography, transportation, health, military operations and cities. The latter examines the natural environment and how the climate, vegetation and life, soil, oceans, water and landforms are produced and interact. Geographers attempt to understand the earth in terms of physical and spatial relationships. The first geographers focused on the science of map making and finding ways to precisely project the surface of the earth. In this sense, geography bridges some gaps between the natural sciences and social sciences. Historical geography is often taught in the college in a unified Department of Geography.

### **History**

History is the continuous, systematic narrative and research into past human event as interpreted through historiographical paradigms or theories.

History has a base in both the social sciences and the humanities.

### **Political Science**

Political science is an academic and research discipline that deals with the theory and practice of politics and the description and analysis of political systems and political behavior. Fields and subfields of political science include political economy, political theory and philosophy, civics and comparative politics, theory of direct democracy, apolitical governance, participatory direct democracy, national systems, cross-national political analysis, political development, international relations, foreign policy, international law, politics, public administration, administrative behavior, public law, judicial behavior, and public policy. Political science also studies power in international relations and the theory of great powers and superpowers.

### **Sociology**

Sociology was originally established by Auguste Comte (1798-1857) in 1838. Comte endeavoured to unify history, psychology and economics through the descriptive

understanding of the social realm. He proposed that social ills could be remedied through sociological positivism, an epistemological approach outlined in *The Course in Positive Philosophy* [1830-1842] and *A General View of Positivism* (1844). Though Comte is generally regarded as the "Father of Sociology", the discipline was formally established by another French thinker, Emile Durkheim (1858-1917), who developed positivism as a foundation to practical social research. Durkheim set up the first European department of sociology at the University of Bordeaux in 1895, publishing his *Rules of the Sociological Method*. In 1896, he established the journal *L'Annee Sociologique*. Durkheim's seminal monograph, *Suicide* (1897), a case study of suicide rates amongst Catholic and Protestant populations, distinguished sociological analysis from psychology or philosophy.

The selection and organization of material into a meaningful social science curriculum, one that will enable students to develop a critical understanding of society, is therefore a challenging task. The possibilities of including new dimensions and concerns are immense; especially in view of the students own life experiences.

Social Science is most commonly recognized as the name of a course or a set of courses taught in primary or secondary schools, but many also refer to the study of aspects of human society at certain post- secondary and tertiary schools around the globe.

At the elementary school level, social science generally focuses first on the local community and family. By middle and high school, the social science curriculum becomes more discipline-based and content-specific.

The teaching of social science is vital for many reasons. It enables children -

- # To understand the society in which they live- to learn how society is structured, managed and governed and also about the forces seeking to transfer and redirect society in various ways.
- # To appreciate the values enshrined in the Indian constitution such as justice, liberty, equality and fraternity and the unity and integrity of the nation and the building of a socialist, secular and democratic society.
- # To grow up as active, responsible and reflective numbers of society.
- # To learn, to respect differences of opinion, lifestyle and cultural practices.
- # To question and examine received ideas, institutions and practices.

The popular perception of social science is that it is a non-utility subject. As a result low self-esteem governs the classroom transaction process, with both teacher and student feeling uninterested in comprehending its contents.

Again for example, in the curriculum of B.Ed course, an Action Research paper is included for which we need to know about Action Research in theory as well as prepare a report by selecting any topic regarding a secondary school. Action Research is undertaken in B.Ed course to enable teachers, Principals, schools, administrators and guidance workers

to solve their professional problems immediately as and when they arise, on the basis of their own researches. Action Research attempts to implement Dewey's idea of involving classroom teachers in the solution of their particular problem. According to J.W Best, "Action Research is research used by teachers, supervisors and administrators to improve the quality of their decisions and actions."

As man from time immemorial has been continuously struggling with his environmental forces and trying to search ways and means for quality living on earth. In other words, he has been engaged in continuous experimentation and research for bringing improvement in his ways of life. Research on each stage has proved a potent weapon in his hand and a shortcut to progress and ultimately to success. While, in general, the history of research and invention is quite old, the need for research work in education has not been felt in so much degree as it has been in other fields. But now with a change in the aims and the structure of the teaching-learning process, this need has begun to be felt intensely. So teachers are now supposed to play a leading role in

In to out research in education. But to carry out research, as to invent something new, is not an easy nut to crack. In fact, it will be too much to expect from the teachers to take up rigorous and sophisticated research studies under the normal working hours and conditions of the schools. From the practical angle, it sounds more feasible and desirable that the teachers and headmasters must concentrate over solving the simple school and classroom problems by evolving suitable techniques and programmes through scientific approach. Action research in education is an attempt to meet such requirement.

It is relatively a new dimension in the field of research. Traditionally, it was believed that educational research is the province of the well-trained research experts only. But now, the approach of action research emphasizes encouragement to the practitioners - school teachers, administrators and others- to do research in order to improve both their own work and the functioning of schools.

The main characteristics of Action research can be summarized as follows:

- # Action research is focused on the immediate problems and their solutions within the available resources.
- # It is not concerned with the building of theories, broad generalizations and principles.
- # It aims to improve the practices or work conditions of the people who conduct such researches.
- # It involves little efforts, resources and finances in comparison to fundamental or pure researches.
- # The person who conducts the research and applies its findings is the one and the same.



- # It inculcates a spirit and an ability in the practitioners to improve their practices.
- # Its main purpose is to create such healthy and proper conditions and environment as to facilitate better teaching as well as learning for the maximum welfare of students.

In Action Research, many research projects are carried out in a single classroom situation by a single teacher. So it is important and is included in B.Ed course. Here my Action Research report topic/ problem concerns about the "Lack of interest in studying Social Science subject by the students of class X in a secondary school.

### **1.1 OBJECTIVES OF THE STUDY**

1. To find out the factors responsible for finding the subject Social Science less interesting among the students of class X.
2. To assess the ways in which the subject teacher teaches the subject.
3. To find out if the school has taken some initiatives in making the subject more interesting.
4. To analyze the factors responsible for finding the subject less interesting among most students.
5. To provide remedial measures for the aforesaid problems.

### **1.2 ACTION HYPOTHESIS**

Action Research is a practical approach to the professional enquiry in any social situation. Here we are dealing with action research project where we need to follow certain steps for the completion of the project work.

So in regard of preparing the Action Research report initially we have identified some of the problems prevailed in the secondary schools which was completed within 3 days of duration.

After identifying some of the problems present in the secondary schools we tried to select any one of the problem/topic of our interest for preparing the Action Research report. Here our teacher helped us in selecting particular topic which took the duration of 3 days.

As here the problem/topic is concerned about the "Lack of interest in studying Social Science subject by the students of class X in a secondary school", so the researcher collected the data by using Survey method. For fulfilling this purpose she made a rough draft containing 15 questions and 14 questions for the assigned subject teacher and the students respectively through which I can get data or information regarding the aforesaid problem which took about 5 days approximately.

Then the rough draft was given for scrutiny to our particular teacher and some of the questions were removed and some questions were given for making further changes. This process took almost a week.

After scrutinizing the rough draft, researcher collected final draft for making out the survey. This draft was finalized draft within 2 days.

Our task in the college was over. So we took my final draft along with the permission letter provided by our college for seeking permission to the headmaster of Government High School, Kharsang, Arunachal Pradesh. With due permission of the headmaster of that particular school, researcher approached to the assigned subject teacher and handover the blank questionnaire to the subject teacher and to the students of class X, and made them understand properly about what they need to fill up. All this took about 10 days for as researcher need to travel to Arunachal Pradesh for collecting the data regarding the topic. After 2 weeks I collected the filled up questionnaire from them.

Then by coming back to Guwahati, I started doing my analysis section where I analyzed the questionnaire of the assigned subject teacher and the questionnaire filled up by students and diagnosed the factors causing problem which took almost a week approximately for the completion.

By summing up all the major steps followed by me I started writing my report on the basis of Action Research format provided by the Gauhati University. Through proper coordination of teacher, headmaster, students I have able to complete my Action Research project within the given period of time.

### **1.3 METHOD/ PROCEDURE**

The method used while collecting the data for Action Research report was Survey method.

### **1.4 DESCRIPTION OF THE POPULATION AND SAMPLING**

I took the whole population i.e, 26 students of class X along with the single assigned Social Science teacher of Government High School, Kharsang for the purpose of collecting data for my Action Research report.

### **1.5 TOOLS FOR DATA COLLECTION**

The tools used for data collection was on the basis of questionnaire. In the questionnaire: Number of questions for teacher -> 9 questions

Number of questions for students -414 questions

### **PRIORITY AREAS:**

For teachers:-

- i) Personal Information -> Refer to the profile (Page no. 30,31 )
- ii) Curriculum related Information -> Question no. 1,2,3,4,5,6,7,8 & 9

For Students:-

- i) Personal Information -> Question no. 1,2 & 3
- ii) Curriculum related Information -> Question no. 4,5,6,7,8,9,10,11,12 & 14
- iii) Social Information -> Question no. 13

## **1.6 PROCEDURE FOR DATA COLLECTION**

First of all, I as an investigator approached to the school headmaster for seeking permission to undertake my research work.

- ❖ Secondly, I handover the questionnaire to the assigned subject teacher and made him understand for filling up the form.
- ❖ Thirdly, I circulated the questionnaire made for the students to the whole population of class X and made them understand for filling up the form.
- ❖ Fourthly, I collected the filled up questionnaire from the teacher as well as the students.

By following these steps data has been collected which made the research analysis easier and effective one.

## **2. FEEDBACK/ OPERATIONAL**

### *2.0 Pre-test:*

For the collection of the data initially I made a rough draft containing 12 questions for the subject teacher and 14 questions for the students.

For the purpose of scrutinization, out of 12 questions which were made for assigned subject teacher 3 questions were rejected by the teacher and and 3 questions were selected for further modification.

In addition to that all the 14 questions which were made for the students were scrutinized and none of them were rejected or modified.

### *2.1 Post-test:*

After scrutinizing and modification final draft has been prepared containing 9 questions for the assigned subject teacher and 14 questions for students of class X.

## **3. ANALYSIS**

Education is acquiring new dimensions. In the new education, there is a growing consciousness among heads of schools, teachers and others engaged in building sound foundations for education that a large number of educational problems require immediate attention. It is more constructive to attack these problems on spot rather than resort to the procedures of fundamental research. "Such on the spot research, aimed at the solution of an immediate problem, in generally known in education as Action Research."

Analysis in action research is the spur to reflection and the planning of the new action. Analysis within action research is about possibilities, not certainties. It is not about why things have to be as they are, but rather what possibilities for change lie within a situation. Action within a complex social world is not static; it is dynamic and forever evolving.

The problem which investigator have selected for making the Action Research report is "Lack of interest in studying Social science subject by class X students of a secondary

school. "To fulfill the objective of the study regarding this topic investigator has collected some data with the help of Survey method. There was one set of questionnaire for subject teacher and 26 set of same questionnaire for students.

For fulfilling the purpose, investigator analyzed the questionnaire of both subject teacher and students. For knowing about the personal information of the subject teacher of that particular school a profile was made carrying the questions regarding personal information of the teacher.

After that the questionnaire is analyzed where the first question asked to subject teacher was about the number of student liking the subject where there was equal distribution of students liking as well as disliking the subject.

Further the subject teacher of social science finds the textbook very good. As the textbook of NCERT is full of pictures, cartoons and also colorful which creates interesting for students to study and learn

The teacher uses teaching aids like charts, globe, and maps for teaching the subject which will make the students to understand properly and to find the subject interesting. Further it helps pupil to experience the knowledge directly, supplement the spoken word, helps in developing a sense of time and places, develop a sense of casual relationship, help making learning permanent, adds joy and interest to learning.

The subject teacher uses Chalk and Talk method while teaching which makes the student understand properly as by writing on black board makes useful for student.

There is visit to historical places also which is conducted by the school, as visiting to such kind of places or tours and travels make the students more attracted towards the subject. As it provides healthy change from the routine classroom teaching and capitalizes the urge for outdoor life of the child. Further it serves as a link between school and community.

According to the subject teacher, the main reason for lack of interest in social science subject is due to lack of attentiveness in class. Some of the students are less attentive in class because they take tuition of the subject and so, they know about the topics previously which make them find less interest in class.

As per the subject teacher, due to more pressure of home works students cannot concentrate on other subjects and lack interest in social science subject.

Also the student lack interest in some part of social science only. They lose their interest mostly in the part of Political Science.

He has taken some of the steps for making the class interesting like the use of models, charts, power point presentation. Also he asks any one of the student randomly to teach the same to which was taught in the last class, which make the student learn the topic properly and thoroughly.

There were 26 students in class X so, while 26 questionnaires was evaluated. The first three questions include the personal information of the students containing the name, age and place they stay.

In the fourth question the student were asked that whether they like to study the subject social science. Among 26 students, 12 students like the subject and 14 students dislike the subject. So, it can be seen that maximum number of students dislike the subject.

**Table No. 1 : No of students liking the social science subject**

TOTAL NO OF STUDENTS	LIKING THE SUBJECTS	DISLIKING THE SUBJECT
26	12 (46%)	14 (54%)

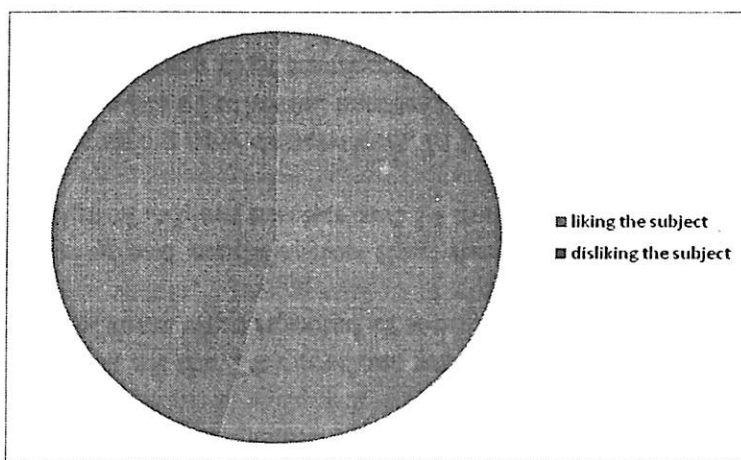


Fig (i): pie showing no. of students liking and disliking the subject

Among 26 students 4 students find the social science subject easy as they may find the textbook interesting for studying, 16 students accept the subject as medium type and 6 students accept the subject as difficult.

**Table No 2: table showing the amount of students finding the subject in different level**

FIND SUBJECT	STUDENTS	PERCENTAGE
EASY	4	15.4
MEDIUM	16	61.5
DIFFICULT	6	23.1
TOTAL	26	100

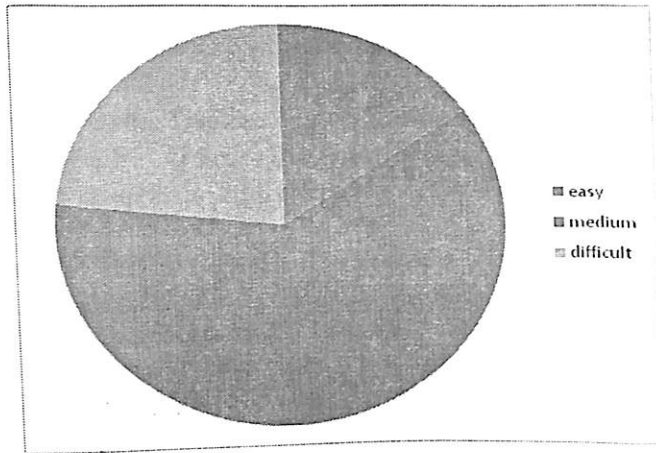


Fig (ii): pie showing the amount of students finding the subject at different level.

The next question present in the questionnaire was 'Do you understand the concept of social science?'. Out of 26 students 12 students marked 'yes' and 14 'No'. From this it can be seen that almost equal number of students understand as well as don't understand the concept of social science for which the result of school may remain average or below.

Table No 3: No of students who understand the concept of social science

TOTAL NO OF STUDENTS	Yes	No
26	12 (46%)	14 (54%)

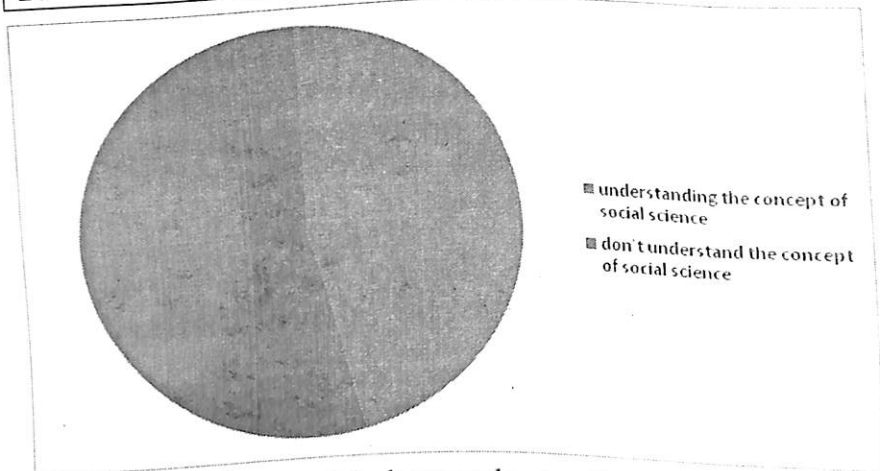
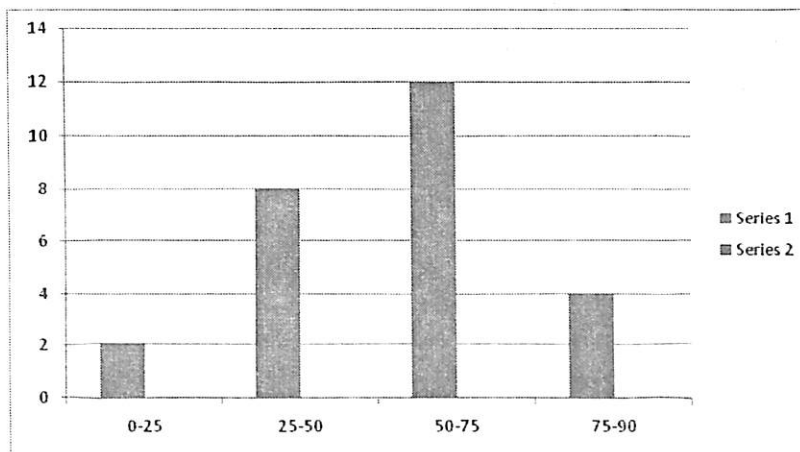


Fig No (iii): pie showing the no. of students understanding the concept in social science

Regarding their scores in half yearly examination in the subject social science, maximum number of students. i.e., 12 students scored average mark which is between 50-75, 2 students scored minimum marks i.e., 0-25 and 4 students scored highest marks which is between 75-90 whereas, 8 8 students scored between 25-50. The scoring of the students in the subject shows that almost equal number of students understands the subject so there is maximum number of students scoring average marks. Moreover it is seen that 14 students don't get the concept present in social science. The graph shows the scores of the students.

