

STUDENTS ATTITUDE TOWARDS MATHEMATICS AT GRADE XI

A
THESIS
BY
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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF IN MATHEMATICS EDUCATION

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Letter of Certificate

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Letter of Approval

This thesis entitled “**Students Attitude towards Mathematics at Grade XI**”
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Master’s Degree in Education has been approved.

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Recommendation for Acceptance

This is to certify that Mr. Sanjay Kumar Pandit has completed his M. Ed. Thesis entitled “**Students Attitude towards Mathematics at Grade XI**” under my supervision during the period prescribed the rules and regulations of Tribhuvan University, Kirtipur, Kathmandu, Nepal. I recommend and forward his thesis to the Department of Mathematics Education to organize final viva-voice.

.....

Mrs. Hom Kumari Adhikari
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Date:

Declaration

This thesis contains no material which has been accepted for the award of other degree in any institution. To the best of knowledge and belief this thesis contains no material previously published by any authors except due acknowledgement has been made.

.....

(Sanjay Kumar Pandit)

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Abstract

This study focused on **Students Attitude towards Mathematics at Grade XI** of Saptari district. This study is based on quantitative method under the survey design. The purpose of this study was to find the Higher secondary level students attitude towards mathematics and the factors affecting student towards mathematics at grade XI. Researcher selected 230 students from 8 community based schools and the schools were selected by systematics sampling method. The data were collected from questionnaire schedule. For the quantitative data 40 statements of questionnaire were used in this study. The collected data were organized, tabulated, analyzed, and interpreted by using the percentage and χ^2 -test to find out the students attitude towards mathematics at grade XI at 0.05 level of significance. The result of this study were that the most of the student had positive attitude towards mathematics at grade XI. But many of the student have facing so many problems such as lack of students' confidence level, mathematical anxiety, lack of guardians qualification, home environment, social culture, social tradition. There were the main factors that affecting higher secondary level student attitude towards mathematics.

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Chapter I

Introduction

Background of the Study

Attitude towards mathematics in ones view, opinion towards mathematics. According to Zan and Martino (2008), an attitude is fundamental concern on learning of mathematics. An attitude can be as positive or negative evaluation of people, objects, events, ideas and activities. It could be concrete, abstract or just about anything in our environment. Attitude can be seen as more or less positive. A positive attitude towards mathematics s reflects a positive emotional disposition in relation to the subject and in similar way negative attitude is towards mathematics relates to a negative emotional disposition.

Attitude towards mathematics is defined as a general emotional disposition towards the school mathematics. This should not be confused with attitude towards the field of mathematics or towards some specific area within mathematics. An attitude development may be influence by a number of factor operating in sides or outside school, by the teacher and by learning environment.

Haan (1961), argues that "the attitude of students and teacher understanding of mathematics as the large number of teacher who desired or fear mathematics has become a factor in children attitude towards the subject."

In the 21st century mathematics is an essential subjects for various field of science and technology, economics, management, business, and many other fields. Most of the guardians wants their children study mathematics and science well. They inspire even compel their children to study these subject. But most of them do not know about various psychological factors, for examples their children's interest, aptitude, attitude, ability and intelligence towards those subject. They are not even capable to find out whether children have got a favorable positive and negative attitude for the study of particular subject or not. As a result, there is large number of students failed in mathematics examination and increase dropout and repeated rate.

Mathematics has a great role in human life. Our daily life and all civilization cannot be imagined without mathematics. It is used in every activity of our society. It is needed for the study of most of the discipline. It is the foundation of all the science. Now a day, mathematics is considered as an important subject called the queen of all

science, key and gate way of all science. It is directly related to cultural, political, social, geographical condition of society. Mathematics develops the ability to think logically and creatively for the proper development. A strong background in a mathematics necessary almost all technical careers in society mathematics has not only been useful in its own right. But it has also enriched this world by helping in development of other field of knowledge. There is not science, no art and no profession where mathematics does not hold as a key position. Mathematics has grown with the development of early civilization and present modern civilization. Due to the change of needs and demand of society the aim of education also change consequently. Mathematics in the 21st century put great emphasis in today's society to meet the rapidly growing need and demands. So mathematics has been given a significant place at all levels of school curriculum every student should study it and gain better achievement in school mathematics. Numerous researches have been carry out to identified the variables that influences the attitude towards mathematics.

The aim of mathematics in grade XI is to develop positive attitude, to apply mathematics in daily life, to develop mathematical knowledge for the further study, to appreciate as a means of communication. To execute the challenging aim of mathematics should be sincere, honestly and co-operative attitude from the side of teacher co-operation in teaching learning activities. The area of mathematics is not bounded but have been adding several new concepts with the evaluation of human society. Now it is being the composition of different branches of mathematical concepts. So, it is most essential to invent about its many disciplines and develop it ahead according to necessary of solving many problems faced by students in present situation.

An attitude is the degree of positive or negative effect associated with psychological objects which may be symbol, phrase, slogan, intuition or idea towards which people can differ with respect to positive or negative of effect (Aichel, D..B.. and Report, E. 1971, P. 194). Hanna (1986) stated that the teacher attitude as well as the understanding of mathematics influences the pupil attitude and pupil achievement.. He says the large number of teacher who dislikes mathematics has become factor in students attitudes towards the subject. The effects of teachers attitude are wide spread. Like the other entire attitude, dislike of mathematics is readily communicated to children either directly or unconsciously.

Mathematics plays an important role in the development of the individual as well as nation. Mathematics is the compulsory subject up to the Nine and Ten. Then higher secondary level selected the Mathematics subject. Attitude is one of the psychological factors to determine our patterns of life as well as our success and happiness.. There are some factors and situation to create an attitude to particular subject. In effort to study students" attitude towards mathematics Elizabeth Fennema and Julia A.. sherman constructed attitude scale in the early 1970's and later modified, that measures students attitude towards mathematics in the four areas such as attitude towards usefulness of subject matter, personal confidence about the subject matter, perceive of mathematics as male domain and student perception towards mathematics teacher. Here the researches had used this attitude scale to measure higher secondary level students attitude positive mathematics.

In Nepalese context, no wide research about mathematical attitude of the students towards mathematics has been under taken in the student level. Some district level research reports show that many student are afraid of mathematics and more girls than boys have negative attitude towards this subject. It is already felt that a favorable attitude of secondary level students towards mathematics is necessary to course than to learn mathematics. So in this study the researcher try to find the mathematical attitude of secondary level student under different aspect mathematics as a process, attitude about difficulty of learning mathematics and attitude towards place of mathematics in the society.

Hence mathematics which always fastens its speed for further development so in this study stress has been aid on investigating the attitude of grade students of Saptari district towards mathematics.

Statement of the Problem

The problem of this study mainly concern with the attitude of grade XI students towards mathematics. Also the researcher wants to know the influencing factors that affects the attitude of grade XI students towards mathematics and also analyzed the attitude students towards mathematics at grade XI. It seems that the school systems in Saptari district communities are often under resourced. Although the students of Saptari district are interested in mathematics. so most of them are tailented in mathematics, so it is necessary to analyze how far or near

attitudes towards mathematics influential to lead mathematic. so problem of to this study mainly concerned with the answer of following questions.

- What is the students' attitude towards mathematics at grade XI in Saptari district?
- How can we improve the students attitude towards mathematics at grade XI in Saptari district?

Objectives of the Study

The main objective of this study as following:

1. To find the student's attitude towards mathematics at grade XI
2. To analyze the factors affecting student attitude towards mathematics at grade XI

Significance of the Study

Mathematics is very useful and valuable subject of everyone. It should helpful in every peoples daily. That's why everyone should study mathematics and grain good achievement. For the good achievement there should be positive attitude from every aspects towards mathematics. To gain the mathematical knowledge everyone should study in depth. So the mathematics become one of the essential part of school curriculum. Together with compulsory mathematics, optional mathematics also play vital role in everyone's life it is more practical and behavioral then compulsory mathematics. Mainly it should helped in studying higher level for several related fields. Thus this study has following significance.

- This study helps to those students who has fear to study optional mathematics
- This study is helpful for those students who wants to study science and technology as well as mathematics in higher level.
- This study is helpful for rural areas students who doesn't give opportunity to study optional mathematics.
- This study also provides information about why most of the students will be failed in mathematics at public schools.

Delimitation of the Study

This study included following delamination:

- This study was delimited in twelve secondary schools only.
- This study was limited in community based higher secondary school in Saptari district.
- This study was limited in XI students only.
- The design of this study was limited on descriptive survey design.

Definition of the Terms

Some of the terms used in this thesis were defined below:

Attitude: An attitude is a complex affair which cannot be wholly described by any single numerical index. The concept of attitude is used to denote person's inclination feeling, ideas, fear and conviction about mathematics. In this study the totality of the following variable will be considered as attitude, confidence of learning mathematics, usefulness of mathematics, stereotype of mathematics as male domain subject and perception of students towards mathematics contents.

Attitude Scale: An information from that attempts to measure the attitude or belief of an individual is known as attitude scale according to Best and Khan. An attitude scale is a special types of questionnaire designed to produce scores indicating the intensity and direction of person's felling about an object or event. Feeling are measured by their option obtained from interview with them. It is a tool prepared for the purpose of measuring peoples attitude to an issue. It is assigned to provide a valid or accurate measure of an individual's social attitude. In this study attitude scale will be used by researcher to obtain the measure of attitude of students, towards mathematics at grade XI.

Community School: Community school means those school that have obtained approval or permission and receiving regular grant from government of Nepal.

Personal Factors: The factors associate with the students themselves are called personal factors in this study personal factors indicated that the factors that affect student attitude by the cause of themselves. Such as mathematical anxiety,

mathematical achievement score students confidence towards mathematics etc. called personal factors.

School Factors: The factors which are associated with school environment are called school factors. These factors such as physical facility of school, classroom management availability of teaching materials teaching learning process, teacher's performance etc. are called school factors.

Home Factors: The factors associated with home called the factors. In this study home factors is dictated that the factors that affect the student attitude towards mathematics at home such as parents qualification, economic background, gender discrimination etc. are denoting home factors.

Social Factors: The factors that affect the student attitude by society is called social factors. The factors such as: social culture, social discrimination, school tradition, social environment are called social factors that affect the student attitude towards mathematics.

Chapter II

Review of Literature

Literature review is the most important component in research practice in which the previous researches are reviewed and researcher tries to differentiate the distance and similarities of their research. Reviewing related literature help researcher to limit their research question and to clarify and define the researcher in a better position to interpret the significance of their own results. Through studying related research, researchers learn which methodology have proven useful and which methodology have proven useful and which seem less promising. In the literature review there are two types of related literature review they are empirical review and theoretical review.

Empirical Literature

Alam (2016), did research on the topic "Bangladeshi rural secondary school children attitude towards mathematics with the purpose of this study was to check the reliability of using Bangla translated version of Fennema-Sherman mathematics attitude scale in the rural Bangladeshi context and analyze the preliminary data to observe the pattern difference in attitudes to mathematics among different group. The purposive sampling method was used and chosen three secondary schools in rural area from where total of 161 students were chosen for survey. All the students were age group if 15-16 years. Some of them were studying higher math optional course but some were not. Fennema-Sherman mathematics attitude scale was used to find student attitude towards mathematics. To analyze the data SPSS was used. The researcher found that the use of Bangla translated version of Fennema-Sherman attitude scale is reliable in rural Bangladesh although a few subscales have alpha reliability coefficient less than 0.70 from the preliminary data it is found that there is now significant difference in attitude towards mathematics between boys and girls.