**Table No 4: marks scored by students in Half Yearly examination**

MARKS SCORED	NUMBER OF STUDENTS
0-25	2
25-50	8
50-75	12
75-90	4
TOTAL	26



**Fig (iv): Graph showing marks scored by number of students**

Moreover, more number of students, i.e., 16 students out of 26 finds their social science teacher interesting for them and rest other find their teacher uninteresting. This shows that almost 10 students out of 26 dislike the subject which is a big population of the class, which may be due to lack of use of proper method of teaching or due to improper teaching by the teacher.

**Table No. 5: No of students those who find the subject teacher interesting**

TOTAL NO OF STUDENTS	FIND SUBJECT TEACHER INTERESTING	DON'T FIND SUBJECT TEACHER INTERESTING
26	16	10

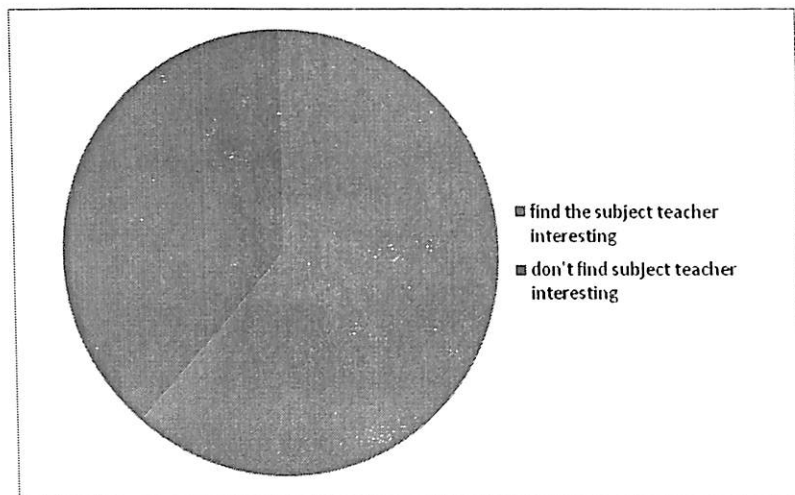


Fig (v): pie showing number of students those who find the subject teacher interesting

As told by the subject teacher in his questionnaire that he sometimes teacher the subject with the help of teacher aids so is also accepted by whole population of class that their social science teacher teaches the subject with the help of maps, globes pictures and charts.

The school also conducts Field trip, excursion, visits to historical places and museums as given 'yes' by the whole population of class in the questionnaire. Also in the questionnaire of the subject teacher it is mentioned that there is visit to historical place only which makes the students find the subject interesting to some extent.

The next question in the questionnaire was 'which part of the subject you find more interesting?' where 10 students find Geography as interesting part which is maximum as it cover the matters of earth surface. Moreover in geography some interesting pictures around the world is given. 3 students find Political Science as interesting which is minimum. 8students and 5 students like Economics and History respectively. Further if we look the percentile of the students in different parts of the students we can see that geography has 38.50%, economics scored 30.80%, history 19.20% and political science is the lowest of 11.50% of the total population.



**Table No. 6 : Number and Percentage of students interested in the parts of social science**

SUBJECT	NUMBER OF STUDENTS	PERCENTAGE
GEOGRAPHY	10	38.50
ECONOMICS	8	30.80
HISTORY	5	19.20
POLITICAL SCIENCE	3	11.50
TOTAL	26	100

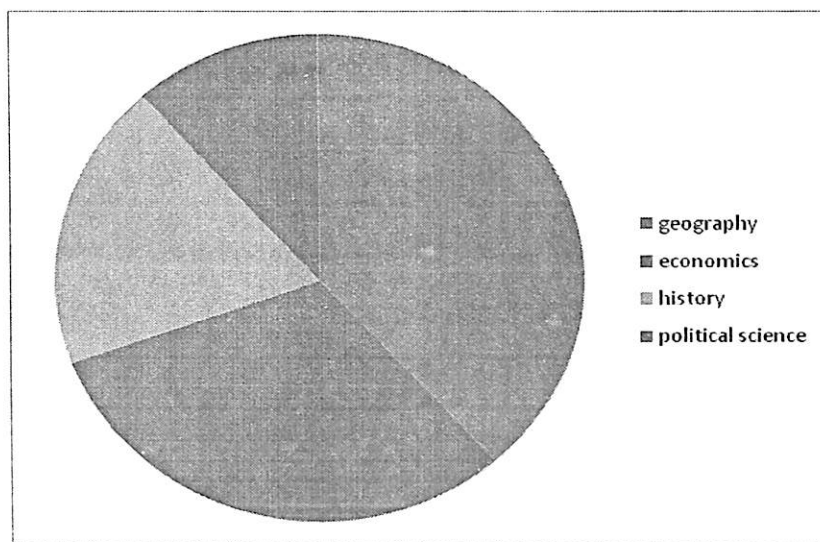


Fig (vi): Number and Percentage of students interested in the parts of social science

Then the students were asked the question that 'what subject you find most interesting in your syllabus?'. Much of them were interested in practical subject like Science. Some of them were interested in mathematics, Hindi and English. Very little population was interested in Social Science especially in parts of political science and History. Much of the population is interested in science because the present worlds demands students from science and can easily avail jobs.

Among 26 students, 18 student's parents cooperate with them while studying and parents of rest 8 students don't find any cooperation from their parents. Here the non-cooperation of parents may be due to poverty and illiteracy for which they don't concern more about studies and give much preference to job or some work.

**Table No.7: Students get parents cooperation while studying**

TOTAL NO. OF STUDENTS	PARENTS COOPERATION	PARENTS NON-COOPERATION
26	18	8

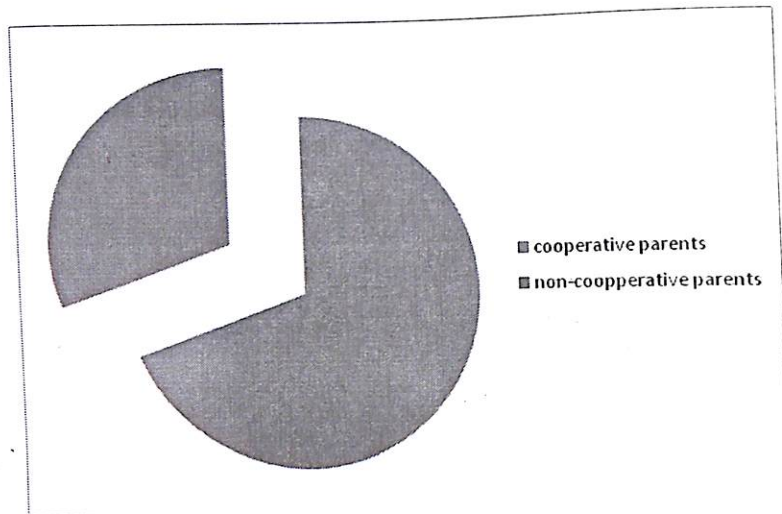


Fig No (vii): pie showing no. of students whose parents cooperate them while studying

The last question asked to them was 'In what way you have tried yourself for the betterment of the subject?' Everybody had different answers for this. Some told that they solve the question present in the book for many a times. Further they solve last 5 years question paper too. Some pupils take tuition for subject. They also make and study separate note for the subject and study. They also make gathering among some of the friends and study in group.

### 3.0 FINDINGS OF THE STUDY

From the analysis of the questionnaire there have been both positive and negative findings which are:

1. There are equal numbers of students liking and disliking the subject.
2. While teaching the subject teacher uses some teaching aids like maps and chart only.
3. The textbook of the subject is proper as it is told 'very good' by the subject teacher.

4. The school conduct visit for the students of class X to historical places only.
5. There is more pressure of homework's from the other subjects which make students concentrate more on other subjects.
6. The students lack interest in some parts of the social science subject.
7. Most students are interested in Geography part.
8. Maximum number of students finds the subject of medium level.
9. Some students don't received cooperation from the parents.
10. The main reason for lack interest in the subject by students is due to their less attentiveness in class.

#### **4. SUGGESTIONS AND RECOMMENDATIONS**

1. Knowledge is the thing the man seeks. So make people thirsty for knowledge. Teaching and learning should be more interesting attractive and spontaneous.
2. There must be proper use of charts, models etc in the classroom to make the teaching more attractive and interesting. Interact with weak students frequently by using Question-Answer method.
3. The base of the students is sometimes very poor, so there should be teaching of basic knowledge.
4. Organize a special class with the students of class X once in a week.
5. The teacher should be more sensitive and sympathetic. They have to develop themselves as the friends, philosophers and guide.
6. The teacher should try to spill the syllabus into several parts and then emphasized each section. Continue it unless each of selected students achieves mastery learning over the subject matter.
7. Government should take proper step to develop the situation of the financial backward classes.
8. The guardians must have to be conscious about their children as it is their duty to make pupils mentally and physically fit.
9. Discuss with their parents and make them understood about their importance of the homework. They spend time with their children.
10. Students sometimes become confused with their lesson, the home tutor taught the lesson differently from the school teacher. So a meeting should be organized and convince them to follow a unanimous teaching techniques.
11. Start to implement joyful teaching strategy.

## 5. Conclusion

Action Research is a kind of classroom research take up by the class teacher or subject teachers with a view to find out what action can be taken to solve a certain problem in the shortest possible time. From this study in class X students of Govt. Sec. School, Kharsang, it can be seen that there are both positive and negative side. Somewhere the students don't find the subject as well as the subject teacher interesting whereas the teacher uses some teaching aids while teaching and also the school conduct tour to historical places. Outside the study part, on the area where the school is situated is a small town area and the school doesn't have proper communication facility too which may result the lack of interest in studying. But the aforesaid suggestions can solve some of the problems found regarding the topic.

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# A STUDY CONDUCTED ON THE STUDENTS OF CLASS X, WITH LOW PERFORMANCE IN HISTORY SECTION OF SOCIAL SCIENCE SUBJECT

*Safin Alam*  
*Action Research Investigator*

## 1.0 INTRODUCTION

As a subject, History has a very important place in secondary level of curriculum. In that way, it is very important to study the subject History from a researcher's point of view with its various notions concerning it. Through which a systematic procedure will be conducted for the development and betterment of its pupils who face various critical situations during study History. Pupils of secondary level who face various critical situations and could not be able to find out an appropriate solution of it. So, it is the time to apply Action Research to solve the problems from its grass root level.

History is the subject of human experiences and a means of time where the evidence of written records is available. There must be an origin behind every event in the world, which can also be called as history. History is the discovery of, collection, organization and presentation of information about past events. The English word "History" is derived from their Greek word "Historia", which means enquiry or research. History is a field of research which uses a narrative to examine and analyse the sequence of events and it sometimes attempts to investigate objectively the patterns of causes and effect that determine events.

History is a chronicle of events, but it can be understood by common man. It is a significant record of events of the past and a meaningful story of mankind depicting the details of what happened to man and why it happened. History is not simple information regarding the affairs of kings who have passed away but it is a science which expands the intellect and furnishes the wise with examples.

To study as a subject, History has certain nature of its own which certifies that without knowledge of History a person could not be able to build clear perception of anything which is concerned with society. As an operator of basic knowledge of society, the subject History is not static, overviews of History are continuously changing as new discoveries are made

that cast doubt on previous knowledge. It is subjective in nature and also a search for truth. In other words, history is scientific in nature and also a faithful record of our past. According to modern concept, history is not confined to one period or country or nation. It deals with all aspects of life like political, social, economic, religious, literacy, aesthetic and physical. In the earlier periods History was considered as a mere collection of legendary stories and folk tales, etc. but at the present stage the scope of History becomes wider. It deals with the life of real human beings, their success, defeats and failures. In this way the scope of History has become as wide as the world and as long as the experience of man on this earth.

### **1.1 Background of the study**

As a subject in secondary level, History can make a strong foundation for pupils toward their mature understanding of present situation of society and help them to easily cope up with the society because History is the means to understand the past and present situation. The different interpretations of the past, allows them to see the present differently and therefore imagine and work towards different futures. Through a study of the subject History pupils will be able to investigate and interpret. They can judge how society developed as it has, and can determine what influences have affected the past, present and will shape the future. History prepares pupils to live more humanly in the present and to meet the challenges of the future because it provides them with understanding of human condition and struggle of our ancestors to give us a wander full future.

History is the subject of knowledge for secondary level pupils towards their bright future towards their bright future to make them a perfect human being which is found from the above explanation of the subject History. Although it is found that there are some difficulties faced by pupils who studies History, which causes low performance in their effort of making good result. So it is time to pinpoint the notions which create problem particularly in studying History. Low performance may be a summarization of various causes like students often exhibit apathy and boredom with History. Again it is considered as worthless and useless because of the emphasis on memorizing dry and dead facts. Research has found that in teaching History a critical component is missing in the traditional lecture presentation or transmission approach. There is no enduring understanding, no analytical or critical reflection, evaluation or long term synthesis.

Performance means to focus on specific expectation from a program related to those who concern with it. It facilitates the package of curriculum, delivery strategies, and assessment procedure. There is an importance towards first step that must come before the development of performance and that is deciding on student outcomes. They are usually communicated to students in program description, and stated in terms that inform the students about general purpose of the program and expectation of the faculty. The primary

difference between student outcomes and performance indicators is that students learning and are broadly stated of the outcome, not measurable, while performance indicators are concrete measurable performance students must meet as indicators of achievements. Performance indicators are developed from program outcome.

The theoretical meaning of performance means what concrete actions the students should be able to take as a result of participation in the program. Once program outcomes have been identified, the knowledge and skills necessary for the mastery of the outcomes should be listed. This will allow the desired behavior of the students to be described, and will eliminate ambiguity concerning demonstration of expected competencies. Performance indicators are made up of two main elements, action verb and content (referent). The expected behavior must be specified by name, using an observable action such as demonstrate, interpret, discriminate, or define.

### **1.2 Significant of the study**

In overall development of performance of a pupil each subject has its own value, the package of different subjects define complete desired development of a child. Every child is unique so they need appropriate treatment for all round development. In that way each subject need appropriate measure and direction for its improvement. So performance measure in all levels of school by measuring their complete performance of each subjects. In secondary level the importance of subject History is already mentioned in the previous explanation. Again it is mentioned by various educationists that History is a subject which study dead facts and which need only memorization without any understanding. There is a general consensus that the performance of existing secondary school system has been slipping. So it is obvious that pupils get bored in studying the subject history. So there should be a detail study needed for the subject History. In that way History need systematic and scientific observation about different notions which concern with history.

The above mentioned research conducted on History section of Social Science subject of class X, followed by the syllabus given by SEBA. This is shown below:

#### **History section of Social Science syllabus**

Sl. No	Name of the topic	Page number
9.01	Non-violence policy	118-119
9.02	Gram Swaraj	119-120
9.03	Non co-operation movement	120-122
9.04	Civil disobedience movement	122-125
9.05	The Quit India movement	125-129
9.06	Indian national army	129-131
9.07	Causes of partition plan of Bengal	131-135

The research study conducted on the above mentioned syllabus. But during research process only Chapter 9 was included as a way of study, which include 7 sub units as shown below:

### Chapter 9: Freedom Struggle Under Gandhi's leadership

Sl. No.	Name of the chapters	Page number
Chapter 8	India 1905-1947	111-117
Chapter 9	Freedom struggle under Gandhi's leadership	118-137
Chapter 10	Fall and decline of Ahom kingdom	138-172
Chapter 11	Assam's role in the freedom Movement	173-193
Chapter 12	Cultural heritage of India and The North East	194-202

This action research conducted while teaching History during practice teaching continues in a school. The student enrollment of class X was 40 with a Social Science teacher who take the History section also which is included in the Social Science syllabus. During practice teaching of the teacher trainee it was found that pupils of class X gets difficulty in studying History section of Social science subject. They are at risk, because they could not cope with the subject and performance is very low which may be a cause of failure in exam and can push them to dropping out from schooling. The action research is an attempt to find out low performers, examine their low performance, their causes and provide them appropriate remedies.

#### 1.3 Objectives :

Following are the various objectives of present study:

1. To identify the low performer students in History section of Social science subject.
2. To examine the low performers in History for a particular unit.
3. To find out the causes of low performance.
4. To suggest appropriate means for improving their performance.

#### 1.4. Action hypothesis

Following actions were undertaken in this action research project:



**Table 1: Action program**

Sl. No.	Activities undertaken	Time period
1	Selection of topic	Dec 2013
2	Preparation of objectives	Jan 2014
3	Construction of tools A. Constructing experiment a) Written test b) Oral test c) Preparation of answers by the students for certain questions d) Given by the teacher for a unit B. Construction of questionnaire for teacher C. Construction of questionnaire for students.	Mar-apr       May 2014 (1 <sup>st</sup> week) May 2014(2 <sup>nd</sup> week)

**1.5 Method procedure:**

The method adopted for the present study is diagnostic survey method.

**1.6 Description of population and sample:****1.6.1 Population :**

The population comprised of 24 members of teacher and 40 number of students in class X

**1.6.2 Sample:**

The sample of teacher consisted of only one teacher teaching Social Science in class X. out of 40 numbers of students the sample of students happened to be 7 only.

**1.7 Tools:**

following are the tools which are used for data collection:

**Table 2: Application of tools for data collection**

Sl. No	Tools	Marks /numbers
1	Questionnaire for teacher	20 questions with profile
2	Questionnaire for students	18 questions with profile
3	Construction of question paper on a lesson In History section a) Written test b) Oral test c) Selected questions on a unit as homework	  10 marks 10 marks 15 questions

### **1.8 Procedure of data collection :**

In case of diagnostic test following steps being carried out in the whole class:

The investigator taught a lesson (Non co-operation movement) for History section and having completed the lesson, at the end of the period, 10 questions were asked and responses being obtained from students. This was followed by allotment of homework consisting short type questions.

After a gap of one day, a test was constructed by the investigator consisting of 10 short type questions of 10 marks (each question carries 1 mark) for the whole class. After obtaining the marks in the test, the test papers of all the 40 students were checked. The mark obtained from the students assisted in identifying the number of low performers. It was decided that who obtained below 5 marks in this test shall be considered as low performer.

The next lesson (Civil Disobedience Movement) was taught after a gap of one day and at the end of the lesson homework was given and it was advised to the whole class to read and practice the lesson at home. On the following day an oral test was conducted for 10 marks for the whole class. Through this test the memorizing power of the students was being tested. (It was found that in this oral test the identified low performers obtained below 5 marks).

In the next step, the investigator started teaching for a forth night and the whole unit on " Freedom Struggle Under Gandhi's leadership " (included 7 number of lessons) was completed within two weeks. Then 15 selected questions prepared (from each of the lesson of the unit) were given to the students. All the students were asked to prepare answers and submit within 3 days' time. (After checking the homework it was found that the low performers were able to write below half of the answers only, i.e., 6-7 answers could be obtained).

### **1.8 Feedback**

**1.8.1. Pre-test:** Draft questionnaires for teachers comprised of 20 items and that for students 18 items. These were subjected to scrutiny by an expert.

**1.8.2. Remedial measures:** After checking by the expert it was found that all the items were accepted. In case of students two items included in identification data were rejected by the expert.

**1.8.3 Post-test:** the final draft prepared was utilize dfor data collection purpose.

### **Analysis**

### **2.0 General information about the school :**

The school under consideration named as Ambikagiri Girls H.S School is situated at Gotanagar, Maligaon. This is a vernacular medium Girls H.S. school housed in both Assam type and R.C.C type building of E shape. There are 12 number of classroom with

a playground in front of the school. There are big trees inside the campus which ensure ecological environment. It is provincialized school following SEBA syllabus.