Timalsina (2016), studied on the topic, "Achievement and attitude of Tamang students towards mathematics at secondary level". The objectives of this study were to find the attitude of Tamang students towards mathematics at secondary level, to compare attitude and achievement of Tamang students in mathematics at secondary level and to determine the relationship between attitude and achievement of Tamang students towards mathematics. For this study researcher used quantitative and

descriptive survey design. Researcher had selected nine schools from Lalitpur district by using stratified random sampling method on this study researcher had taken the sample school from the three election region of Lalitpur district. Researcher had selected 252 students by using simple random sampling method for sample.

Researcher used questionnaire which is prepared on the basis of George Levie (1971) for data collection. Researcher used Likert five point scale to find attitude of students in mathematics at secondary level and also used means and standard deviation was used for data analysis.

At the end of this study researcher had found Tamang student had positive attitude towards mathematics at secondary level. There is no significance difference between Tamang students; attitude and achievement towards mathematics also researcher found that there is high relationship between Tamang students' attitude and achievement towards mathematics at secondary level.

Pant (2014), studied on the topic "Attitude of student towards optional mathematics". The main objective of this study were the attitude of secondary level students towards optional mathematics as well as their attitude with respect to gender and to identify the influencing factor of the secondary level student attitude towards mathematics. For this propose, researcher used survey method and selected 20 secondary schools as sample out of 110 secondary in Saptari district, where 10 schools from rural area and 10 from urban area. From these school's researcher selected 12 students from each schools by random sampling among 240 students, 140 were boys students and 100 were girls students. Fenneman-Sherman attitude scale was used for testing students' attitude and researcher used questionnaire as tools for data collection. The data were analyzed by using descriptive as well as inferential statistics. The chai square value and mean value were used to determine the secondary level students and t-test was used to compare the attitudes of boys' and girls' attitude.

The result was found that there that there was a positive attitude of secondary level students (both boys' and girls') towards optional mathematics and conclude that there was no significant difference between attitude of boys and girls towards optional mathematics. Also researcher found that the influencing factors were personal factors, school environment, parental environment, economic factors, tuition culture etc.

Langat (2011), studied on the topic "Students attitude and their effect on learning and achievement in Mathematics". The purpose of this study was to determine the effects of the students' attitude towards learning and achievement in mathematics education. This study adopted a descriptive survey design. The study involved in seven sampled public secondary school out of 23 secondary schools in Kiambu country and 140 students were selected of the sample from the target population were the form four students who were about to sit for their Kenya certificate secondary Examinations. The purpose and random sampling were employed in selecting the schools and the students for these schools respectively with the use of students' questionnaire as a method of data collection. The response of students will analyzed by qualitative and quantitative and quantitative approach.

The study found out that most students had a positive attitude towards mathematics and also show that perceptions and beliefs, perceived learning abilities and competencies and previous performance of students in mathematics affected their level of motivation learning to low outcomes.

Waheed, (2011), studied on the topic "Secondary level students" attitude towards mathematics in a selected school of Maldives" the purpose of this study is to find out the students' attitude towards mathematics and find out gender difference in attitude towards mathematics in selected school of Maldives. A survey was conducted to this result. For the survey, total of 200 students were chosen from grade 9 and 10. For finding the students attitudes he prepared questionnaire and administrated it with them. The student answered questions regarding their personal confidence to mathematics and perceived usefulness of mathematics. He had used the Fennema and Sherman attitude scale to find the students attitude. To find significance difference between gender and attitude towards mathematics t-test was conducted. The result show that the attitude students towards mathematics is positive and there is no gender difference in their attitude.

Mahato (2010), conducted the research on the topic "A study an attitude of abroad and non-abroad parents' towards school mathematics. The aim of ths study was overview the attitude of abroad and non-abroad parents towards school mathematics and to compare the achievement of their children in mathematics. The survey was conducted. Researcher selected 12 sample schools and 10 parents were selected from each school in Sirha district. 60 were abroad parents and 60 were non

abroad parents. The weighted mean was used to find out opinion of parents and t-test was used to compare the opinion of abroad and non-abroad parents and achievement of their children. He interpreted and analyzed the data by using weighted mean.

Researcher found the result of study that there was positive attitude of abroad and non-abroad parents' towards school mathematic and the mean score of achievement of non-abroad parents' children were better than the mean score of abroad parents' children.

Khadka (2006) did his research on "The factors influencing the attitudes towards learning mathematics to the children of Ex-kamaiya." The objectives of his research were to find out the school related environmental factors that have influenced learning mathematics, to find out the status of Ex-kamaiyas' children in classroom, to find out the parents care whether their children like or do not like mathematics in Ex-kamaiya camps, to find the attitude of children of Ex-kamaiya towards mathematics, to find out the influencing factors of learning mathematics to the children of Ex-kamaiyas, to find out the pulling (motivating) and pushing (demotivating) factors to learn mathematics in Tharu ethnicity. He had taken children coming from three campus of Ex-kamaiyas at Darath and Sadepani VDCs in Kailali district. Data collection procedure were, interview schedule, observation and opinion ire. The data was analyzed by the description of responses.

Shah (2007), studied "students attitudes towards mathematics at secondary level". The design of study was survey type. He used purposive sampling for sampling and interview schedule, classroom observation from, open ended questions as research tools. He conducted that secondary level Kansi students had positive attitudes towards mathematics.

Research Gap: A brief review of the literature in the field of attitudes revealed that the attitude of student of different district was studied. So student attitude towards mathematics was positive or negative, but Saptari district did not research of student attitude towards mathematics. So I was research the Saptari district in students attitude towards in mathematics grade XI. This study made an attempt to find mathematical attitude of higher secondary level student of Saptari district.

Theoretical Literature

In this review some ones theory of finding after research related to the topics are include Eagly and Chaiken (1993) multicomponent model of attitude. According to this model attitude are influenced by three components. They are cognitive (belief, thoughts, attributes). Affective (feelings, emotions) and Behavioral information (past, events, experience) (G. Maio et al., 2010). When reviewing the related literature on students' attitude towards mathematics, it reveals that several factors play vital role in influencing students attitude. These factors can be categorized into three distinctive group. Firstly, factors associated with the students themselves. Some these factors include students' mathematical achievement score (Kogce et al., 2009) anxiety towards mathematics, students self-efficacy and self-concept, extrinsic motivation (Tahar et al., 2010). And experience at high school (Klein 2004; Basis and Cusworth, 1994). The anxiety and fear may elicit negative attitude towards the subject among students and these general unfavorable perception and attitude about mathematics are passed on to children from adults. Society that treats and views mathematics as an unknown territory made-up of x's and y's society also view mathematics as teacher as sarcastic and important didactic and scornful (Mac nab and Cummine 1986). This views are unconsciously picked by students and they come to mathematics classroom with an already distorted perception and attitude towards learning of mathematics.

Secondary, the factors that are associated with school, teacher and teaching some of these factors that influences attitude are teaching materials, used by teacher, classroom management teachers content knowledge and personality teaching topic with real life enriched examples, other students opinion about mathematics course (Yimaz, Altun and Olkun, 2010) teaching method reinforcement (Papanstasiou, 2000) receiving private tuition (Kogce et al., 2009). Teachers' belief towards mathematics (Cater and Norwood, 1997) and teacher attitude towards mathematics (Ford, 1994, Karp, 1991), developed negative attitude towards mathematics.

In any given year of learning students more time in school then at home. Much influence on a students' learning could in school given this much time spend therein. While at school he/she goes through a planned school program. He/ she is subject to curriculum of mathematics which is administrated in a classroom. Eshiwani (1984) emphasized the need to have adequate resources in school to ensure students effectively learn mathematics. These resources include adequate an appropriate 3-

dimensional models, geo-boards and textbooks among others. Access to these learning resources will determine how students learn mathematics. National schools are well equipped but district school lack basic resources (Twoli, 1986) If the school administrative has not provided sufficient resources, learners, especially girls are likely to resent mathematics as being too involving and too much competitive Russel (1983), also found out that manipulative teaching models are preferred by boys.

Hence mixed classroom boys lord over them while girls, lost out in the use of these apparatus and materials. Use of textbook with sexist orientation has not helped things either (Costello 1991). Textbook written by some authors have examples of boys doing very well. Frequent use of boys name in the end of topic exercises make girls to feel that they are passengers in mathematics learning while boys can rumble and mumble and yet the teacher still wait for him to finish (Twoli, 1986).

Thirdly, factors from the home environment and society also affect students attitude towards mathematics. Factors such as educational background of parents occupation of parents' (Kogce et al., 2009) and parental expectations social belief, social tradition, social culture (Tobias, 1993) play a crucial role in influencing student attitude towards mathematics. By the time of students joins from one he/she will have interacted with his/her parent, who to a great extent, influence his/her perception of learning in school in general and specifically learning mathematics. Orten (1994), attributed the noticeable difference in learning among boys and girls to "society attitude and expectation". He asserted that influences of society and from the environment affect mathematical development of the students. Boys are engaged in more vigorous activities while girls take more passive roles. This scenario is replayed in school and in class while learning. On the other hand, difference in parental expectations and desires and pressure they exert at home on their sons and daughters has been attributed for attainment variations among the sexes (Orten, 1994). Society views mathematics as a male subject as Costello (1991) found out. This especially when parents react and reinforce. Daughter and sons differently. When their children do something mathematically daughter are told "you really tried" meaning nothing much is expected from the female child. But to their sons, they are told "you can do far much better" (Costello 1991) meaning male children are expected to do a lot more in mathematics such comments said by parents consciously or without much thought are registered in sub-conscience of child any may influence how he/she perceives

mathematics. Hence formation of attitudes among students may have been unconsciously registered from parents particularly and from society in general.

Conceptual Framework

A conceptual framework provides a guidance of the study on the basis of theoretical review. Theory and conceptual framework are interrelated. The main propose of this study was to find the higher secondary level students attitude towards mathematics and to find the factors affecting students' attitude towards mathematics at grade XI. In the above theory Tehar et al. (2010) emphasis on the factors, anxiety towards mathematics, student' self-efficacy and self-concept, extrinsic moptivation. In their views, Klain (2004); Bosis and Cusworth (1994) also added the factors experience at high school also influences the students' attitude towards mathematics.

Similarly, Yilmaz Altun and Olkum (2010) emphasis that attitudes are influenced by teaching materials used by teachers, teacher classroom management, teachers content knowledge teacher personality, teaching technique etc. and Kogce et al. (2009) emphasis in the factors as educational background of parents, occupation of parents and Tobiax (1993) added in these factors as parental expectation, social belief, social tradition, social culture etc.

On the basis of these literature researcher draw a following framework.

The conceptual framework is shown in the following figure.