There are 5 compulsory subjects at the secondary level out of which Social Science is one of them. There are various parts in Social Science and History is one of the parts. Though History is interesting subject of study, yet, there are certain characteristics involved which create some difficulties like remembering the dates, events, names of persons of past periods .

The teacher of Social Science is female with 30 years of experience and she is a post graduate degree holder and is professionally trained (possessing B.Ed degree).

### 2.0.1. Identification of students performing low marks in History section:

During practice teaching the investigator carried out teaching activity and it was observed that students do face certain problems in remembering the essential things in History section, though they read in their own mother tongue. It came in the mind of the investigator to look into the facts. As such the actual teacher, teaching History in that school was enquired that whether the teacher faces any problem. The teacher did agree that there are certain students who face difficulty particularly in History section.

On receiving this information the investigator got more interested to look into the reality through teaching process. As such after teaching a lesson, a test is conducted and the responses of the test revealed that there are 7 out of 40 students performed very unsatisfactorily (scoring below 5 out of 10) as it is evident from the table. Thus these 7 students identified as poor performers. This explanation can be seen through following table 3 and graphical representation 1. The graph 1 where horizontal axis shows name of the students and vertical axis shows marks obtained by them in written test.

**Table 3 with graph 1: Identification of the low performers through the following written test:**

Date of Exam : 25/03/14

Sl. No	Name	Marks
1	Puja Saha	6
2	Meeta Deka	7
3	Radha Kumari	8
4	Neenu Saikia	5
5	Himashri Deka	6
6	Tinku Das	3
7	Pallabi Das	9
8	Depanita Das	10
9	Luna Kalita	2

10	Pampi Basumatari	4
11	Sanjana Devi	8
12	Kabita Barman	2
13	Geeta Das	8
14	Bhagyoshri Das	9
15	Minakshi Kalita	10
16	Bina Pal	9
17	Anjali Das	8
18	Kajal Sarkar	7
19	Monju Das	8

20	Sneha Pal	9
21	Bhumita Devi	10
22	Depti Rani	6
23	Diya Kalita	7
24	Bhanu Kalita	8
25	Bhorali Medhi	9
26	Rosmine Akhtara	10
27	Antara Das	6
28	Sehnaz Begum	7
29	Jahnavi Sarma	9
30	Afina begum	8

31	Neha sarma	6
32	Amina Begum	7
33	Rajina Begum	8
34	Taifia Amin	6
35	Nahin Alam	9
36	Naznin Sultana	10
37	Sangita Medhi	7
38	Nikita Devi	1
39	Lipika Sarkar	2
40	Saraswati Tamang	3

### 2.0.2 Examining the performance of students for a particular unit:

The table shows the performance of low performer students at various types of tests assigned to the students:

#### RESULT SHEET OF CLASS TESTS

Date of exams	25/03/14	1/4/2014	8/4/2014	
Name	Marks of written Test /10	Marks of oral Test/10	Home work/15	Total
Tinku Das	3	0	5	8
Luna Kalita	2	2	6	10
Pampi Basumatari	4	1	6	11
Kabita Barman	2	2	4	8
Nikita Devi	1	0	5	6
Lipika Sarkar	2	1	6	9
Saraswati Tamang	3	0	4	7

From table 4, it is found that the performance of these 7 students in written test found to be 4 as the highest mark and the lowest being 1 (out of 10 marks). That is 40% is the highest and 10% is the lowest mark and 3 out of 7 students score only 20%. In oral test it is clear that highest score is about 20% and lowest score is 10%. Again 3 out of 7 students get 0 out of 10. Another test was conducted by providing homework to the students with 15 selected questions. After observing this test, it was found that out of 15 questions 6-7 answers could be written by them, where maximum 6 and minimum 4 answers was completed by them. This test has a motive to observe the writing capability of students.

During the scrutiny of test papers it is found that the writing of the answers is not systematic as expected and the text of the answer is not informative.

Graph 2 shows the overall conducted tests on each of the 7 students. In table 2, horizontal side shows name of pupils of low performers and vertical side shows marks obtained by them in different exams as written, oral, homework tests. By adding their whole marks of previous examinations shows their performance in detail.

According to the investigator the micro experiment conducted on the students reveals the following:

1. These seven students are found to be slow learners compared to the other students. The reasons may be,

- a) Unable to follow the text book properly
- b) The contents included in the textbook are difficult to link up in a sequence.
- c) Teachers' explanation is not comprehensive

2. The verbal performance of the students revealed that except for 3 out of 7 students other could not respond to a single question. The students who respond out of 10 questions the maximum marks obtained happened to be 3 and minimum marks 2, thus it suggest that,

- a) The students did not pay attention in the class.
- b) They did not read the lesson at home.
- c) They were unable to relate the concepts which resulted in confusion.

3. From the homework offered to students revealed that only 6-7 answers were completed by them where unsatisfactory answer was found based upon insincerity of writing style. Again the texts of the answer were not informative also. From the homework test offered to students revealed that,

- a) The homework assigned to the students was not taken seriously, because out of 15 questions, not even half of the questions were attempted.
- b) Either the students do not study at home regularly or they are not interested in writing.
- c) Pupils do not study regularly at home
- d) Lack of involvement of parents for communication with teacher.

### **2.0.3 Factors responsible for low performance among a section of students:**

The response of the teacher shows that there exists low performer in history section and this is known to the subject teacher during the process of teaching. According to the teacher these low performers are found to be weak in mathematics also. This is to the fact these sample students do lack in memorization ability and also sincerity. According to the teacher they do concentrate in the class and they do understand whatever taught in the

class. According to the teacher they do concentrate in the class and they do understand whatever taught in the class. According to the teacher it has come to the light that students have understood the lesson from the response received to the questions asked and homework carried out.

As per the response, the teacher also stated these students do face certain problems while studying history section. Another fact noted is that these students are unable to cope up historical concepts properly. The teaching principle usually adopted by the teacher happens to be known to unknown; also the teacher tries to relate different events during teaching history. The teacher takes the effort in making the students memorize the different events of history in chronological order. After teaching every lesson the text is revised. This is followed by the class test. According to the teacher, there is hardly a student who discuss about the problem faced. Certain extra tips are offered by the teacher for solving the problems faced by the students. According to the response of the teacher, it is held that the problems faced by the students in studies, the parents are not aware of it.

All the students were not found to be interested in studying History section as because almost all of them found it difficult. Moreover the cause of dislike is with respect to problem of memorization.

According to 50% of the students, their favourite subject is Assamese. According to the students, learning History is complex. As per the response of the students the teaching of the teacher is interesting. All the students responded that they are unable to memorize the chronological periods found in History. As per the responses of the students not a single of them can relate different events in the History section. As the responses obtained from the students, 50% of them stated that the process of teaching is from known to unknown. Around 86% of the students stated that they are unable to understand the concepts of History easily. All the students found that they unable to differentiate the cause between historical situations with that of their consequences. Near about 42% of the students stated that they do cooperate with the teacher for clarifying of the concepts. But the majority of them stated in the opposite way. As responded by the students 63% of the students found to score poor marks in the previous examination in this History section. As responded by the students the parents do cooperate in the study matter. In addition all the students responded that the parents are trying to sort out the problems faced by their wards in history section. Around 62% of the students stated that only extra tutorial facilities are availed by the students as arranged by the parents.

#### **2.0.4 Adaptation of suitable measures for improvement of their performance :**

According to the investigator the micro experiment conducted on the students reveal the following:

1. These seven students are found to be slow learners as compared to the other students.

#### **Measures to be adopted-**

- a. To enable them to follow the textbook properly, teacher should explain each points of an event clearly.
  - b. The textbook of History should be formed in a sequential order that each point is linked with another.
  - c. The teacher should explain in a comprehensive way while teaching an event of History for overall understanding of the event.
2. The verbal performance of the students revealed that accept for 3 out of 7 students others could not respond to a single question. The students who responded out of 10 questions the maximum mark obtained happened to be 3 and the minimum mark 2. Thus it suggest that,
    - a) To increase the attention of the pupil, the teacher should adopt various audio visual aids.
    - b) To increase regular study parents should concern about their study level at home.
    - c) To increase understanding teacher should try to relate various events where one event may be the cause of another.
  3. From the homework offered to students it was revealed that only 6-7 answers were completed by them where unsatisfactory answers was found based on insincerity of writing style. Again the text of the answers were not informative also. From the homework test offered to students it was revealed that,
    - a) Parents should concern about performance of pupils in class and home.
    - b) Each subject teacher should check out homework on a daily basis.
    - c) In order to improve they need to work hard.
    - d) They need to study regularly.
    - e) Teachers-parents association should be developed.
    - f) According to the response of the teacher the step that should be taken to minimize the problems faced by the students is revision.

#### **2.1. Findings of the study:**

- 1) The history section in Social Science subject it is found that 7 out of 40 students are low performers.
- 2) These students are found to be lacking in memorization ability and sincerity. In general they are able to understand, concentrate and do the homework.
- 3) They are unable to cope with historical problems properly
- 4) According to the teacher, the parents are not aware of the problems faced by the students.

- 5) All the students are not interested in studying the history section because they find it difficult.
- 6) Test conducted by the investigator in the form of oral, written and homework, it is found that the marks scored by these 7 students are lower than rest of the students. Further it is found that their manner of writing of answer is neither very systematic nor the text of the answers are informative.
- 7) Even the teacher of the school did agree that the performance of these of 7 students is lower in History section as compared to others.
- 8) According to the teacher these students do concentrate and understand whatever is taught in the class by the teacher and this is evident from the response of the students during class work and homework.
- 9) As per the response of the teacher the students find difficulty in coping up with historical concepts.
- 10) Every effort given by the teacher to relate different events, so that the students can easily memorize the essential things, in addition every lesson is revised further followed by the class test. Even some extra tips are offered for solving any kind of doubt that arises in the mind of the student.
- 11) According to the teacher, the parents are not aware of the problems faced by the student.
- 12) According to the response obtained from all the 7 students it is found that they are not interested in studying the history section because they find it difficult to memorize.
- 13) The students are found to be satisfied with the way the teacher teaches.
- 14) Not a single student can relate the different events in History.
- 15) Majority of the students are not found to cooperate with the teacher during teaching-learning process.
- 16) Majority of the students are found to score poor marks in the previous exam in history section.
- 17) The parents of the students assist in sorting out the problem faced by their wards as far as possible.
- 18) According to the the teacher the steps to be adopted for solving out the problem of student is mainly through revision.
- 19) According to the present study the means for reducing the problem faced by these students are to follow the textbook properly, need to pay more attention in the class, regular study is essential and understanding of concepts has to be carried out.



## 2.2 Suggestions

According to the present SEBA syllabus on Social Science subject, a portion on History is included consisting of 5 units on Indian as well as Assam History. Each unit has 4-5 sub units. In our present study it is found that the subject History is suitable for those students who can memorize dates and facts. There are certain students who are unable to memorize the dates and facts, faces problem in memorizing the essential things in History and as such they perform in an unsatisfactory way. It happens particularly in the History section of Social Science. Even the school teacher engaged in the teaching of the subject did agree that students are less interested in History section in general and in particular certain students perform very low in this section. As per the response of the teacher the low performers find difficulty in coping with historical concepts and they face problem in relating different events. The study revealed that all the identified low performer students are very less interested in studying History. This is further substantiated by the list conducted by the investigator in different forms be it writing, oral or doing homework. The low performer students appeared to be least bothered about their performance and they have almost negligible form of competitive aptitude. According to the teacher, the suggestion put forward by the teacher is only revision.

History portion is usually memorized by the students without going into the subject matter deeply. According to Milton, History becomes memorization of dates and key facts.

The main of education is to achieve long term understanding and gain meaning of full understanding of History. Simply memorizing the facts wii not result into understanding. In addition the problem is with the teaching method. Approach of teaching in the class which makes the subject boring. In teaching History, something is missing as a result of which the students are less interested in learning the contents. The main problem behind this is maybe in the textbook which have lack of chronological order and continuity. The textbook included various events but there is systematic explanation of the events. Again History has link with one aspect to the another. So pupil may face difficulty in only memorizing the dead facts without the linkage. Pupil could not memorize without understanding of transformation of events from one to another. At present there is need for different methods and strategies and removing the traditional methods of teaching and the textbook based class room. Teacher should explain internal notion of evevts which lacks in textbooks. This can happen only through adaptation of various methods of History teaching such as story telling method, lecture method, discussion method, project method etc. activities and assignments boost up the students towards History. Again there is a nedd for extra classroom for History, which shoul be so planned and arranged that it should provide an inviting and stimulating atmosphere. It should be as much as unlike the

bare walled and stereotype of classroom as possible. The arrangement of furniture and display should be informal to give an impression that there is something interesting in that room. It should look like a place where one is expected to do things rather than a place where one is asked to recite formal lessons. With the classroom there is a need of teaching aids which has full of historical equipments such as charts for chronological study of dynasties in India as well as Assam, maps of geographical coverage of each dynasties, timeline of full of fall and decline of kingdoms with pictures etc. in history classroom there should be an atmosphere of museum as well as collection of old scriptures, coins etc. again the size of the classroom should be larger than the general classrooms as 600 square feet which leads to help in oral and visual presentation and make pupils remain active. While designing the History curriculum, the decision on what to teach at different stages will have to good for a particular, if it is convenient, well planned, appropriate and presents materials in a sensible orderly fashion. It requires wise planning of the subject matter, its fruitful growth and also the growth of the pupils. It is to be organized in such a way that within the prescribed period of time, the aims and objectives of teaching History are achieved. Enthusiasm and engagement in the subject results in creative activities and there is an increased participation and interaction.

### **2.3 Recommendation**

- 1) The text for the History section needs somewhat detail information so that the events can be related with one another.
- 2) While teaching due attention needs to be paid by all the students in the class.
- 3) Regular study is essential and avoidance technique should be reduced.
- 4) The parents has great role to understand the problems faced by their wards in studies and necessary action has to be initiated.
- 5) Modern teaching methods have to be adopted by the teacher removing the age old traditional method.
- 6) In order to attain fruitful result the effort of the teacher in making the students learn is very much essential otherwise the existing system will continue to prevail.

### **2.4 Conclusion**

In a school, the aim of every teacher is generally to show the result and how best the students perform with flying colours is the main outlook. The teacher has to deal with different types of individual with different activities. Individual attention no doubt is offered at times, but there are certain students who consistently perform low in academic matters. It is not possible for the teacher to go with the pace of the slow learners as the teacher has the responsibility of the whole. The only way is to change the teaching methods or approaches using the modern and teaching aids for generating and sustaining the enthusiasm and interests of the students. Along with this effort the present study has a very interesting

note that mere depending on the school the students will not attain the desired marks. The efforts of the parents is equally important and necessary facilities, suggestions or guidance are of utmost importance. The students must have the learning environment not only in the school but also at home, only then the desired satisfaction can be derived.

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# A STUDY ON LACK OF INTEREST IN SOCIAL SCIENCE WITH SPECIAL REFERENCE TO HISTORY PART AMONG THE STUDENTS OF CLASS-X OF A SECONDARY SCHOOL

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## 1.1 Conceptual or Theoretical Background of the study

### 1.1.1 Meaning of Social Science

Social Science is an academic discipline concerned with society and the relationship among individuals within a society. Man is a social animal. Man can't live in a conservative area. A social being means be with the society. In a society there are various kinds of people. Only they live together and that's why man is a social animal. Social Science includes anthropology, economics.

In a wider sense it may often include same fields in the humanities such as history, law and linguistics. The term may, however may be used in the specific content of referring to the original science of society.

Social Science came fourth from the moral philosophy of the time and was influenced by the age of revolutions such as the Industrial Revolution and the French Revolution. The social science developed from the sciences or the systematic knowledge bases or perspective practices, relating to the social improvement of a group of interacting activities.

The Social Science disciplines are branches of knowledge which are taught and researched at the college and university level. Social Science disciplines are defined and recognized by the academic journals in which research is published, and the learned social science societies and faculties to which their practitioners belong.

Social Science includes the millions of years prior to world history and also foreseeable future. Social Science draws material from all the Social sciences relating to the study of human relations and human behaviour.

In doing so, undue emphasis is not laid on any subject or part at the cast of another. It has to do with what is to be included in the programme in terms of the rank of the subject matter and the experiences children are to have. The scope of well defined programme of Social Science has to be broad enough to acquaint the children with a broad rank of human activities that are meaningful to them.

### 1.1.2 Meaning of History

One of the important parts of Social Science is History. History is often said to be the 'Mother' or 'Queen' of the Social sciences. It is the basis of all subjects of study which fall under the category of Humanities and Social Sciences. It is also the basis of the study of Philosophy, Politics, Economics and even art and religion. That is why it is considered as a indispensable subject in the complete education of man.

In general when the word 'History' is used then the meaning of the word is History of Man. The materials to be studied under it and such traces which the man has left by his existence as his thoughts, as his feelings and as his actions.

History in its broader sense is an every thing or event that ever happened. It is the part itself, whatever that may be. But the part can't be observed directly. What is known about is must be learned from such traces of former conditions and events as time and chance and the foresight of man may have preserved. Therefore the traces of the past facts of any kind are the bases for the formation of History.

In reality the genesis of History begins with the advent of man on Earth. But Herodotus did a systematic study of man's actions and thoughts in 500 B.C and because of this he is the father of History. He analysed their events and subject matter that happened in the world and on the basis of these analyses he described the events. He called all these describe events as History. He was the first man who wrote about the events in the from of story and because of this reason he is acknowledged as the Father of Story Telling History.

As Herodotus gave birth to 'Story Telling History', in the same manner in 411 B.C, Thucydides gave birth to 'Didactic History'. He made the facts as his path finder and after compiling these facts he established the relations with the political conditions of that time. Meanwhile, Ranke created scientific History for the first time in the 19th century. He put emphasis on what had actually occurred. He described the events impartially.

Now in the modern times historians believe that today history is seen as a study which describes facts; and the facts can only be discovered through the application of scientific method. Now historians collect facts and then verify them to create history. The historians examine the validity of the facts and may classify the facts according to their importance. The purity of the classified facts is also examined by the historians.

The scholars have various opinions regarding the nature of History. Some put emphasis on it as a science; where as some other scholars call it pure arts. The scholars, who call history a science, say that history is a detailed description and scientific analysis of events explaining and answering the questions of whom, why and where. Where as men of literature and artist have these feelings that history was a part of literature and did not have a separate identity and therefore, according to them it's a pure science. But we

can say that History is both science and arts.

History is an important section of the curriculum of Social Science of Class-X. The syllabus of History of Class-X consists of Indian History and Assam History. The students will be benefited from the history portion. But it is seen that the students do not give much interest towards the history portion as they give it to the other portion. They find History boring and do not give any kind of interest on that. Most of the students study History before their examination to pass the subject only. They do not consider History as a subject to know. The main problem is their lack of interest towards History.

### 1.2 SIGNIFICANCE OR RATIONAL OF THE STUDY

There may have some problem responsible for the lack of interest in History portion of the Social Sciences among the students. They may be lack of adequate teaching, lack of proper guidance at home, inefficient use of teaching aids, finding the subject matter boring, lack of interest in the classroom etc.