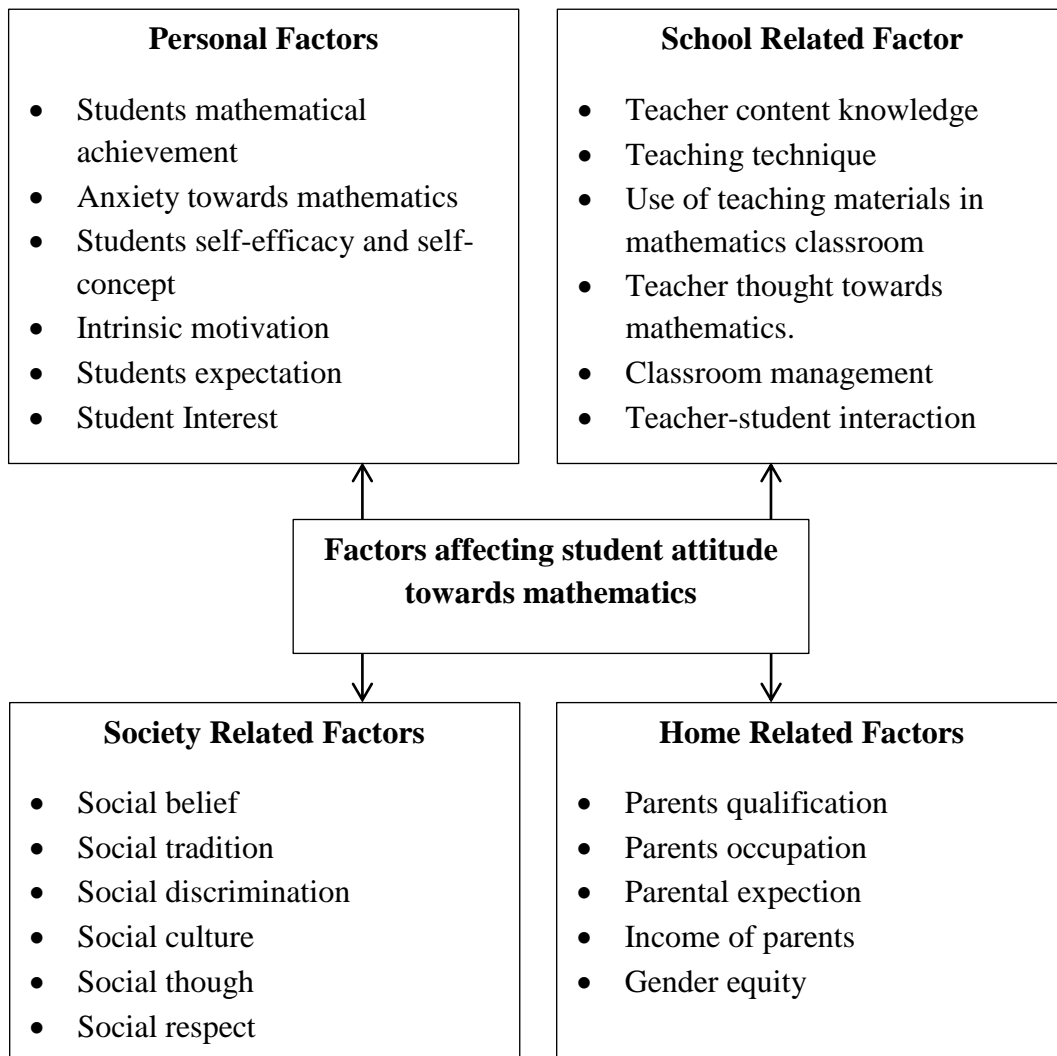


Fig. 2.1: Factors affecting student attitude towards mathematics

The above framework was constructed on the basis of the above mentioned theory. From the above theory it is found that there are some factors associate with personal factors, school related factors, home related and social factors. On the theory home related factors and social factors are described as a one factors. On the theory home related factors and social factors are described as a one factor but researcher described them separately on the basis of his experience. Also researcher added some factors according to his experience under these factors. Under the personal factors theory includes students. Mathematical achievement score, anxiety towards mathematics, students self-efficacy and self-concept, intrinsic motivation and experience at higher secondary school. The second factors in the theory is school related factors. This factors includes classroom management, teaching technique, use of teaching materials in mathematics classroom teacher thought towards mathematics

and teacher-students interaction. The third factor in the framework is home related factor. In this factors research added some factors according to his experience. These factors are parent qualification, parent occupation, parental expectation, income of parents, parental behavior with children and gender equity at home. The last factor mentioned in the theory is social factor. Under this factor researcher added six factors as social belief, social tradition, social discrimination, social culture, social through and social respect to students. These factors play a crucial role in effecting students attitude towards mathematics.

Researcher has prepared 50 statements on the basis of these factors to investigate respondent attitude towards mathematics which will be used for quantitative data and 25 statements will be prepared to investigate how these factors affecting students attitude towards mathematics which will be used for qualitative data.

Chapter III

Methods and Procedures

This chapter shows the design of plan and procedure of the study. It determines the size of sample, method of sampling process, method of techniques data collection, instrument of data collection scoring procedure and procedure of data analysis.

Design of the Study

The design of my study is survey design. The research aims to find out the attitude of higher secondary level student towards mathematics and to analyze the factors affecting students' attitude towards mathematics. The design of this survey type in quantitative method. Quantitative research emerged can be used in response to relational questions of variable within the research. quantitative researcher seek explanations and predictions that will generate to other persons and places. The intent is to establish, confirm, us validate relationships to develop generalizations that contribute to Theory (Leady and Ormrod, 2001, P. 102). Quantitative research begins with a problem statement and involves the formation hypothesis, a literature review, and a quantitative data analysis. Creswell (2003) state, quantitative research 'employ strategies of inquiry such as experimental and surveys, and collect data on predetermined instruments that yield statistical data (p 18). The finding from quantitative research can be predictive, explanatory, and confirming.

Population of the Study

The population of this study was community based grade XI students of Saptari district.

Sample of the Study

Fist of all, the list of the secondary schools was prepared from the database maintained by the district education office. According to the educational statistics available from Dakaneshwori Municipality in Saptari, there were 9 secondary school during the academic year 2077 B.C. Among them 8 are community based school for the sample of this study researcher had chosen only community based schools because the problem was shown in the community based schools. Out of 8 community based higher secondary school. Then 1 had selected 230 students who were study on Grade

XI from the 8 school. These student were selected using simple random sampling method.

Tools of the Data Collection

To conduct the survey, researcher was prepared a set of questionnaire on the basis of conceptual framework and administrated on students at sample schools. The collection of the data for the study was done with the help of questionnaire survey attitude scale 40 statements of scoring. For scoring each item of questionnaire, the Likert five point scale strongly agree, agree, neutral disagree and strongly disagree will be used.

Reliability of the Tools

The research tools used in the present study were "A Modified Fennema - Sherman Mathematics. Attitudes scale observation from and interview Schedule with open ended question. A Modified Fennema- sherman Mathematics Attitudes scale" was taken from Fennema-sherman attitude scale and consult with supervisor about the scale and observation from and open ended question for interview were taken from reviewed literature (2007, Shah) and prepared by the consolation with the experts. Hence reliability of tools were established.

Validity of Tools

For the validation of the instruments, the researcher consulted with the thesis supervisor. The research tools used in this study were questionnaire for quantitative data and interview guideline through the consultation with the expert. The statement were being fixed for the final study. For the interview, the researcher consulted with thesis supervisor.

Data Collection Procedure

Data is the foundation of any research. Therefore, collection of reliable data is very essential part of all types of research. The researcher visited the sample school to collect data by questionnaire for mathematics students. The researcher took permission of principle and mathematics teacher before the distribute questionnaire for students. By the used of questionnaire the researcher took the attitude of all the student of grade XI during their regular mathematics teachers. For the response of students, the researcher distributed questionnaire to the students. After getting

response of all the students, the questionnaire was taken back with thanks. Then collected data was tabulated. Each statement was followed through each aspect by the rank responses in five point Likert-scales. Rank response for each statement through each aspect was strongly agree, agree, neutral disagree and strongly disagree. Each positive statement received the score based on the basis of five point for strongly agree, four point for agree three point for neutral, two point for disagree and one point for strongly disagree for negative statements one point for strongly agree, two point for agree three point for neutral four point for disagree and five point for strongly disagree.

Data Analysis and Procedure

After the completion of data collection percentage and χ^2 - test the researcher had analysed the obtained data by using the statistics. significance of even statement was tested by computing corresponding chi square value and comparing them with tabulated chi-square value 9.488, the value of chi-square at 0.05 level of significance with four degree of freedom of the calculated chi square, value exceeded the tabulated chi- square value, then the statement were considered to have been significant. Again as attitude of student toward mathematics was measured in four areas of students about these four areas were obtained by using modified Fennema - Sherman attitude scale. Finally independency between Saptari district and gender of students regarding attitude were tested by using independency approach of Chi-square test.

Chapter IV

Analysis and Interpretation of the Data

This is a survey research related to find the students towards mathematics at grade XI. This chapter presents the results of statistical analysis of collative data which were collected from the students of grade XI at Saptari district. From the list there are 7 higher secondary school were selected by the method of systematics sampling. Total of 210 student of grade XI were as samples for this study. The questionnaire consists forty statements which were developed and constituted under the guidance of supervisor. Questionnaire was the main tools for the Collection of data in this research.

For scoring each items researcher used the Likert five -point scale which valued fire point for strongly agree, four for agree, three for neutral, two for disagree and one for strongly disagree for positive statements. And one point has strongly agree, two for agree, three fir neutral four for disagree and five for strongly disagree his negative statements. Regarding statistical description measures of data were analyzed by using the statistical package for social sciences (SPSS) program, version 21.0 setting 0.05 level of significance. for analyzing the data, percentage and chi-square test were used. The collected data - were analyzed and interpreted under the followings headings.

Personal Factors

Candidates were asked to respond to 40 statements related to all these factors. The items designed under student's personal factors were (1-10), school related factors were (11-20), items related home were (21-30) and items related to social Variables were (31-40). Attitudes of grade. XI students were se presented by χ^2 value on a five point scale for positive statements, where five point was given for strongly Agree represents the maximum score of scale and one point was given for strongly Disagree represents the minimum score and same thing is done in negative statements. The analysis and interpretation of the data obtained from questionnaire was presented as follows:

The following table consists the students attitudes and it corresponding ne value of the questionnaire related to personal factors affecting attitude towards mathematics

Table 4.1
Responses on the personal factors

Statements	SD %	D %	N %	A %	SA %	χ^2	Decision
1. Mathematics provides us to with knowledge used in daily life.	0.4	3.9	30.9	53.5	11.3	224.96	S
2. Mathematics is an easy, subject	2.6	7.4	14.3	54.3	11.4	183.61	S
3. Mathematics will not be important to me in my life work	5.2	27.4	38.7	25.7	3	108.35	S
4. Mathematics is better than other optional subject.	0.9	3.5	20.4	60.4	14.89	264.65	S
5. I am not good in mathematic	3.5	19.6	25.7	44.3	7	122.83	S
6. Mathematics has been my worst subjects	13	29.1	44.89	12.2	0.9	134.91	S
7. Mathematics is sufficient to select better education for study in higher education	16.1	36.1	28.7	17.8	76	210.58	S
8. I feel boring in the calls class of mathematics	7	31.3	38.6	199.6	3.5	105.87	S
9. I can get good grade in mathematics.	2.6	20.4	60.4	13.5	3.1	260.78	S
10. To take mathematics one should have strong foundation in mathematics.	0	8.7	16.1	64.3	10.9	192.57	S

Critical region region $\chi^2_{\alpha, v} = \chi^2_{0.05, 4} = \leq 9.49$ (non-significant)

The first statement " Mathematics provides us with knowledge we in daily life" is significant with the χ^2 -value 224.96 at 0.05 level of significance. A total of 64.8% students were agreed and 12.9%. Students were neutral about this statement this shows that most of the students were positive with this statement. The second statement a Mathematics an easy subject" is significant with the χ^2 -value 183.61 at 0.05 level of significance. A total of 65.7% student were agree with this statement and 14.3% students were neutral about this statement. This shows that maximum student were positive with this statement. The third statement " Mathematics will not be important to me in my life work is less significant with the χ^2 value 108.35 at 0.05 level of significance. A total of 62.6% of students were disagree with this statement and 38.7% students were neutral about this statement. This shows that maximum number of students were positive about this statement. Fourth statement "Mathematics is better than other optional subjects" is significance with the χ^2 -value 264.65, at 0.05 level of significance. A total of 75.29% Students were agreed with this statement and 20.4% were undecided about this statement. This shows that most of the students were positive with this statement.