History is an important subject to learn so one may learn about the past human behaviour that is relevant to the intellectual growth and development of an individual. By learning about the causes and effects of the events in History, people can learn better ways to deal with conflict among nations and individuals. Studying the History of environmental changes can enhance a healthier lifestyle for mankind, as well as prevent the extinction of plants and animals, which could disturb our ecosystem.

One of the important reasons to study History is that it teaches us to 'think'. History enables us to complete the experiences that came before us; it is more than time and place. History allows us to 'think' about the greatest question humanity has ever asked....WHY. Studying history allows humanity to lack at it's ever reflection.

By studying History we can learn about our previous mistakes. So if we can figure out our previous mistakes by studying history, we don't repeat the mistake again and are able to avoid them by choosing more positive causes of action. This says it all, "Those who can not learn from history are doomed to repeat it". It helps us to become more efficient in decision making. We learn through history, we start to inquire and be interested in things that may greatly affect our lives in the present and even in the future.

Through history we are able to come up with solutions to our problems without getting in the stage of trial and error. It provides us ready and instant solutions to our problem without the danger of making more mistakes. It gives us a guide that would lead us to progress and development. It also inspires us to try new things and to beat the achievements of great persons.

History is a very important subject in every student's an individual's life. But now it has been observed that students of secondary level have shown less interest towards social science. Due to various reasons the students show less interest in such an important subject.

The factors that may be responsible for lack of interest of the students towards social science are as follows-

- ✍ Fear and phobia towards the subject
- ✍ Lack of proper guidance at school
- ✍ Lack of communication between the teacher and the students
- ✍ Poor concept formation
- ✍ Less attention towards the teaching
- ✍ Less attractive and vast syllabus
- ✍ Less use of teaching aids

These problems occur due to some specific reasons like the teaching approaches of the teachers for which many students are not able to form clear concept about the subject, the teaching aids use by the teachers, vast and less attractive syllabus etc. So these factors create serious problem for the students in learning social science. So, it is necessary to remove these difficulties from the students to give them proper knowledge about social science.

Therefore, the investigator has chosen the topic, "Lack of interest in social science with special reference to history part for Class-X". To find out the actual causes of the respective topic and give remedial to enhance the interest of the students towards social science specially the history part.

### 1.3 Objectives of the study

- ✍ To arouse interest among the students towards the subject history
- ✍ To find out the reasons of lack of interest towards history
- ✍ To give proper remedial measures to enhance interests of the students towards history

### 1.4 Action Hypothesis

Action to be taken	Duration
1 Selection of the topic	December 2013
1 Preparation of the Questionnaire a) Teacher b) Student	February 2014
3 Validation of Questionnaire	March 2014
4 Preparation of Final Draft	March 2014
5 Data Collection	March-April 2014
6 Data Analysis	May 2014
7 Report Writing	June- July 2014

## **1.5 METHOD / PROCEDURE**

The present study is based on descriptive survey method

## **1.6 DESCRIPTION OF THE POPULATION**

The population for the present study comprised of one social science teacher and students of Class-X numbering 30.

## **1.7 TOOLS OF DATA COLLECTION**

The tools are comprised of-

- a) Questionnaire for the social science teacher of the school
- b) Questionnaire for Class-X students

## **1.8 PROCEDURE OF DATA COLLECTION**

For the purpose of present study certain information are required by the investigator. As such a secondary school being selected and necessary permission being sought from the Head of the Institution. With his due permission the investigator collected the required information.

## **FEEDBACK/OPERATIONAL**

### **2.1 Pre-test**

For conducting pre-test, the investigator has prepared a questionnaire for the teacher and the students of Class-X. The questionnaires framed are subjected to scrutiny by an expert for the validation of the questionnaire. The questionnaire for the teacher is comprised of 10 numbers of items and the questionnaire for the students of Class-X comprised of 10 numbers of items.

### **2.2 Remedial Measures**

Having done the scrutinizing by the expert, both the questionnaire i.e teacher and the student's questionnaire were validated by the expert

### **2.3 Post-Test**

At this stage the final draft being prepared in the following way-

- a) Questionnaire for the students of Class X consisting of 10 items.  
[Ref. Appendix II]
- b) Questionnaire for the social science teacher consisting of 10 items.  
[Ref. Appendix III]

## **ANALYSIS**

### **3.1 Background of the school**

The school under survey is a higher secondary school. It was established in 1948. The school is housed in both Assam type and RCC building of box shaped the middle of which has a vacant space. The school has 47 numbers of teachers and total strength of students being 1010 in the year 2014. The school has 12 numbers of non-teaching staff.



The school is bounded with brick wall with very spacious campus. The school has 35 numbers of classrooms. The school has Class from Nursery to Class-XII and the school timing is from 8:45am to 2:45pm. The school has an ecological environment with big trees surrounded by flowers gardens which offer fresh air and shade. The school is located in a residential area in a calm and quiet place. The school follows the routine strictly and gives equal importance to all the subjects.

### 3.2 ANALYSIS OF DATA WITH APPROPRIATE METHOD

Analysis of data means studying the organized material in order to discover inherent facts. The data collected by the investigator first remains raw. It needs to be systematized and organized before using for any worth whole purpose. The entire raw data should be tested on the basis of the purpose for which they are gathered and only useful and usable data should be tabulated. Analysis of data means studying the tabulated materials in order to determine inherent facts or meanings. It involved breaking down the existing complex factors in to simpler parts and putting the facts together in new arrangements for purposes of interpretation. It requires an alert and flexible mind.

Once the researcher data has been collected and the analysis has been made the researcher can proceed to the stage interpreting the results. Interpretation means adding a meaning to the data analyzed. It is important to note in all circumstances data analyzed do not interpret themselves and that it is the investigator who must pass judgement on their meaning from the stand point of the problem under investigation.

The process of interpretation is essentially one of stating what the results show, what are their meanings and significance, what is the answer to the original problem; interpretation is not a routine and mechanical process. It calls for a careful, logical and critical examination of the results obtained after analysis, keeping in view to limitations of the sample closed, the tools selected and used in the study. Interpretation always follows analysis. In the present study after systematically organizing the obtained data an analysis has been done with the help of percentage keeping in mind the problem under investigation on interpretation is also done after analyzing the data.

A) Analysis of the data's of pre-test

Q. No. 1: Do you like social science?

**TABLE-2 :**  
TABLE SHOWING STUDENTS RESPONSE IN RESPECT TO Q.No.1

Students response	No. of students	Percentage of students
Yes	6	20%
No	24	80%

Q.No. 2) Do you like the history part of your social science textbook?

**TABLE- 2.01:**

TABLE SHOWING STUDENTS RESPONSE IN RESPECT TO Q.No. 2

Students response	No of students	Percentage of students
Yes	3	10%
No	27	90%

Q.No. 3) Do you find history boring?

**TABLE-2.02 :**

TABLE SHOWING STUDENTS RESPONSE IN RESPECT TO Q. No. 3

Students response	No of students	Percentage of students
Yes	27	90%
No	3	10%

Q.No.4 Do you easily forget the particular dates and events of history

**TABLE-2.03 : STUDENTS RESPONSE IN RESPECT TO Q.No.4**

Students response	No of students	Percentage of students
Yes	28	93.33%
No	2	6.67%

Q.No. 5) Do you find it tough to understand history?

**TABLE-2.04 : STUDENTS RESPONSE IN RESPECT TO Q.No.5**

Students response	No of students	Percentage of students
Yes	21	70%
No	9	30%

Q.No.6) Do you think that learning of history helps you in enhancing knowledge?

**TABLE-2.05 : STUDENTS RESPONSE IN RESPECT TO Q.No. 6**

Students response	No of students	Percentage of students
Yes	14	46.67%
No	16	53.33%

Q.No.7) Is the syllabus of history too long according to you?

**TABLE-2.06 : STUDENTS RESPONSE IN RESPECT TO Q.NO.7**

Students response	No of students	Percentage of students
Yes	29	96.67%
No	1	3.33%

Q.No.8) Do your teacher use specific teaching aids while teaching history?

**TABLE-2.07 : STUDENTS RESPONSE IN RESPECT TO Q.NO.8**

Students response	No of students	Percentage of students
Yes	0	0%
No	30	100%

Q.No.9) Do you pay attention while the teacher teaches you history?

**TABLE-2.08 : STUDENTS RESPONSE IN RESPECT TO Q.NO.9**

Students response	No of students	Percentage of students
Yes	19	63.33%
No	11	36.37%

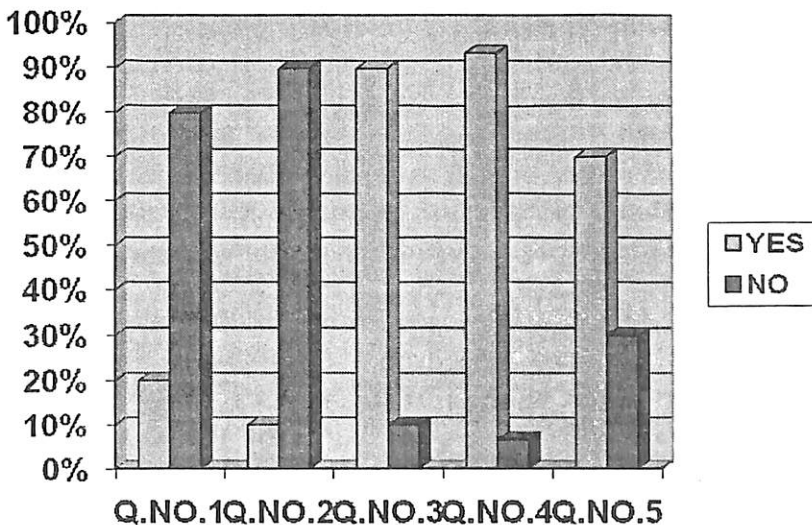
Q.No.10) Do you consider history to be a subject to learn?

**TABLE-2.09 : STUDENTS RESPONSE IN RESPECT TO Q.NO.10**

Students response	No of students	Percentage of students
Yes	5	16.67%
No	25	83.33%

**GRAPHICAL REPRESENTATION OF DATA OF PRE-TEST**

Q.No.1- Q.No.5



**Fig-1**

### Q.No.6-Q.No.10

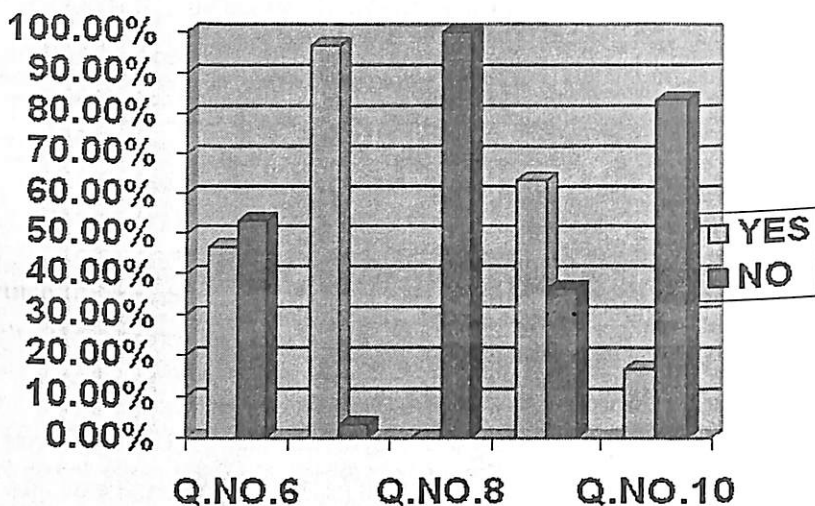


Fig-1.1

#### 3.2.1 REMEDIAL MEASURES:

Remedial means intended to correct or improve different skills in a specific subject. An attempt has been made by the investigator to develop the apathy of students towards history of Class-X through scheduled activities to provide some remedial. Remedial measure is a kind of which is designed to bring under prepared students to expect skill competency levels. Remedial measure can be designed for any students, with or without special needs. Basically, remedial means actions taken by the teacher to remove or correct all the difficulties of the students for giving proper learning. Especially in social science, there should be compulsory remedial classes for the weak students to develop their knowledge in social science and able to bring interest among the students towards social science.

The following table shows all the activities organized by the investigator as remedial measure to enhance the interest of the students of class X of the school.

**Table No-3 Showing day wise activities of remedial measures**

Sl. No	Days	Activities
1)	First Day	a) Preparing a table of particular dates and events of historical importance
2)	Second Day	b) Reading the topics in story mode
3)	Third Day	c) Use of teaching aids such as pictures related to the topics
4)	Fourth Day	d) Field trip
5)	Fifth Day	e) Showing film based on historical importance

The activities are described below-

First day: On the first day, the investigator has discussed on the importance of History. The students are told to make a table of the particular dates and events hang that table before their study table. That may help them to remember the particular dates.

Second day: On the second day, the students are told to read the topics in story mode. That will help them to increase interest in studying history.

Third day: On the third day, the investigator has shown some teaching aids regarding historical importance to motivate them. The teaching aid consists of various pictures having historical importance because of that students show eagerness to learn history.

Fourth day: On the fourth day, the investigator has organized a field trip to the nearby area to introduce the students with historical events to motivate the subject History.

Fifth day: On the fifth day, a film based on history was shown to them through 'Projector' and the subject matter of the film is related to their History chapter. So, the students watch the film very attentively.

**B) Analysis of the data's of the post-test:**

Q.No.1: Do you like social science?

**TABLE 4 : STUDENTS RESPONSE IN RESPECT TO Q.NO.1**

Students response	No of students	Percentage of students
Yes	22	73.33%
No	8	26.67%

Q.NO.2: Do you like the history part of your social science textbook?

**TABLE 4.0.1 : STUDENTS RESPONSE IN RESPECT TO Q.NO.2**

Students response	No of students	Percentage of students
Yes	21	70%
No	9	30%

Q.No.3: Do you find history boring?

**TABLE 4.0.2 : STUDENTS RESPONSE IN RESPECT TO Q.No.3**

Students response	No of students	Percentage of students
Yes	10	33.33%
No	20	66.67%

Q.No. 4: Do you easily forget the particular dates and events of history?

**TABLE 4.0.3 : STUDENTS RESPONSE IN RESPECT TO Q.No.4**

Students response	No of students	Percentage of students
Yes	13	43.33%
No	17	56.67%

Q.No.5: Do you find it tough to understand history?

**TABLE 4.0.4 : STUDENTS RESPONSE IN RESPECT TO Q.No.5**

Students response	No of students	Percentage of students
Yes	11	36.67%
No	19	63.33%

Q.No.6: Do you think that learning of history helps you in enhancing knowledge?

**TABLE 4.0.5 : STUDENTS RESPONSE IN RESPECT TO Q.No. 6**

Students response	No of students	Percentage of students
Yes	20	66.67%
No	10	33.33%

Q.No.7: Is the syllabus of history too long according to you?

**TABLE 4.0.6 : STUDENTS RESPONSE IN RESPECT TO Q.No. 7**

Students response	No of students	Percentage of students
Yes	29	96.67%
No	1	3.33%

Q.No.8: Do your teacher use specific teaching aids while teaching history?

**TABLE 4.0.7 : STUDENTS RESPONSE IN RESPECT TO Q.No.8**

Students response	No of students	Percentage of students
Yes	30	100%
No	0	0%

Q.No.9: Do you pay attention while the teacher teaches you history?

**TABLE 4.0.8 : STUDENTS RESPONSE IN RESPECT TO Q.No.9**

Students response	No of students	Percentage of students
Yes	24	80%
No	6	20%

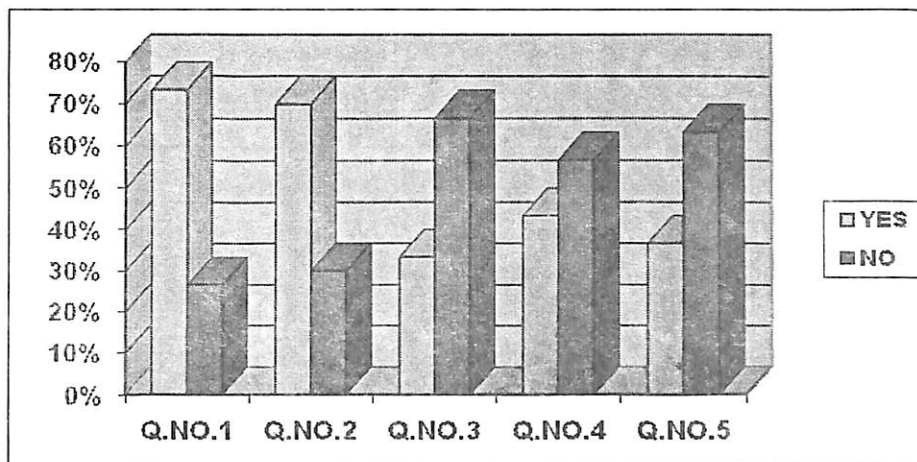
Q.No.10: Do you consider history to be a subject to learn?

**TABLE 4.0.9 : STUDENTS RESPONSE IN RESPECT TO Q.NO.10**

Students response	No of students	Percentage of students
Yes	21	70%
No	9	30%

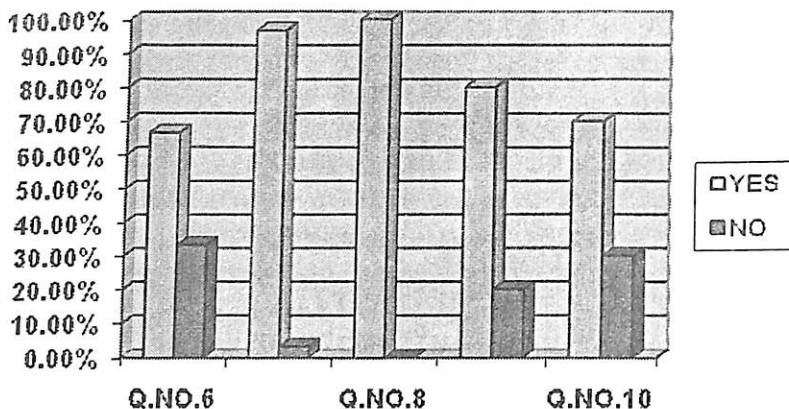
**Graphical representation of the data's of the post-test**

a) Q.No.1- Q.No.5



**Fig-3**

b) Sl.No.6- Sl.No.10



### 3.2.2 Comparison between the results of the pre-test and the post-test

After analyzing the data's of the pre-test and the post test the investigator has compared the results as follows :

Table : 5

Sl. No	Statements	Response After the pre-test (in percentage)	Response After the post-test (in percentage)
1	Students who like social science	20%	73.33%
2	Students who like history	10%	70%
3	Students who find history boring	90%	33.33%
4	Students who easily forget the particular dates and events of history	93.33%	43.33%
5	Students who find history tough to understand	70%	36.67%
6	Students who think learning of history enhance their overall knowledge	46.67%	66.67%
7	Students who think their history syllabus is too long	96.67%	96.67%
8	Teachers who use specific teaching aids while teaching	0%	100%
9	Students who pay attention in the history class	63.33%	80%
10	Students who consider history to be a subject to learn	16.67%	70%



Graphical representation of comparison between the results of the pre-test and the post-test :

a) Sl. No. 1 - Sl. No. 5

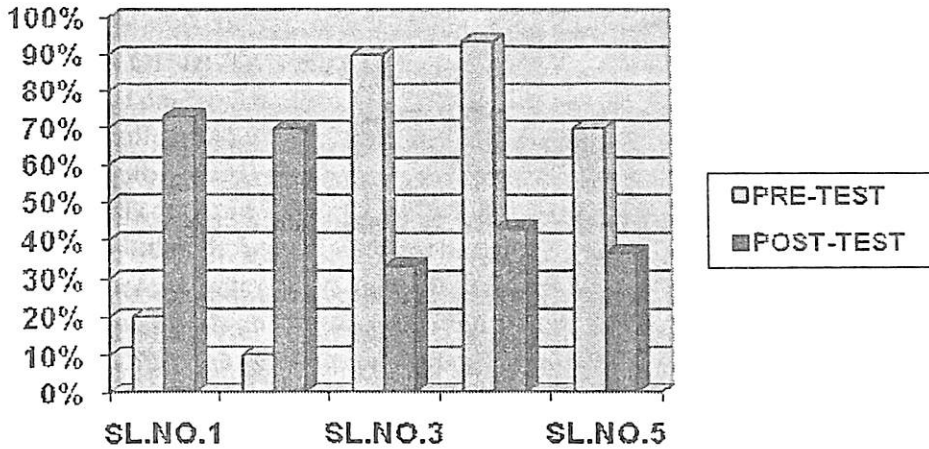


Fig. - 3

b) Sl. No. 6 - Sl. No. 10

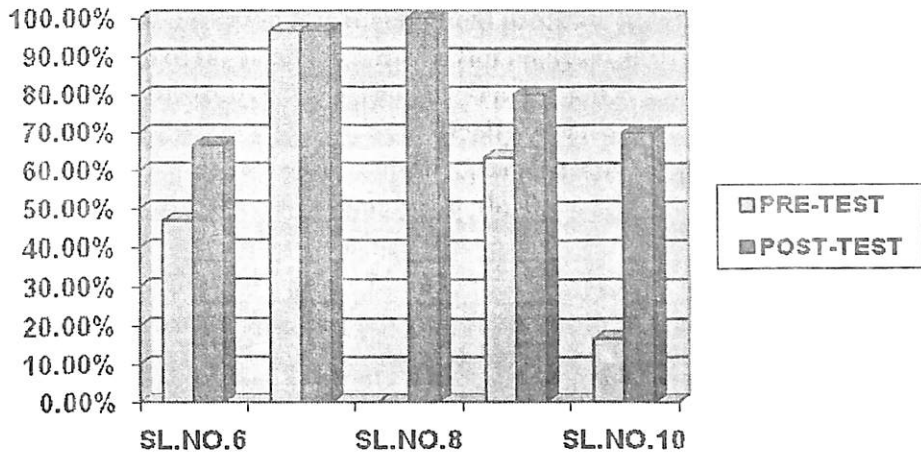


Fig - 3.1

### 3.3 Findings of the study :

After analyzing the whole study the investigator has found the following results-

- 1) The remedial measures given by the investigator have succeeded in increasing the interest of the students towards history. In the pre-test the no of students who like history was 3. After that the investigator gave some remedial measures to increase the interest of the students towards history. In the post-test the number of students who like history is 21. So, this shows that the remedial measures of the investigator have worked properly to increase the interest of the students.
- 2) In the pre-test, it is seen that only 20% of the students of that particular class have shown interest towards social science. But in the post-test 73.33% of the students have said that they have developed their interest towards social science.
- 3) The remedial measures given by the investigator have also succeeded in removing boredom of the students that they got from studying history. The percentage of students who find history boring before the remedial measures given by the investigator was 90%. But that percentage drops significantly to 33.33% after applying the remedial measures. That means two third of the students don't find history boring after adopting the remedial measures.
- 4) One of the major problems of the students observed by the investigator is that students easily forget that particular dates and events relating to history and almost all the students have admitted that in the pre-test. So, regarding this problem the investigator has given a remedial measure to solve. Although that measure has not benefited all the students, but more than half of the students have admitted in the post-test that the remedial measures have worked for them and now they don't easily forget the particular dates and events of history.
- 5) The investigator has found in the pre-test that only 63.33% of the whole students pay attention in the history class. That means although the remaining 36.67% of the students attend the history class physically, but their mind is not there. But in the post-test investigator has found that 80% of the students pay attention in the history class and that suggest that the remedial measures given by the investigator have marked.
- 6) This study of lack of interest towards history has also changed the outlook of some of the students towards history. In the pre-test, only 14 students out of the 30 students have said that they think that learning of history help them in enhancing their overall knowledge. But in the post-test five more students i.e 20 students.
- 7) The study has not only helped the students, but also teachers. In the pre-test not a single student has said that their teachers use specific teaching aids while

teaching history. In case teaching history specific teaching aids like charts, pictures, films, field trips etc relating to subject-matter. So, after the remedial measures the teachers use specific teaching aids and that has really helped in growing their interest towards history. That why 100% of the students have said in the post test that their teachers use specific teaching aids.

- 8) The syllabus of history has also to be questioned. It because in the pre-test almost all sample students have said that they found the history syllabus too long. According to them, the syllabus is very lengthy and time consuming. The student's response towards the syllabus has not changed even in the post test.
- 9) Before the remedial, 70% of the students have admitted that they may find history tough. But after the remedial only 36.67% of the students find history tough.
- 10) In the pre-test only 5 students have said that they consider history to be a subject to learn. Whereas, after the post test the number increases to 21.

### **3.3.1 MAJOR FINDINGS :**

The major findings of the study are as follows:-

- ❖ Most of the students consider this syllabus of history very lengthy.
- ❖ There is a significant increase of interest towards the subject history among the students after they were given the remedial measures.
- ❖ The remedial have also succeeded in remaining the boreness of the students. In the pre-test, 90% of the students said that they find history boring. But in the post-test that percentage significantly dropped to 33.33%.
- ❖ The remedial measures have also changed towards the subject history. Most of the students now feel that learning of history is essential for them to enhance their overall knowledge.
- ❖ The use of specific teaching aids also plays a vital role while teaching history. The use of specific teaching aids also helps in increasing the interest of the students towards the subject history and the study also plans the same.

### **3.3.2 EXAMINATION OF ACTION HYPOTHESIS**

From the above analysis it is seen that both the hypothesis are accepted. The study has helped the students to enhance their interest towards the subject history and it has also helped them in removing their boreness from that particular subject.

### **4.1 SUGGESTIONS AND RECOMMENDATIONS**

After the whole study of the topic the investigator has given suggestion and recommendation to solve the problem of lack of interest of the students towards the history part of their social science textbook.

### 4.1.1 Suggestions

The suggestions of the investigator are as follows-

- ❖ As most of the students find history boring, so the teacher should make such an environment in the classroom so that students find the class interesting.
- ❖ Teacher should also use different methods of teaching. As it is seen that teachers use only the traditional method of teaching history, i.e. the lecture method. But only lecture method is not sufficient for teaching history and moreover most of the students feel boreness towards the subject history because of this lecture method. So, the teacher should also use other methods of teaching, such as discussion method, story telling method etc. In discussion method, the students are also involved in the whole process and so they may find it interesting to learn history.
- ❖ Students should also be taken for field trips to such places having historical importance. That will definitely arouse interest among the students to know more and learn more about history.
- ❖ The use of specific teaching aids is also an important element of teaching history. The uses if specific aids arouse interest among the students to learn history.
- ❖ The teacher should give special attention to the students who are not so good at studies. Those students hardly give attention in the social science class especially in the history class. So, it's the duty of the teacher to draw their attention towards there studies.
- ❖ The students should also realize history is included in their textbook because it has utmost importance in their whole life. One cannot solve any problem easily without knowing the past. So, it's the students should also get that.
- ❖ There should be good relation between the students and the teachers so that the students do not make any hesitation while making communication with their teacher and in this way also the teacher can arouse interest among the students to learn history.
- ❖ The parents should also look after their children well. They should discuss with their children about their studies regularly.

### 4.1.2 RECOMMENDATIONS:

Following recommendations are given by the investigator to the teacher:-

- ❖ Specific teaching aids must be use while teaching history.
- ❖ Class test should be conducted very frequently
- ❖ Teacher should give homework to the students
- ❖ Discussion method must be used often

From the above study it can be said that the project has really help the students in

increasing their interest towards the subject history. So, it can be concluded that this action research project is really helpful for the students and the same project can be used for further research. And this action research project will also help in solving out some other problems of the students, such as Lack of interest in mathematics, lack of interest in general science etc.

### **Conclusion :**

The investigator has decided to study about the problem, "**LACK OF INTEREST IN SOCIAL SCIENCE WITH SPECIAL REFERENCE TO HISTORY PART AMONG THE STUDENTS OF CLASS X OF A SECONDARY SCHOOL**". During the study, the investigator first briefly describe about the basic concept of **SOCIAL SCIENCE AND HISTORY** then about its importance to the students. Then the investigator properly elaborates the significance of social science and history. While describing about the significance, the investigator is able to find out the probable causes of this problem. After that the investigator has chosen the method through which the investigator will study the problem. Method has helped the investigator to study the problem properly and more precisely. Then the investigator has taken the whole class for the project i.e 30 students. After that the investigator has used the **QUESTIONNAIRE** for data collection.

After conducting the pre-test the investigator has given some remedial measures for a week and told the students to apply those. Then the investigator conducts a post-test. The investigator analyses the data thereafter and has given some suggestions and recommendations as well for the improvement of the students and enhancing their interest towards the history part of social science.

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# POOR PERFORMANCE OF STUDENTS OF CLASS IX IN MATHEMATICS IN SECONDARY SCHOOL

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## INTRODUCTION

### 1.0.0: Importance of mathematics for a secondary school

In the increasingly tech world we live in, math is more important than ever since it is the basis of that world. Mathematics boosts our logic, mental ability to solve problems that may help us in our everyday life. It is not just about the numbers. It teaches a very particular mindset, not just being precise and logical and the usual stuff they deal with, but also how to hold many interrelated patterns in your heads about a situation and how to use that situation from different in angles.

Math is much more than enrolling in algebra, Geometry and calculus during high school. "It is about the skills students acquire in order to accomplish daily tasks and to set and reach goals," said Tricia Kehn.

A list of important skills obtained from math courses are as follow:

- ❖ The ability to identify and analyze patterns
- ❖ Logic and critical thinking skills
- ❖ Ability to see relationships
- ❖ Problems solving skills

While in secondary school, mathematics skills are applied throughout all of the courses- reading a graph in history, completing a chemistry experiment, understanding the rhythm in music and dance and so on.

As for life beyond education, a student's math skills can help them:

- ☞ Save for college
- ☞ Build their credit score
- ☞ Understand their health as applied to blood pressure, cholesterol levels and calories
- ☞ Develop critical thinking, problems solving and deductive logic and reasoning skills.

## 1.01 Aims and Objectives of Mathematics

The aims of teaching and learning mathematics are to encourage and enable the students to:

- ❖ Recognize that mathematics permeates the world around us.
- ❖ Appreciate the usefulness, power and beauty of mathematics.
- ❖ Enjoy mathematics and develop patience and persistence when solving the problems.
- ❖ Understand and be able to use the language, symbols and notations of mathematics.
- ❖ Develop mathematical curiosity and use inductive and deductive reasoning when solving problems.
- ❖ Become confident in using mathematics to analyze and solve problems both in school and in real-life situations.
- ❖ Develop the knowledge, skills and attitudes necessary to pursue further study in mathematics.
- ❖ Develop abstract, logical and critical thinking and the ability to reflect critically upon their work and the work of others.
- ❖ Develop a critical appreciation of the use information and communication technology in mathematics.
- ❖ Appreciate the international dimension of mathematics and its multicultural and historical perspectives.

## OBJECTIVES

### A. knowledge and understanding

Knowledge and understanding are fundamental to studying mathematics and form the base from which to explore concepts and develop problem solving skills. Through knowledge and understanding students develop mathematical reasoning to make deductions and solve problems.

At the end of the course, students should be able to:

- ❖ know and demonstrate understanding of the concepts from the five branches of mathematics (number, algebra, geometry and trigonometry, statistics and probability, and discrete mathematics)
- ❖ Use appropriate mathematical concepts and skills to solve problems in both familiar and unfamiliar situations including those in real-life contexts.
- ❖ Select and apply general rules correctly to solve problems including those in real-life contexts.

## B. INVESTIGATING PATTERNS

Investigating patterns allows students to experience the excitement and satisfaction of mathematical discovery. Mathematical enquiry encourages students to become risk-takers, inquirers and critical thinkers. The ability to inquire contributes to lifelong learning.

Through the use of mathematical investigations, students are given the opportunity to apply mathematical knowledge and problem solving techniques to investigate a problem, generate and analyze information, find relationships and pattern, describe mathematically as general rules and justify or prove them.

At the end of the course when investigating problems, in both theoretical and real-life contexts, students should be able to:

- ❖ Select and apply the appropriate inquiry and mathematical problem solving techniques.
- ❖ Recognize patterns
- ❖ Describe patterns as relationships or general rules
- ❖ Draw conclusions consistent with findings
- ❖ Justify or prove mathematical relationships and general rules.

## C. COMMUNICATION IN MATHEMATICS

Mathematics provides a powerful and universal language. Students are expected to use mathematical language appropriately when communicating mathematical ideas, reasoning and findings- both orally and in writing.

At the end of the course, students should be able to communicate mathematical ideas, reasoning and findings by being able to:

- ❖ Use appropriate mathematical language (notations, symbols, terminology) in both oral and written explanations
- ❖ Use different forms of mathematical representation ( formulae, diagrams, tables, charts, graphs and models)
- ❖ Move between different forms of representation

## D. REFLECTION IN MATHEMATICS

The secondary mathematics encourages students to reflect upon their findings and problem solving processes. Students are encouraged to share their thinking with teachers and peers to examine different problem solving strategies. Critical reflection in mathematics helps students gain insight into their strengths and weaknesses as learners as to appreciate the values of errors as powerful motivators to enhance learning and understanding.

At the end of the course students should be able to:

- ❖ Explain whether their results make sense in the context of the problem
- ❖ Explain the importance of their findings
- ❖ Justify the degree of accuracy of their results where appropriate



❖ Suggest improvements to the method, when necessary

### ❑ 1.0.2 PLACE OF MATHEMATICS FOR A SECONDARY SCHOOL

The place of mathematics as a subject in the school curriculum in India has always been valued and the need for improvement in its content and pedagogy has been emphasized by various commissions on education constituted by Government of India.

### ❑ 1.0.3 DIVISIONS OF MATHEMATICS

Mathematics has become a vastly diverse subject and there is a corresponding need to categorize the different areas of mathematics. A number of different classification schemes have arisen. As mathematics evolves, these classification schemes must evolve as well to account for newly areas or newly discovered links between different areas. Classification is made more difficult by some subjects, often the most active, which straddle the boundary between different areas.

A traditional division of mathematics is into pure mathematics; mathematics studied for its intrinsic interest and applied mathematics, mathematics which can be directly applied to real world problems. Broad divisions such as discrete mathematics and computational mathematics have emerged more recently. Mathematical concepts cover numerical, algebraic, geometrical, statistical, probabilistic and analytical concepts.

#### **ARITHMETIC**

Arithmetic is the study of quantity.

#### **ALGEBRA**

The study of structure begins with numbers, first the familiar natural numbers and integers and their arithmetical operations, which are recorded in elementary algebra. The deeper properties of these numbers are studied in number theory. The investigation of methods to solve equations leads to the field of abstract algebra, which, among other things, studies rings and fields, structures that generalize the properties possessed by everyday numbers.

#### **NUMBER THEORY**

Number theory is traditionally concerned with properties of integers. More recently, it has come to be concerned with wider classes of problems that have arisen naturally from the study of integers. It can be divided into elementary number theory (where the integers are studied without the aids of techniques from the other mathematical fields): analytical number theory (where calculus and complex analysis are used as tools): algebraic number theory (which study the algebraic numbers- the roots of polynomials with integers coefficients): geometric number theory; combinatorial number theory: transcendental number theory: and computational number theory.

#### **GEOMETRY**

Geometry deals with spatial relationships using fundamental qualities or axioms.

Such axioms can be used in conjunction with mathematical definitions for points, straight lines, curves, surface and solids to draw logical conclusions see also list of geometry topics.

## APPLIED MATHEMATICS

### PROBABILITY AND STATISTICS

- ✎ Probability theory: the mathematical theory of random phenomena. Probability theory studies random variables and events, which are the mathematical abstractions of non- deterministic events or measured quantities. See also *category: probability theory and the list of probability topics.*
- ✎ Statistics: the science of making effective use of numerical data from experiments or from populations of individuals. Statistics include not only the collection, analysis and interpretation on such data, but also the planning of the collection of data, in terms of the design of surveys and experiments. See also the list of statistics topics and categories.

## COMPUTATIONAL SCIENCES

### *Numerical analysis*

Many problems in mathematics cannot in general be solved exactly. Numerical analysis is the study of iterative methods and algorithms for approximately solving problems to a specified error bound. Includes numerical differentiations, numerical integration and numerical methods.

#### *1.0.4 Method of teaching mathematics*

Students should develop and explore the mathematics ideas in depth, and see that mathematics is an integrated whole, not merely isolated piece of knowledge. They should be given a variety of learning experiences to help them for developing a deep understanding of mathematical concepts and to make sense of various mathematical ideas as well as their connections and applications, in order to participate actively in learning mathematics and to become more confident in exploring and applying mathematics.

Modern mathematics teaching methodology offers various possibilities for solving the problem of involving students in independent and research work; it develops their problem solving skills and develops their creative thinking processes and skills. One of those possibilities is in the area of scientific framework. The foundation of scientific framework is the principle of science and scientific research methods science in various segments of math teaching starting with the nature of math to mathematical tasks as an important method in shaping the system of basic mathematical knowledge, ability and habits in students. Some drawbacks in math teaching are mentioned which occurred due to the inappropriate treatment of science in the teaching process.

Methods are the way to understand and practice art; and this goes for the "how"

aspect of teaching mathematics "How to impart mathematical knowledge?" and "How to enable the child to learn it?"

The main methods are the lecture method, the inductive and deductive; the analytic and the synthetic; the problem solving, the heuristic and the laboratory.

#### *Lecture method*

The 'Lecture Method' is otherwise known as 'the chalk and talk method' where in verbal explanation is given for facts. This is a teacher centered method, teacher is an active participant and child is a passive learner. It is a one way traffic or flow of ideas. This is the method of imparting information through speech. This is a one man's show because children remain passive throughout the process.

It is an easy, concise and attractive method. Using this method the teacher feels safe and secure. Using this method, a large amount of subject matter can be presented within a short time and the prescribed syllabus can be covered easily. It can be used for a large number of students. It is economical with respect to time and money.

#### **THE ANALYTIC AND SYNTHETIC METHOD**

Synthetic method is derived from the word synthesis. Synthesis is the complement of analysis. To synthesize is to combine the constituent elements to produce something new. In this method we start with something already known and connect it with the unknown part of the statement. Therefore, in this method one proceeds from known to unknown. It is the process of combining known bits of information to reach the point where unknown information becomes obvious and true.

Analysis means breaking up into components. Here one starts from what is to be proved and then comes back to what is given. Here one proceeds from unknown to known.