The fifth statement "I am not good in mathematics" is highly significance with the χ^2 value 122.83 at 0.05 level of significance. Total of 51.3% students were disagree with this statement and 25.7% were undecided about this statement this shows that maximum number of students were unanswered in this statement on the statement " Mathematics has been my worst subjects is significance with the χ^2 value 134.91 at 0.05 level of significance. Total of 13.1% students were disagree with this statement and 44.8% were neutral with this statements. It means most of students were positive with this statement on the statement "Mathematics is sufficient to select better education for study in higher education" is highly significance with the χ^2 -value 210.58 at 0.05 level of significance. A total of 93.8% of students were agree with this statements and 28.7% were undecided about this statement. It means that most of the students were positive with this statement on the statement "I feel boring in the class of mathematics" is highly significance with χ^2 -value 105.87 at 0.05 level of significance. A total of 38.3% students were disagree with this statement and 38.6% student were undecided about this statement. It occurred that most of the students did not feel easy in mathematics classroom. The statement " I can good grade

in mathematics is highly significance with χ^2 value 260.78 at 0.05 level of significance. A total of 16.6% student were agree with this statement and 60.4% students were neutral about this statement. This shows that most of the students were positive with this statement on the statement "To take mathematic one should have strong foundation in mathematic is highly significance with the value 192.57 at 0.05 level of significance About this statement total of 75.2% were agree with this statements and 16.1% were unanswered about this statements this most of the of the students were positive with this statement.

Hence, from the analysis of the above data, maximum number of students had positive attitude towards positive statements and negative attitude towards negative statements. so, it is concluded that maximum number of student in community schools in Saptari district at grade XI had positive attitude towards mathematics, on the other hand quantitative data showed that students have mathematical anxiety and they feel very poor to themselves due to which they achieve the low achievement in mathematics. So they have to face various problems even they have positive attitude towards mathematics. This they are directly affected by personal factors pointed out in the conceptual frameworks.

School Related Factors

There were 10 statements (11-20) related to the school teacher and teaching the following table consists the students attitude towards school, teacher and teaching and its corresponding χ^2 -value of the questionnaire related to this topic.

Table 4.2
Responses on the school related factors

Statements	SD %	D %	N %	A %	SA %	χ^2	Decision
11. My teacher has been interested in my progress	0.9	14.8	36.5	43.9	3.9	172.13	S
12. It is hard to get math teacher to respect me.	12.2	4.43	33	10.1	0.4	150.30	S

13. My teacher has encouraged me to study more math books.	0	1.7	10.4	40.9	47	136.82	S
14. Teacher hey used teaching material in mathematics classroom.	0.9	9.1	17.8	62.2	10	272.26	S
15. Teacher beat when we get wrong answer for used question.	10.9	32.2	40	13.5	3.5	108.91	S
16. Teacher would not take me seriously if I told them, I am interested in a career in science.	15.2	37.5	34.3	11.3	86.44	108.136	S
17. Teacher has good content knowledge in mathematics	17	12.2	20.9	57	83	218.39	S
18. Teacher give us class work to do in group.	0.9	14.8	36.5	43.9	3.9	172.13	S
19. There is math lab in our school	16.1	36.1	28.7	17.8	1.3	80.996	S
20. Teacher think advanced math is waste of time for me.	10	44.8	36.5	7.4	1.3	172.20	S

Critical region region $\chi^2_{\alpha, v} = \chi^2_{0.05, 4} = \leq 9.49$ (non-significant)

On the statement "my teacher has been interested in my progress" is highly significance with value 172.13 at 0.05 level of significance. A total of 47.8% student were agree with this statement and 36.5% were disagree about this statement. It concluded that most of the student were positive with this statement. On the statement "it is hard to get math teacher to respect me" is highly significance with χ^2 -value 150.30 at 0.05 level of significance. A total of 10.5% student were disagree with this statement and 33% were neutral about this statement. This shows that most of the student were no neither positive nor negative with statement. The statement "My teacher has encourage me to study more mathematics" is highly significance with χ^2 -value 136.82 at level of significance. A total of 87.99% students were agree with this statement and 10.4% students were neutral about this statement. It means that most of the students were positive with this statement. The statement "Teacher has used teaching material in mathematics classroom" is highly significance with χ^2 - value 272.26 at 0.05 level of significance. A total of 72.2% students were agree with this

statement and 17.8 % percent were neutral about this statement on this concluded that maximum number student were positive with this statement on the statement "Teacher beat when we get wrong answer for asked question" is highly to significance with χ^2 -value 108.91% at 0.05 level of significance. A total of 17.1% students were disagree with this statement and 40.8%. students were neutral for this statement. The show that most of the students were positive with this statement. The statement "Teacher would not take me seriously if I told them, I am interested in a career in science significant with χ^2 -value 108.136 at 0.05 level of significance. A total of 45.6% students were a disagree with this statement ant 34.3% were neither agree nor disagree with this statement. This shows that maximum students were positive with statement.

The statement "there is a math lab in a school" is significance with χ^2 -value 218.39 at door level of significance. A total of 140% of student were agree with this statement and 20.9% student were neutral with this statement. This show that maximum school has not math lab. The statement "Teacher think advance with will be waste of time for me" is highly significance with χ^2 -value 150.30 at 0.05 level of significance. Total of 56.5% students were disagree with this statement and 33% were unanswered for this student. This show that maximum students were positive with the statement.