#### **THE INDUCTIVE AND THE DEDUCTIVE METHOD:**

The advantage of applying induction: implementation of the easier to more difficult principle, simpler to complex, studying new abstract concepts and phrases through observation and assessment, guiding students to new concepts, expression of new theorems etc. the inductive approach is important in the development of a student's thought process which on the other hand is necessary for acquiring a lot of content in school math. Among such content are various rules, regularities, formulas, theorems, especially if they are not strictly derived or proven.

The opposite of induction is deduction. The deduction process of thinking and proving takes place after induction, at math teaching and math education.

#### **THE PROBLEM SOLVING METHOD:**

Presenting a problem and developing the skills needed to solve that problem is more motivational than teaching the skills without a context. It allows the students to see a reason for learning the mathematics and hence to become more deeply involved in

learning it. Teaching through problem solving can enhance logical reasoning, helping people to be able to decide what rule, if any, a situation requires, or if necessary to develop their own rules in a situation where an existing rule cannot be directly applied. Problem solving can also allow the whole person to develop by experiencing the full range of emotion associated with various stages of the solution process.

### **THE HEURISTIC METHOD:**

The word 'Heuristic' has been derived from the Greek word 'Heurisko' which means 'I find' or 'I discover'. This method implies that the attitude of students shall be that of the discoveries and not of passive recipients of knowledge.

According to H.E.Armstrong, "This is the method of teaching which places the pupils as far as possible in the attitude of a discover."

### **THE LABORATORY METHOD:**

Approach may be defined as "learning by doing". The approach has the support of theorists. In an organized situation, pupils are able to proceed at their own rate. Pupils develop their own spirit of inquiry.

At the secondary stage, a special emphasis on experimentation and exploration may be worthwhile. Mathematics laboratories are a recent phenomenon. Activities in practical mathematics help students immensely in visualization.

### **1.0.5 AIDS NECESSARY FOR TEACHING MATHEMATICS**

The use of manipulative concrete materials, practical work. And use of technological aids are the parts of the learning experience of the students in the field of mathematics.

Students are encouraged to choose and use ICT tools as appropriate and where available to enhance communication of their mathematical ideas, ICT tools can include graphics, display calculators, screenshots, graphing, spreadsheets, databases, and drawing and word processing software.

Calculators are useful in this strand to generate data for numerical experiments, to help understand the workings of matrix, vector and complex number, algebra and to experiment with non-integer exponents. Non-projected aids used are:

- I. Graphic aids: graphs, charts, diagrams
- II. Display board: chalk board, Flanner board
- III. 3-dimensional aids: Models
- IV. Audio aids: radio and tape recorder

## 1.0.6 SYLLABUS OF MATHEMATICS FOOLOWED BY THE SELECTED SCHOOL

TABLE NO.1- SYLLABUS OF MATHEMATICS FOR IX CLASS

SL.NO	NAME OF UNIT
CHAPTER 1	NUMBER SYSTEM
CHAPTER 2	POLYNOMIALS
CHAPTER 3	COORDINATE GEOMETRY
CHAPTER 4	LINEAR EUATION IN TWO VARIABLES
CHAPTER 5	INTRODUCTION OF EUCLID'S GEOMETRY
CHAPTER 6	LINES AND ANGLES
CHAPTER 7	TRIANGLES
CHAPTER 8	QUADRILATERALS
CHAPTER 9	AREAS OF PARALLELOGRAMS AND TRIANGLES
CHAPTER 10	CIRCLES
CHAPTER 11	CONSTRUCTIONS
CHAPTER 12	HERON'S FORMULA
CHAPTER 13	SURFACE AREAS AND VOLUMES
CHAPTER 14	STATISTICS
CHAPTER 15	PROBABILITY

Is standards are listed in conceptual categories:

1. **Number and Quantity**
2. **Algebra**
3. **Functions**
4. **Modeling**
5. **Geometry**
6. **Statistics and Probability**
7. **Contemporary mathematics**

### **Number and Quantity**

A number is something that can be used to do mathematics: calculate, solve equations or represent measurements. In secondary school, students will be exposed to yet another extension of number, when the real numbers are augmented by the imaginary numbers to form the complex numbers.

Although the notion of number changes, the four operation stay the same in important ways. The commutative, associative and distributive properties extend the properties of

operation to the integers, rational no, real nos, ans complex nos. Extending the properties of exponents leads to new and productive notation.

In secondary school, students encounter a wide variety of units in modeling, e.g. acceleration, currency conversions, derived quantities such as person hours and heating degree days, social science. They also encounter noble situations in which they themselves must conceive the attributes of interest. Units are used as a way to understand problems and to guide the solution of multi step problems, to choose and interpret unit's consistently in formulas and interpret the scale and the origin in Graphs and data displays. To define appropriate quantizes for the purpose of descriptive modeling. To choose a level of accuracy appropriate to limitations on measurements when reporting quantizes.

#### **Contemporary mathematics :**

Conceptual categories portray a coherent view of high school mathematics, students work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus.

#### **1.0.7. MEDIUM OF INSTRUCTION**

The medium of instruction used in the school being English.

#### **1.0.8 EVALUATION SYSTEM**

The Continuous and Comprehensive Evaluation (CCE) system is follow by State Board of Assam (SEBA), 2014 for class IX. Continuous stands for assessment of a student throughout the year, not just at the end of a term. It may be done formally or in an informal way using different techniques

Of evaluation. Comprehensive takes care of assessment of all round development of a Childs personality. A child will be assessed not only in terms of his knowledge about a subject but his participation in other activities also. It includes assignments, projects, practical etc.

A school session is divided into two terms: First term and Second term. Each term has two Formative ASSESSMENT (FA1 and FA2, FA3 and FA4) and one Summative Assessment (SA1 and SA2). Syllabus covered in the first term will not be included in the second term.

Techniques of Evaluation consist of test and other items for measuring growth in particular outcomes of learning. Tools are the instruments used for measuring the learning outcome such as question papers, observation schedules, rating scale, checklists etc.

The tools used for CCE in scholastic domain are oral questions, assignments, conversation skills, projects, quizzes and group work. The tools for Summative assessment in scholastic domain are multiple choice questions, short answer type and long answer type descriptive questions at term end.

Tools and techniques are required to gather information. These should be valid, reliable and usable. Interpretation of gather information needs to be given in numerical scores, grades, as well as in qualitative terms. Judgment should be made not just on scholastic aspects but also on co-scholastic aspects which depend to a large extent on learning ambience and learning culture of an institution. As far as interpretation is concerned, attainment can be measured in terms of three levels. First is with reference to the learner himself/herself and current status of progress. The learning gaps need to be identified and marked upon. The second level is to identify the status of the learner with learner with reference to his/her peer group. (Percentile Rank). The third level is with reference to the criteria. The criterion means the expected level of learning keeping in view the required skills. An evaluation tool is a means of appraisal scientifically designed to evaluate or measure what is required to be evaluated or measured it.

### **1.1 SIGNIFICANCE**

Now it is there are five compulsory papers in secondary school all over India. Out of the five subjects Mathematics is one of the compulsory papers. In this information age Mathematics is very important and most essential for our day to day life. Every year new invention and discoveries taking place and we are adopting scientific approach in our daily activity.

Now a day's various advance topics are included in Mathematics subject at the secondary level students need to grasp the essentials and right kind of concept formation must be formed. This is to note that in a school we get a variety type of students coming from various socio-economic backgrounds having individual difference. There are difference with respect to intelligence, learning pace, memories, reasoning ability, thinking power and other psychological traits. Heredity and environment has great role to play in indentifying the individual capacity and capabilities. There are different types of student found in classroom situation. Some are intelligent, above intelligent, average, below average. There are student who are unable to perform as per expectation and such type of student fail to score certain optimum marks. As a result they score less marks termed as poor performer.

### **1.2 OBJECTIVE OF THE STUDY**

- ❖ To indentify the number of poor performer students in Mathematics subject
- ❖ To explore the reasons behind poor performance
- ❖ To suggest remedial measures for improvement of performance.

### 1.3 ACTION HYPOTHESIS

Table No. 2 : Action Hypothesis Tabulation

Sl.No	ACTIVITIES UNDERTAKEN	TIME PERIOD
1.	SELECTION OF TOPIC	1 <sup>ST</sup> WEEK OF NOV2014
2	FORMULATION OF QUESTIONNAIRE <ul style="list-style-type: none"><li>• TEACHER</li><li>• STUDENT</li></ul>	3 <sup>RD</sup> WEEK OF JAN 2014 2 <sup>ND</sup> WEEK OF FEB 2014
3	PRE TEST	2 <sup>ND</sup> WEEK OF MARCH2014
4	POST TEST	2 <sup>ND</sup> WEEK OF MARCH 2104
5	DATA COLLECTION	2 <sup>ND</sup> WEEK OF APRIL 2014
6	ANALYSIS OF DATA	4 <sup>TH</sup> WEEK OF MAY2014
7	REPORT WRITING	5 <sup>TH</sup> WEEK OF JUNE 2014

### 1.4 METHOD/ PROCEDURE

The present study is carried out by following descriptive survey method

### 1.5 POPULATION

The population of the present study consisted of

- ❖ A teacher teaching Mathematics
- ❖ 26 numbers of students.

### 1.6 SAMPLE

The sample consisted of four students out of 26 students.

This strategy used for selecting the sample based on the marks scored in the first Formative Test (FA1) conducted by the school. Only those student were selected who obtained less than 17 out of 50 marks and such kind of student happened to be only four.

### 1.7 tools

Following tools are prepared for the purpose of data collection

1. Questionnaire for Mathematics teachers (consisting of 8 items)
2. Questionnaire for the students (consisting of 12 items)

### 1.8 PRE TEST

At this the questionnaire framed are subjected to scrutiny by an expert in order to identify the nature and validity of the questionnaires prepared.

### 1.9 REMEDIAL MEASURES:

At this stage the number of questions accepted and rejected by the expert has come to the knowledge of the investigator.

### 1.10 POST TEST

In this stage the status of the questionnaire happens to be:



Questionnaire for Principal consists of six items, teachers consist of ten items and that of students consists of 10 items. In this way the final draft of the questionnaire being prepared by the investigator.

### 1.11 PROCEDURE FOR DATA COLLECTION

The principal of the school being approach by the investigator and necessary permission being sought for the purpose of data collection. Having obtained the permission questionnaires being offered to the target group and necessary information were collected.

### 2.0 BACKGROUND OF THE SCHOOL

The school under survey is a Secondary English medium School established in 1948. The medium of instruction used in the school being English. The school is housed in one storied building. It is a co-education school following Secondary Education Board of Assam (SEBA) syllabus. The enrollment in the school is 1100 and has 34 number s of classroom having library room. The school is located in a residential area. There are five compulsory subjects in the school and Mathematics is one of the subjects.

**Table No.03: MARKS OBTAINED IN FIRST FORMATIVE TEST**

	Mathematics	Science	English	Alt. English	Social Science	Elective
1	14(28)	38(76)	30(60)	37(74)	27(54)	33(66)
2	14(27)	35(70)	31(62)	38(76)	28(56)	35(70)
3	10(20)	15(30)	18(36)	18(36)	16.5(33)	19(38)
4	08(16)	15(30)	17(34)	20(40)	28(56)	25(50)

N.B: % is shown in Parentheses.

### 2.1 IDENTIFICATION OF POOR PERFORMER IN MATHEMATICS:

In the First Formative Assessment Test the marks scored by four students which happened to be less than 17 out of the total 50 marks. It is cleared that out of 26 students in class IX around 15% of the students scored less than 17. Also it is cleared from the table the maximum and minimum percentage of total marks obtained in six subjects happens to be 60.3 and 32.1 respectively. Out of four students half of the students score more than 59% but remaining half scored less than 38%. The performance of half of the students in all subjects except in Mathematics found to be more than 54%. Their performance in Mathematics is really poor. The performance of the remaining students are found to be very poor in almost all the subjects.also a graphical representation of the marks scored by the students is depicted in graph.

### 2.2 INSTRUCTIONAL PROCESS CARRIED OUT MATHEMATICS SUBJECT:

According to the response of the teacher it is found that the performance of the whole class in to last Summative Test happens to be average. The method adopted by the teacher in teaching mathematics subject being

- ❖ Chalk talk m. d.
- ❖ Project method
- ❖ Problem solving method

Following are the materials available for the Mathematics subject in school

- ❖ Text books of Mathematics
- ❖ Geometrical set

It is found that behavior of the students in Mathematics class according to teacher is that when questions are asked to students they try to respond.

According to the students respondents it is found that the Mathematics Teacher quite well. All the students express that Mathematics Teacher does take care. According to the students the teacher finishes the Mathematics course in time.

According to the students they face difficulty in:

1. Arithmetic
2. Geometry
3. Polynomial

According to the students the Mathematics Teacher uses:

1. Text books
2. Geometrical set

According to the students it is observed that the students do learn mathematics by solving problems from different books of mathematics. It is quite surprising to note that 3 out of 4 students have Math phobia.

According to the teacher the areas in which the poor performers face difficulties are:

**1. Arithmetic:**

- a) Number system
- b) Euclid's number

**2. Geometry**

- a) Circles
- b) Surface area and volume
- c) Quadrilaterals

**3. Polynomials:**

- a) Linear equation in two variables
- b) Representation of linear equation in real life situation

The teacher respondents stated that poor performers do the class work. But it is found to be incorrect when home work is given to do. Further the respondent stated that with respect to Home work only sometimes they work out.

The poor performers do face the following problems as stated by the teacher's

respondents:

- ❖ Less practice done
- ❖ Commit silly mistake
- ❖ Unable to apply formula

### **2.3 SUGGESTION FOR IMPROVEMENT**

Following suggestion have been put forward by the teacher respondent:

- ❖ Drill and practice
- ❖ Parent should take care
- ❖ Regular practice of mathematics is essential
- ❖ Audio visual aids needs to be introduced in the mathematics class
- ❖ Regular attendance in school is most essential.

### **2.4 FINDING OF STUDY**

- I. According to the responds of the teacher it is found that the performance of the whole class in last summative test happens to be average.
- II. In the first Formative Test the marks score reveals that only four students are identified as poor performer out 26 students in whole class.
- III. The performance of these four students practically in mathematics found to be really poor.
- IV. The method used by the teacher's teaching mathematics being chalk and talk method, project method, problem solving method.
- V. As per the response of the teacher it is found that when question are asked to these students they try to respond.
- VI. According to the students respondents they find the teaching of Mathematics to be quite nice.
- VII. The respondents of the students reveals that they face difficulty in Arithmetic, Geometry, Polynomials.
- VIII. Students do learn mathematics by solving problems from different books.
- IX. Out of these four students three have mathematics phobia.
- X. According to the teacher the class work given to the students are found to be incorrectly done most of the time even with respect to home work sometimes they work out.
- XI. Some of the problems faced by the poor performers as stated by teacher's respondent being silly mistakes, less practice done, making then understand a concept, unable to apply a formula.
- XII. Certain suggestion are put forward by the teacher respondent like drill and practice, parent care, introduction of audio visual aids and regular attendance.

Mathematics is a subject proficiency in which requires respective drill, speed and accuracy results from frequent practice.

Mathematics develops in mind reason and rationality a pre-condition for gaining onward mathematical knowledge. Fundamentalism of any sort inhabits reason and encourages beliefs. When reason frees the mind, belief fetters in beliefs. When reason stimulates the mind, belief stifles it.

Mathematics is the abstract science which investigates deductively the conclusions and spatial numerical relations. Mathematics has played a vital role in every sphere of human Endeavour throughout the world. It forms the basis of almost all other subjects. It has been included as a compulsory subject in curriculum of our country for the first ten years of school education. The National Policy of Education (NPE) visualizes mathematics as the vehicle to train a child to think reason, analyses and to articulate logically.

The basic foundation of mathematical ability is formed at the school level. It is true that all the individuals are not equally intelligent and do have mathematics ability but certain mathematical knowledge have to be inculcated for survival in this world. Schooling is a legal right and mathematics being a compulsory subject of study, access to quality, mathematics education is every child's right. It has become a prerequisite that knowledge of mathematics must be attained by all the students up to class X level.

School mathematics takes place in a situation where:

*Children learn to enjoy mathematics:*

This is an important goal, based on the premise that mathematics can be both used and enjoyed life-long, and hence that school is best placed to create such a taste for mathematics. On the other hand, creating or not removing a fear of mathematics can deprive children of an important faculty for life.

*Children learn important mathematics:*

Equating mathematics with formulas and mechanical procedures does great harm. Understanding when and how a mathematical techniques is to be used is always more important than recalling the technique from memory and the school needs to create such understanding.

Children see mathematics as something to talk about, to communicate, to discuss among them, to work together on. Making mathematics a part of children's life experience is the best mathematics education possible.

*Children pose and solve meaningful problem:*

In school, mathematics is the domain which formally addresses problem solving as a skill. Considering that this is an ability of use in all of one's life, techniques and approaches

learnt in school have great value. Mathematics also provides an opportunity to make up understanding problems and create new dialogues thereby.

□ Children use abstractions to perceive relationships, to see structure, to reason about things, to argue the truth or falsify of statements. Logical thinking is great gift mathematics can offer us, and inculcating such habits of thought and communication children is a principal goal of teaching mathematics.

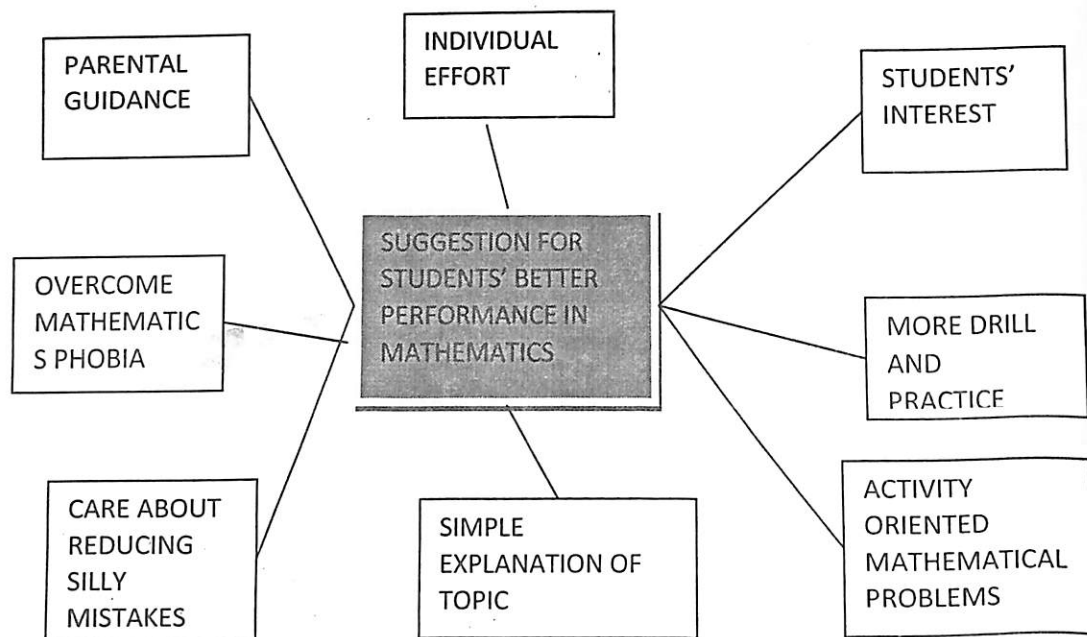
□ Children understand basic structure of mathematics: arithmetic's, algebra, geometry and trigonometry, the basic contents areas of school mathematics, all offer a methodology for abstraction, structure formulation and generalization. Appreciating the scope and power of mathematics refines our instincts in a unique manner.

□ Teachers expect to engage every child in class: setting for anything less can only act towards systematic exclusion, in the long run. Adequately challenging the talented even while ensuring the participation of all children is a challenge and offering teachers means and resources to do this is essential for the health of the system.

Due to individuals differences there are differences in performance in mathematics. All students cannot score high marks equally because the understanding level, ability to think, reason, and form concept differ from students to students. It is through training in school, parental guidance and individual effort, the performance of the student's matters. Student who has less interest or have different attitude towards mathematics are sure to perform poorly.

On our present study the number of poor performers found to be only four out of the total students in class IX. Though this number is very less yet, it effects the whole classroom situation. The motto of any teacher is to offer knowledge and training equally to all the students and expectation of the teacher is that all the students perform well and bring glory to the school. There are various factors like socio-economics condition of parents, student's negligence, teacher's method of teaching, understanding capacity of students, drills and practice etc leads to poor performance not only in mathematics but also in other subjects. Thus adequate step on the part of parents, teachers, and students has to be taken.

**FIGURE 2:** flow chart of suggestion for students' better performance on mathematics.



### 3.2 RECOMMENDATION

Following recommendation may be put forward:

1. Teacher should offer activity oriented task in solving mathematical problems.
2. Enriching teachers with a variety of mathematical resources
3. The topic in which the students find difficulty have to be explained in a simple way and if necessary topic may be revised.
4. It is the duty of the students to practice mathematics at home.
5. Parental care is felt necessary because the poor performance is found in almost all the subjects.
6. Interest towards mathematics subject needs due priority.

### 3.3 CONCLUSION

Mathematics is the part and parcel of our life. Whatever we do think is due to our mathematical concept. Through mathematics subject one's concept become clear, think in a logical way and the perception of an idea become clear. Through mathematics we form relationship between shapes and figures in exact amount. It teaches us to become perfect and there can be no alternatives like Social Science or other subjects.

Poor performers are found everywhere in every subjects in all schools because of the individual difference. There are a number of factors which may result in poor performance like engaging oneself in dance, games, sports, music, art, and other kind of activities. Some students have less patience, likings as such they do not find interest in doing mathematics. In some other cases it may be so the parents have no time to guide their wards. In some other case it may be so that they go for tuitions no doubt but nothing is gained from that only waste the time etc.

Each pupil is an individual with a unique personality. Pupils acquire knowledge, skills and attitudes at different times, rates and ways. Mathematics education in our school is best with problems. The following are the identified core areas of concern:

- a) A sense of fear and failure regarding mathematics among a majority of children.
- b) A curriculum that disappoints both a talented minority as well as the non-participating majority at the same time
- c) Crude methods of assessments that encourage perception of mathematics as mechanical computation
- d) Lack of teacher preparation and support in teaching of mathematics

Systematic problems further aggravate the situation in the sense that structures of social discrimination get reflected in mathematics education as well. Especially worth mentioning in this regard is the gender dimension, leading to a stereotype that boys are better at mathematics than girls.

Without practicing is very difficult to grasp any concept or any information in mathematics. This is to note that, it is not possible to memories line by line all the steps. We can memories the formulae, or the method in which it is done but for each of the problem it is not possible to memorizes line by for which drill and practice is the only way. Of course, the teacher could teach the mathematics should be proper.

There is a saying, "Practice makes man perfect". An individual who does not practice due to engagement in other activities are avoid practicing will surely result in dissatisfactory outcome.

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# A STUDY ON LACK OF INTEREST IN MATHEMATICS AMONG THE STUDENTS OF CLASS-IX IN A SECONDARY SCHOOL

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## **Introduction**

### **1.0.0 Conceptual background**

India is the land of great mathematician since 476 AD. To name a few like, the Indian mathematician and astronomer Aryabhata. He was born at Pataliputra near Patna in Bihar. His famous book is known as Aryabhrtial. In arithmetic, Algebra and place geometry Aryabhata suggested humerons rules. Another in the line is Brahmagupta the ancient Indian astronomer is credited with having put forth the concept or zero for the first time. Brahmagupta is said to have been born in the year 598 AD at Bhillamala in Gujarat, western Indian. This is followed by Bhasharacharya is the most well known ancient Indian mathematician. He was born on 1114 AD at Bijjada bida in the sahyadari hill. He is famous for his book siddhanta shiromani (a book on arithmetic), Bijaganita (algebra), goladnayaya (chapter on sphere-celestial globe), and granoganita (mathematics of a planet). Next in the row being Ramanujan was born in Brahmin family on December 22, 1887 at erode madras. His teacher were very much impressed by his injected and special gifted abilities in mathematics.

Thus India is the well known in the field of mathematics. In hindi, mathematics is known as 'GANITA' meaning thereby - The science of calculation. Mathematics is the science of measurement, quantity and magnitude. According to Benjamin Peirce, "Mathematics is the science that draws necessary conclusions. According to Galileo, "Mathematics is the science in which God has written the Universe"

The symbolism of mathematics is in truth the outcome of the general ideas which dominate the science. Mathematics and science education, including the metric system of measurement, are necessary at the different levels of schooling.

The first who introduced mathematical beauty as well as simplicity as criteria for a physical theory was Copernicus (Chandrasekhar 1973). Since then, these criteria have continued to play an extremely important role in developing scientific theories



(Chandrasekhar 1987). This is especially so for truly, creative work that seems to be guided by aesthetic feelings rather than by any explicit intellectual process (Ghiselin 1952). The positive influence on students attitudes towards mathematics, the experience of mathematical beauty would surely have as well a positive influence on students motivations for the study of mathematics. Of course this statement can only be confirmed on the basis of a classroom teaching that emphasizes students aesthetic feelings. The appreciation of mathematical beauty by students should thus be an integral component of mathematical education (Dreyfus and Eisenberg 1986). Complexity and simplicity are both named as principal factors for aesthetic: how do these nations fit together? If simplicity is named, it is mainly the simplicity of a solution of a complex problem, the simplicity of a proof to a theorem describing complex relationship, or the simplicity of representation of complex structures. It looks as if simplicity has to be combined in this way with complexity, in order to bring out aesthetic feelings (Brinkmann 2000). The criteria for aesthetic might give us an idea of how to choose mathematical objects for presentation in classroom, if we want to bring out aesthetic feeling in the students. However, we have to consider that the criteria for aesthetics noted above, have in the main been developed by mathematicians and scientists. Sinclair (2004) suggests, according to some prevalent experience of teachers, that there are stimuli that commonly trigger also students' aesthetic response. Mathematics as a subject is indispensable in the development of any nation with respect to science and technology since mathematics itself is the language of science. In this 21st century where virtually all attentions are shifted toward technological advancements and the mathematics education has gained due importance and place. Mathematics involves thinking logically and reasonably so as to understand how formulae are derived and their applications. In order to enhance learners' mastery and meaningful learning of mathematics, it is necessary to reduce to the bearable minimum its level of abstraction with the use of instructional materials. Mathematics is the study of numbers, set of points and various abstract elements together with relation between them and operations performed on them. In the beginning, mathematics curriculum in school was arithmetic, since people were just able to calculate, but by the early 1950s the concept of mathematics in the school as subject had developed and was being taught in three different sessions as arithmetic, geometry and algebra. One of the objectives of teaching mathematics in all strata of education, from primary school level upward is the attainment of an understanding of the nature of subject within the umbrella of a science education in relation to everyday activities of ones life as asserted by Adenegan (2003). Mathematics leads people into discovering things. However, new discoveries cannot be made unless it is effectively taught through application of adequate and efficient human & physical facilities. Education can be defined as the process of imparting and acquisition of knowledge through teaching and learning especially at a

formal setting such as schools or similar institutions (Alao, 1997). Thus, education can be perceived as a process whereby a person learns how to learn. It actually begins at birth and ends at death. In fact, education is an age-long concept.

Mathematics as a subject is part of the curriculum content taught and learn at different educational strata. Education enriches man with information. Interest is an important force determining the quality of learning (Baumert & Schnabel, 1998; Schiefele, Krapp & Winteler, 1992) as well as educational and occupational choices (Nagy, Trautwein, Baumert, ko'ller and Garrett, 2006). Therefore the lack of academic interest among many adolescents students is a major problem for educators (Hidi & Harackiewicz, 2000). The domains of mathematics and science in particular seem to repel many students during adolescence (Hoffmann, Krapp, Renninger and Baumert 1998; Kessels and Hannover 2007). Research has repeatedly shown downward developmental trends of mathematics interest during the course of secondary school (Eccles et al, 1983; Fredricks & Eccles 2002; Jacobs, Lanza, Osgood, Eccles and Wigfield, 2002, ko'ller, Baumert & Schnabel, 2001; Watt, 2004). Another consistent finding in the literature on mathematics interest is the effect of gender; a number of studies have documented that boys are more interested in mathematics than girls (Eccles et al, 1983; Fredricks & Eccles 2002; Hoffmann et al, 1998; Jacobs et al, 2002; OECD, 2004; Watt, 2004). Mathematics thus still seems to be considered a male domain (Hyde, Fennema, Ryan, Frost & Hopp, 1990; Kessels & Hannover, 2007) and girls even more so than boys, seem to have an aversion to this domain. The consistent decline and the gender differences in mathematics interest during adolescence are of practical relevance. There is a need to catch and hold students' interest in mathematics, to tap the full potential of talents within this domain- both male & female- and to encourage them to pursue related careers. Expertise in mathematics is a necessary condition for important advances in our society, for example, in engineering and information technologies (Watt, Richardson & Pietsch, 2009). Interest is generally seen as being content-specific (e.g. Hidi & Renninger, 2006; Krapp, 2000; Schiefele, 1991). That is there is no such thing as general student interest- a student may be highly interested in literature, but not in mathematics or vice versa. By implication, any scientific inquiry into the topic of interest should adopt a domain-specific approach. In the present study, we focus on the domain of mathematics. Third, the construct of interest is conceptually very close to those of values and enjoyment. Interest-triggered actions are characterised by the enjoyment one experience while engaging in them, paired with a conviction of the personal signification of the action ( Krapp, 2000; Renninger, 2000; Schiefele, 1991). Interest develops from a universal curiosity and boundless energy to explore and learn new skills in childhood, to select preferences on certain fields. Interest losses have been explained by factors inherent in age-related changes, such as increased task complexity, demands for effort and a resultant

lack of the intrinsic attractiveness of academic contents (Hidi, 2000; Zimmerman & Kitsantas, 1999) as well as changes in social relationship during adolescence (Hidi, 2000) that bring about a decrease in academic interests as a response to increasing social interests. In the adolescent years, the strong influence that parents exert on their children's value formation is increasingly expanded and challenged by peer influences (Brown 1990; Kindermann 1993). Teachers' attitude and enthusiasm are likely related to students' interest developments (e.g. Eccles et al 1993). There is a positive relationship between teachers' verbal and non-verbal messages about the value of learning material, on the one hand and the students' interest and intrinsic motivation, on the other hand (Brigham, Scruggs and Mastropieri, 1992; McKinney, Robertson, Gilmore, Ford, & Larkins, 1984; Patrick, Hisley, Kempler and College, 2000).

### **1.1.0 Characteristics of Mathematics**

Characteristics of mathematics are -

#### **1.1.1 Wide Applicability and the effectiveness of Mathematics**

General applicability is a recurring characteristic of mathematics: mathematical truth turns out to be applicable in very distinct areas of application in phenomena from across the universe to across the street.

Mathematics is widely useful because the five phenomena that it studies are ubiquitous in nature and in the natural instincts of man to seek explanation, to generalize, and to attempt to improve the organization of his knowledge. As mathematics has progressively advanced and abstracted its natural concepts, it has increased the host of subjects in secondary school curriculum to which these concepts can be fruitfully applied.

#### **1.1.2. Abstraction and Generality**

Abstraction is the generalization of myriad particularities. It is the identification of the essence of the subject, together with a systematic organization around this essence. By appropriate generalizations, the many and varied details are organized into a more manageable framework. Work within particular areas of detail then becomes the area of specialists.

Put another way, the drive to abstraction is the desire to unify universe instances under a single conceptual framework. Beginning with the abstraction of the number concept from the specific things being counted, mathematical advancement has repeatedly been achieved through insightful abstraction. These abstractions have simplified its topic, made the otherwise often overwhelming number of details more easily accessible, established foundations for orderly organization, allowed easier penetration of the subject and the development of more powerful methods.

#### **1.1.3. Simplicity, Complexity**

For the outside looking in, it is hard to believe that simplicity is a characteristic of

mathematics. Yet, for the practitioner of mathematics, simplicity is a strong part of the culture. The mathematics desires the simplest possible single exposition is possible at the price of additional terminology and machinery to allow all of the various particularities to be subsumed into the exposition at the higher level.

This is significant: although the mathematicians may indeed have found his desired single exposition (for which reason he claims also that simplicity has been achieved), the reader often bears the burden of correctly and conscientiously exploring the quite significant terrain that lies beneath the abstract language of the higher level exposition.

Thus, I believe it is the mathematician's desire for a single exposition that leads to the attendant complexity of mathematics, especially in contemporary mathematics.

#### **1.1.4. Logical Derivation, Axiomatic Arrangement**

Characteristics of logical derivability and axiomatic arrangement are inherited from the ancient Greek tradition of Thales and Pythagoras and are epitomized in the presentation of Geometry by Euclid (The Elements).

It has now always been this way. The earliest mathematics was firmly empirical, rooted in man's perception of number (quantity), space (configuration), time and change (transformation). But by a gradual process of experience, abstraction, and generalization, concepts developed that finally separated mathematics from an empirical science to an abstract science, culminating in the axiomatic science that it is today.

It is this evolution from empirical science to axiomatic science that has established derivability on the basis for mathematics.

This does not mean that there is no connection with empirical reality quite the contrary. But it does mean that mathematics is, today built upon abstract concepts whose relationship with real experiences is useful but not essential. These abstraction means that mathematical fact is now established without reference to empirical reality. It may certainly be influenced by this reality, as it often is, but it is not considered mathematical fact until it is established according to the logical requirements of modern mathematics.

#### **1.1.5. Precision, Correctness, Evolution through Dialectic**

Over the course of the 3000 years, mankind has developed sophisticated spoken and written natural languages that are highly effective for expressing a variety of moods, motives and meanings. The language in which mathematics is done has developed no less and when mastered, provides a highly efficient and powerful tool for mathematical expression, exploration, reconstruction after exploration and communication. Its power (when used well) comes from simultaneously being precise (unambiguous) and yet concise (no superfluities, nothing unnecessary). But the language of mathematics is no exception to being used poorly. Just as any language, it can be used well or poorly.

Once correctness in mathematics is separated from empirical evidence and moved

into a model based or axiomatic framework, the touchstone for correctness becomes other, carefully selected, that captures the essential elements of the underlying reality, definitions, axioms, previously established theorems. The language of mathematics, and logical reasoning using that language, from the everyday working experience of mathematics.

### **1.2 Why Study Mathematics**

The main reason for studying mathematics at the secondary level is that it is interesting and enjoyable. Individuals like its challenges, clarity and the fact. The solution of a problem has an excitement and satisfaction.

The wide importance of mathematics and the way in which it is advancing at a spectacular rate is astonishing. Mathematics is about pattern and structure; it is about logical analysis, deduction, calculation within these pattern and structures. When patterns are found, often in widely different areas of science and technology, the mathematics of these patterns can be used to explain and control natural happening and situations. Mathematics has a pervasive influence in everybody lives, and contribute to the wealth of our country.

#### **The importance of mathematics:**

The use of arithmetic and the display of information by means of graphs are everybody commonplace. These are the elementary aspects of mathematics:

1. The physical science (physics, chemistry, oceanography, astronomy) require mathematics for the development of their theories.
2. In ecology, mathematics is used when studying the law of population change.
3. Statistics provides the theories and methodology for the analysis of wide varieties of data.
4. Statistics is also useful in medicine, for analysing data on the causes of illness and on the utility of new drugs.
5. Travel by aeroplane would not be possible without the mathematics of airflow and of control systems.
6. Body scanners are the example of subtle mathematics, discovered in the 19th century, which makes it possible to construct an image of the inside of an object from information on a number of single X-ray views of it. Thus mathematics is often involved in matters of life & death.

These applications have often developed from the study of general ideas for their own sake: numbers, symmetry, area and volume, rate of change, shape, dimensions, randomness and many others. Mathematic makes an especial contribution to the study of these ideas namely the methods of

1. precise definitions;
2. careful and rigorous arguments; representation of ideas by many methods,

- including symbols and formulae, pictures and graphics;
3. means of calculations;
  4. And the obtaining of precise solution to clearly stated problems, or clear statement of the limits of knowledge.

These features allow mathematics to provide a solid foundations to many aspects of daily life, and to give a comprehension of the complexities inherent in apparently quite simple situations.

For these reasons, mathematics and calculations have been associated from earliest times. In modern times, the need to perform rapid mathematical calculations in war time, particularly in ballistics and in decoding was a strong stimulus to the development of the electronic computer. The existence of high speed computers has now helped mathematicians to calculate and to make situations visualize as never before. Also this calculation has developed from numerical calculations, to symbolic calculations, and to currently calculations with the mathematical structures themselves. The last is very recent, and is likely to lead to a major transformation. These capacities change, not the nature of mathematics, but the power of the mathematicians, which increases perhaps a million fold the possibility to comprehend, to argue, to explore.

Mathematics is a wonderful and exciting subject, but how it works, and why it is so successful, are not matters which are easy to understand, even by its practitioners. Perhaps full explanations would require deeper analysis of language, thought than are at present available. Nonetheless, it is desirable in degree course for there to be some discussions and analysis of the project in mathematics (symbols, abstraction, generalization, formalization, proof, problem solving method etc.), to help you grasp the underlying ideas, set the subjects in context, and to relate to the learning of technique to an understanding of how these techniques fit into a general scheme. You must see how the apparently abstract nature of mathematics is one of the reasons for its power, since it enables the exploitation of analogies between apparently diverse situations.

Mathematics is an important subject in secondary school curriculum. It is more closely related to our daily life as compared to other subjects. Mathematics is considered as a father of science. In present day, mathematics has given an important place in secondary school curriculum. For giving a place in curriculum there is no special need of evaluation and testing of it. Mathematics also help to develop the child as social and intellectual citizen, like other subject. It has its own disciplinary values. It is true in each and every sphere of our daily life mathematics provides us its help and patronage without which we cannot do anything. The knowledge of mathematics is very versatile and requires in all the day to day life activities beginning from awakening to sleep in night. Thus we can say that in our daily life mathematics is as mixed as the oxygen in the air.

Every daily of our life begins and ends with the mathematical thinking and reasoning. For example: daily household problems, food, clothing, idea of quantity and quality, daily account of income expenditure, allocation of funds etc. Such type of day to day problems cannot be solved without the knowledge of mathematics. Young J. W. A has remarked that "whenever we turn in these days of iron, steam and electricity we find that mathematics has been the pioneer were its backbone removed, our material civilization would inevitably collapse". Create mathematicians Hubsch has also emphasized that, "Mathematics is like a wheatstone and by its study one learns to think distinctly, consecutively and carefully"

Hence without the proper knowledge of mathematics literate as well as illiterate people cannot solve their daily life problems. Thus knowledge of mathematics is required in every profession of mathematics. Knowledge of mathematics is correlated with our day to day life activities. Each and every individual need the knowledge of mathematics at every movement.

### **1.3.0. Interest:**

Interest has been regarded as an aid attention. Psychologists are of the opinion that there is no attention without sufficient interest. The teacher has important duties and responsibilities for creating interest and ensuring the attention of children in the class.

According to John Dewey, "Genuine interests, in short, simply mean that a person has identified himself with, or has found himself in, a certain course of action. According to J.P. Guildford, "when an organisms discovers that certain objects and responses lead to the satisfaction of motives, it shows interest in these objects or responses. Interests are inclinations to attend or to seek certain stimuli or to indulge in certain activities."

### **1.3.1. Nature of Interest**

According to super nature of an interest can be understood keeping in view the fact that nature and nurture and many other intervening variables are involved in the development of interest. Warters has quoted the following from Supper, "Interest are the product of interaction between inherited aptitudes and endocrine factors, on the one hand, and opportunity and social evaluation on the other, Some of these things a person does well bring him the satisfaction of mastery or the approval of his companions, and result in interests. Some of the things his associates do appeal to him, through identifications, he patterns his actions and his interests after them; if he fits the pattern reasonably will he remains in it, but if not, he must seek another identifications and develop another self concept and interest patterns.

According to Bingham, concentration of attention and persistence are the two important outward manifestations of interest. Thus the important point with regard to the relationship between the interest and the aptitude is that Bingham considers interests as a "vital constituents of aptitudes". Interest has been regarded as an aid to attention. Some

psychologists are of the view that there is no attention without sufficient interests. According to William McDougall, "a man is said to be interested in a certain object or topic, even though he may be thinking of other things. Being interested is, then, an enduring condition of the subject." Interest is latent attention, and attention is interest in action.

<b>1.3.2 Syllabus of Mathematics for Class IX of SEBA</b>	<b>Total Marks 100</b>
❖ Number System	(8 Marks)
❖ Polynomials	(10 Marks)
❖ Coordinate Geometry	(6 Marks)
❖ Linear Equation in Two Variable	(6 Marks)
❖ Introduction to Euclid's Geometry	(8 Marks)
❖ Lines and Angle	(6 Marks)
❖ Triangle	(8 Marks)
❖ Quadrilaterals	(6 Marks)
❖ Area of Parallelograms and Triangles	(6 Marks)
❖ Circles	(6 Marks)
❖ Constructions	(6 Marks)
❖ Heron's Formula	(6 Marks)
❖ Surface Areas and Volumes	(6 Marks)
❖ Statistics	(10 Marks)
❖ Probability	(10 Marks)

#### 1.4 Significance of the Study

Present age is the age of science and information, whatever, technology and physical progress being made, shall be correspondent to the role of mathematics. Kothari commission has said, "Mathematics should be made a compulsory subject for the students of class I to class X, as part of general education."

Mathematics is made compulsory all over the India for its tremendous ability. In North-east of India Mathematics is a compulsory subject in the school curriculum. Both boys and girls must study mathematics whether they like it or not. The aesthetic beauty of mathematics has to be understood by the students of north east for developing greater interest towards the subject. Lots of changes have been made in the syllabus of mathematics subject. Students do face difficulty with the modern concept. At present the teacher trainee are acquainted with moderns' theories of constructivism, concept learning. The uses of such theories are quite helpful in understanding the mathematical problem. An attempt is made here. To look in to the practical knowledge gained by the student theoretically and the manner in which they apply the theoretical knowledge in actual problem situation. So an attempt is made to teach a unit in mathematics and after teaching the students are



assessed to look in to the manner in which they use their knowledge in solving the problems.

### 1.5 Statement of the Problem

The problem under consideration reads as

*"As study on Lack of Interest in Mathematic among the students of class-IX in a Secondary School."*

### 1.6 Objectives

Following are the objectives of the study-

(i) To look into the performance of students in one of the unit in mathematics subject.

(ii) To look in to the liking of the students in mathematics subject.

(iii) To examine the opinion of the students in mathematics subject.

### 1.7 Action hypothesis

The programme of action is highlighted in table-1

**Table-1: Program of Action**

SI. No	Action to be taken	Time period
1	Selection of the topic	20-12-2013
2	Construction of tool a) Preparation of class test question paper. b) Preparation of opinion scale for students. c) Like&dislike of subject of study among the students.	25-03-2014 28-01-2014 28-03-2014
3	Pretest a) First class test conducted. b) Second class test conducted(first class test again repeated) c) Third class test:- (i) Preparation of class test question paper. (ii) Conducted third class test.	27-03-2014 29-03-2014 02-04-2014 04-04-2014
4	Remedial measures. Expert comment on opinion scale.	14-02-2014
5	Post test.	10-04-2014
6	Data Collection.	10-04-2014
7	Analysis.	May 2014
8	Report writing.	June-July 2014

### 1.8 Method

The method adopted for the present study is a descriptive survey method.

## 1.9 Population

The population for the present study comprised of 32 students in class-IX.

## 1.10 Sample

The present study is based on 21 out of 32 members of students. The underlying reason is that non attendance of 11 members of students.

## 1.11 Tools

Following tools were prepared for the purpose of data collection.

- i) a) Class test question paper framed by the investigator (Appendix A).
- b) Modified class test question paper framed by the investigator (Appendix B)
- ii) Opinion scale for students (Appendix C).
- iii) Likes and dislikes format (Appendix D).

## 1.12 Pretest

Opinion scale constructed by the investigator is subject to scrutiny by an expert.

## 1.13 Remedial measures

Expert comment on opinion scale being obtained and it is found that all the items were accepted.

## 1.14 Post test

At this stage the tools constructed are used for final data collection.

## 1.15 Procedure of data collection

Necessary permission is sought from the headmaster of the school and only after that data being collected.

Analysis of data

## 2.0 General information about the school:

The school under investigation is a vernacular co- educational high school. SEBA syllabus is followed in the school. The total strength of the teacher being 26 and the total number of students being 560 during 2014. There are 16 number of classroom. The school is equipped with library, computer laboratory and art and music facility are available. The school building is 'L' shaped, housed in Assam type. There is a open space in the front of the school which is sufficient for morning assembly and break time play. The school is surrounded with boundary wall and school has green environment. The classes are from I to X and the school has 7 number of periods. There are five compulsory subjects in the high school and mathematics is one of the subjects.

## 2.1 The performance of students in a unit in mathematics subject

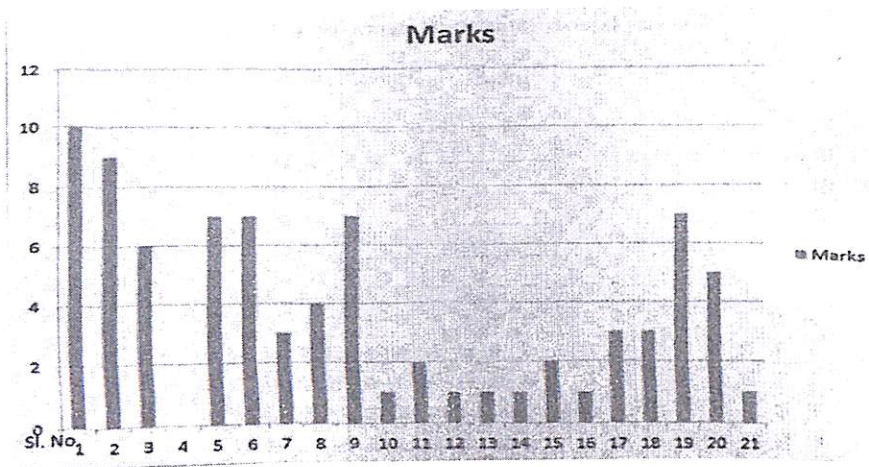
A particular unit, polynomials in mathematics subject is selected and the students are assessed only on this.

### 2.1.0 Performance of students in first class test

For a particular unit (polynomial) in mathematics four questions (Total 10 marks) were set up consisting of two questions - 1 mark each and another two questions - 4 marks each. Time allotted happened to be 20 minutes. The sample of first question paper is presented in Appendix - 1. The marks obtained in the first test by 21 numbers of students are shown in table 1.

**Table - 2 : Performance of students in first class test**

Roll No.	Marks
1	10
3	09
4	06
5	00
6	07
7	07
8	03
12	04
14	07
15	01
17	02
18	01
19	01
20	01
21	02
23	01
24	03
27	03
28	07
29	05
32	01



**Graph - 1 : Performance of students in first class test**

From the table - 1 it shows that only one student scored full marks and the lowest mark being 0 scored by a single student. Majority (62%) of the students scored below 50% marks.

This was followed by teaching on the next day. On this day first test question were solved fully on the black board.

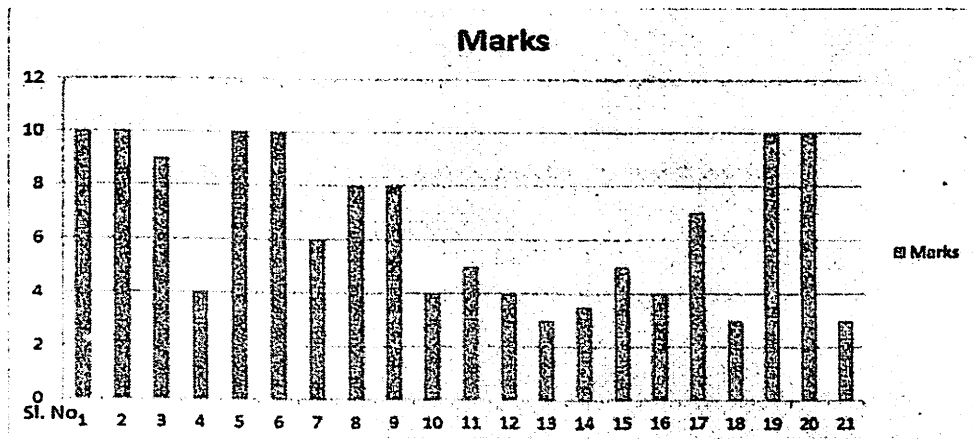
**2.1.1 Performance of students in second class test**

On second day again the same test was repeated in same manner and the marks obtained by the students are shown in table - 2.

**Table - 3 : Performance of students in second class test**

Roll No.	Marks
1	10
3	10
4	09
5	04
6	10
7	10
8	06
12	08
14	08

15	04
17	05
18	04
19	03
20	03.5
21	05
23	04
24	07
27	03
28	10
29	10
32	03



**Graph - 2 : Performance of students in second class test**

From the table it is shown that 6 out of 21 students scored full marks and the mark scored happened to be 3 (4 number of students). Majority (57%) students' score lie between 5 to 10 marks. Thus it may be said that there is improvement in performance after teaching for one day and when the same question paper is repeated.

After this, regular teaching was carried out for around a week. During this period all the lessons on this unit were taught.

### **2.1.2 Performance of students in third class test**

After completion, third test was conducted. In this test the full marks happened to

be 10 and the examination time allotted being 20 minutes. The question paper was prepared covering the whole unit.

The question paper consisted of -

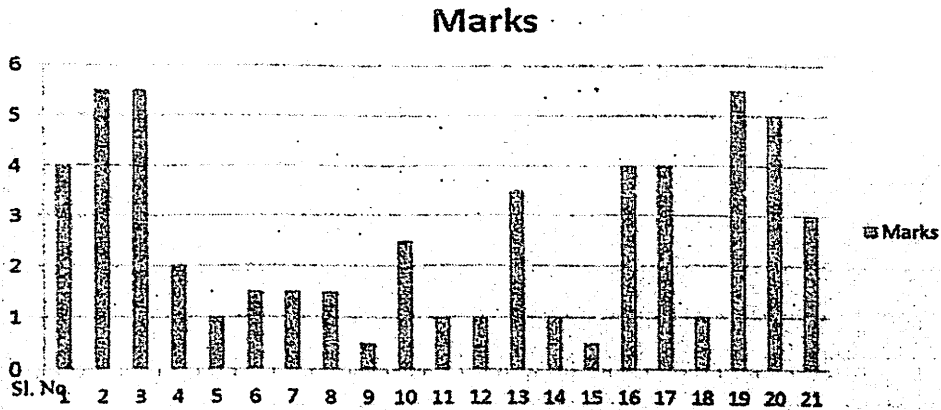
No. of question	Marks of each question	Total
04	0.5	2
04	02	8
		Total(Full Marks) 10

The performance of the students in the third class test for the same 21 number of students is shown in table - 4.

**Table - 4 : Performance of the students in third class test**

Roll No.	Marks
1	04
3	5.5
4	5.5
5	2
6	1
7	1.5
8	1.5
12	1.5
14	0.5
15	2.5
17	1
18	1
19	3.5
20	1
21	0.5
23	4
24	4
27	1
28	5.5
29	5
32	3

**Graph - 3 : Performance of the students in third class test**



The table reveals that 5.5 is the highest marks scored by 3 students. And majority (76%) scored below 50% marks. The highest and lowest score being 5.5 and 0.5 marks.

In this test the performance of majority of the students declined to a very extent the reason being increasing lesson and number of question were doubled of increasing difficulty. It is surprising to note that a student scoring full marks in the first two tests scored below 50% in the third test. This is to note that a student scoring 0 in the first test scored 4 marks in the second class test and in the third class test the marks obtained happen to be 2. And overall performance in all the three class tests shows that 6 out of 21 students have an increasing tendency of improvement.

## **2.2 Preference of subjects according to the students:**

As per the response obtained from the students it is found that the subject English is liked by majority (38%) of the student. This is followed by social science 19% of the students. There is mixture of subjects like English - General Mathematics, English - General Science, English - Hindi, Bengali - Social Science and General Science - General Mathematics. Thus it is clear from the data that English is most preferred by maximum number of students as shown in table-5.

**Table - 5 : Subject most preferred by the students**

Subject	No. of boys who like the subject	No. of girls who like the subject	Total number
Bengali (a)	0	0	0
English (b)	0	8	8
Assamese (c)	1	0	1
Hindi (d)	0	0	0
Social science (e)	2	2	4
General Science (f)	1	1	2
Mathematics (g)	0	1	1
English – General Mathematics	0	1	1
English – General science	1	0	1
English – Hindi	0	1	1
Bengali- Social science	1	0	1
General science – Mathematics	1	0	1

### 2.3 Opinion of students towards mathematics subject

The opinion scale of the items shows that there is a moderate (of 0.5104) correlation between positive and negative items.

**Table -6 : Correlation between positive and negative items**

**Raw score**

SI No.	Positive items	Negative items
1	36	37
2	38	40
3	38	40
4	19	14
5	32	13
6	28	16
7	36	31
8	20	16



9	36	13
10	31	9
11	37	15
12	35	15
13	35	16
14	37	40
15	32	34
16	37	40
17	26	17
18	20	26
19	25	18
20	25	8
21	35	37

The correlation between positive and negative items ( $\rho$ ) = 0.5104  
Mean difference of boys and girls is shown in the table - 7, it is found that the mean score of the boys is greater than that of girls.

**Table - 7 : Mean differences between boys and girls.**

Particulars	Boys	Girls
Mean	57.71	53.5
Standard Deviation ( $\sigma$ )	22.627	16.431

That is to say boys have better opinion on Mathematics than that of girls.  
Over all opinion of both boys and girls is shown there under.  
Mean = 54.9

Standard Deviation ( $\sigma$ ) = 16.022

The highest score for 20 items being 80 and lowest score is 0. The obtained overall mean scores happened to be 54.9 which are higher. Thus overall opinion of both boys and girls towards mathematics is found to be favourable.

## 2.4 Finding

- 1) The school under investigation is vernacular co- education high school.
- 2) The performance of students in a unit ( polynomials ) in mathematics conducted in three different class tests reveals -
  - a) Majority (62%) of the students scored below 50% marks.
  - b) Improvement in performance is observed after teaching for one day and

when the same question paper is repeated.

c) In the third test the question paper was modified covering the whole unit and it was found that the performance of majority (76%) scored below 50% marks.

- 3) The overall performance in the third class tests shows that 6 out of 21 students have an increasing tendency of improvement.
- 4) English is most preferred by maximum number of students. Only three number of students like mathematics.
- 5) The opinion scale constructed shows that the correlation between positive and negative items happen to be 0.5104. The mean score of the boys is found to be greater than that of girls in mathematics.
- 6) The overall mean score obtain in opinion scale found to be 54.9; that is to say, both boys and girls have favourable opinion towards mathematics.

### **Suggestion and Conclusion**

#### **3.0 Suggestion**

The application, effectiveness, simplicity, complexity, logical derivation, precision and correctness are some of the essential characteristics of the subject mathematics. The main reason for studying mathematics at secondary level is that it is interesting and enjoyable. Individuals like its challenges, its clarity, and the fact. The solution of an problem has an excitement and a satisfaction.

Considering the simplicity and complexity of mathematics it depends upon the individual abilities of how they perceive the subject. Development of interest takes place out of curiosity, energy occurs due to changing age, increase task compulsory requirement for more effort and lack of interest attractiveness of academic context. Compare to increasing academic interest. During adolescence period the influence the parents exert on causes increasing per influences. Teacher attitude and enthusiasm are related to students' interest development. There is a positive relationship between teachers' verbal and non verbal messages about the value of learning material, on the one hand and the students' interest and interest motivation, on the other hand.

The performance of students in mathematics is though not very appreciating because, majority of the students found to be lacking basic foundation. Majority of the students commit silly mistakes and their conception is found to be not formed as expected. Even after teaching and solving the problems majority of them could not attained high or full marks. This shows that the lack in practice, unable form interest, and they are less curious. In exploring new things when the teacher moves from simple to complex things majority of them are unable to grasp the matter. Drill and practice are very much essential. In addition the teachers' method of teaching has to be taken into account so that majority of

the students' are attracted towards the subject mathematics. The need of the teacher are the use of appropriate teaching materials like audio visual aids through which students' attraction and interest can be increased to a very great extent.

### **3.1 Recommendation**

Following recommendation are suggested for the presence study.

- 1) Teaching learning process in mathematics must carry out by applying new psychological technique.
- 2) The need of the students must be released by the teacher for effective instructional process.
- 3) The study through a light on the need for concept formation in mathematics for better understanding.
- 4) The interest of the students has to be created sustained and necessary focus on the abilities of the students has to be paid.
- 5) The fear or dislike for mathematics subject has to be minimized by using audio visual appliances.

### **3.2 Conclusion**

Mathematics involves thinking logically and reasonably so as to understand how formulae are derived and their applications. Nervousness and fear are commonly seen among the students. Mathematics instruction is a training of logical thinking. It is a means of solving many problems.

Importance of mathematics is understood under four broad functions - utilitarian, cultural, social and personal functions. It is expected that the 21st century mathematics educators/teachers should be readily acquainted with the modern day technique of teaching mathematics in our school and possibly facilitate their teaching pedagogies with the aid of modern mathematics laboratories to be able to achieve the objectives of the mathematics education.

Thus in conclusion it may be said that for generating and sustaining interest among students there is a need for use of appropriate mathematical tools and in addition self drill and practice.

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