Hence from the analysis of the data, majority of the students had positive attitudes towards positive statements and negative towards negative statements. So, it is concluded that maximum number of the students of XI had positive attitude towards mathematics. But there are various problems arises in the school which affected students' attitude towards mathematics.

Home Related Factors

There were ten statement (21-30) related to home environment. The following table consists the students responses to wards home environment and its corresponding χ^2 -value of the questionnaire.

Table 4.3
Responses on the home related factors

Statements	SD %	D %	N %	A %	SA %	χ^2	Decision
21. Guardians have positive attitude towards you while selecting math	2.2	14.8	23.9	53.9	5.2	198.83	S
22. Guardians should help you to study at home	0.9	5.2	12.2	45.7	36.1	176.69	S
23. Economic background affecting while studying math	0.9	4.8	2.5	65.6	3.5	213.91	S
24. Guardians play a vital role for learning mathematics	0.4	1.7	14.8	68.3	14.8	287.47	S
25. Guardians does not provide sufficient material for studying math at home.	10	26.1	39.6	19.5	4.8	86.44	S
26. My parents did not encourage for selecting optional mathematics.	15.2	37.5	34.3	11.3	1.4	108.136	S
27. I use internet for learning mathematics at home	20	36.1	33.4	9.6	0.9	105.26	S
28. I have no more time for studying math at home.	4.8	3.9	40.4	17.8	3.1	130.52	S
29. Family background affect white choosing the math	3.5	4.8	13	72.6	6.1	293.13	S
30. My parents help me for solving math problems of home	1.3	6.1	20	41.7	30.9	130.39	S

Critical region region $\chi^2_{\alpha, v} = \chi^2_{0.05, 4} = \leq 9.49$ (non-significant)

On the statement "Guardian have positive attitude towards you while selecting mathematics" is highly significance with χ^2 - value 198.83 at 0.05 level of significance. A total of 59.1% students were agree with statement and 13.9% were neutral about the is statement. This show that most of the student were positive with

this statement on the statement "Guardians should help you to study at home" is highly significance with a χ^2 -value 179.69 at o. of level of significance. A total of 81.8% student were agree with this statement and 12.2% were neutral with this statement. This shows that most of the students were positive with this statement. On the statement "Economic background affecting while studying mathematics" is highly significance with χ^2 -value 213.91 at our level of significance. A total of 60.1% students were agree with this statement and not were unanswered for this statement. This shows hat maximum number of students were positive with this statement on the statement " Guardian play a vital role for learning mathematics" is highly significance with χ^2 -value 287.47 at 0.05 level of significance. A total of 83.1% students were agree with in statement and 14.8% students were undecided about this statement. This shows that most of the student were positive with this statement.

The statement to Guardians does not provide sufficient materials for studying math at home? Is highly significance with χ^2 - value 86.44 at 0.05 level of significance. A total of 24.3 % students were disagree and 39.6% student were undecided this statement. This shows that maximum students were positive with this statement the statement i my parents do not encourage for selecting optional mathematics" is highly significance with χ^2 -value 108.13 at 0.05 level of significance. A total of 52.7% students were disagree with this statement and 34.3% student had undecided this statement. This shows that maximum student were positive with student. The statement "I use internet for Learning mathematics at home" is highly significance with χ^2 -value 105.26 at 0.05 level of significance. out of hundred only 10.5% students were agreed with this statement and 33.4%, students were unanswered for this statement this shows that most of the student did not use internet to learn mathematics at home. The statement "g have no more time for studying math at home" is highly significance with χ^2 -value 130.52 at 0.05 level of significance & A total of 38.7% student were disagree with this statement and 40.4% were unanswered with this statement. This shows that most of the student were neither positive nor negative with this statements The statement family background affect while choosing the mathematics" is highly significance with χ^2 -value 293013 at 0.05 level of significance. A total of 78.7% students were agreed with this statement and 13% were neutral for this statement. This show that most of the students were positive with this

statement. The statement "My parents help me solving mathematical problem" is highly significance with χ^2 -value 130.39 at 0.05 level of significance. A total of 72:6% students were agree with the statement and 20% were neutral with this statement. Hence most of the student were positive with this statement.

Hence, in many of the societies researcher found some gender biasness. some family doesn't send their daughter to school for four days when they became in period. Also they not allowed to study at home for four days. It is also found that boys are free at home and they have enough time to study at house where as girls should help household work first and after the completion of the work they go for study. Thus it is found that boys have positive attitude than girls. Thus parents are responsible in students' progress Thus they need to do equal behaviour to their student.

As a hold from above data analysis majority of the students had positive attitude towards positive statements and negative attitude towards negative statements, so, it is concluded that majority of the students of Community school at grade XI in Saptari district had positive attitude towards mathematics, on the other hand, from quantative data it can be concluded that many of the students have to face various problems during their study time so they are unable to show good performance in examination even they want.

Social Factors

There were ten statements (31-40) related to students' response the following table consists the towards social variables. The following table consists the students responses towards social variables.

Table 4.4
Responses on the social factor

Statements	SD %	D %	N %	A %	SA %	χ^2	Decision
31. It is hard to believe girls could be	7.1	39.1	40.9	10.4	2.2	157.52	S

genius in mathematics.							
32. The selection of mathematics subject makes a smart and distinct to themselves infect of their friend.	1.3	3.9	8.7	53	33	229.78	S
33. Mathematics is male domain subject.	10	44.8	36.5	7.4	1.3	172.20	S
34. Studying math o just as good for girls as for boys	0.4	3	16.1	55.3	25.2	224.61	S
35. Social environment affects the learning mathematics	0.4	1.7	14.8	68.3	14.8	287.47	S
36. Boys are not naturally better than girls in mathematics	5.7	47.4	38.7	6.5	1.7	209.39	S
37. The society members respect you when you get good grade in a mathematic	0	3.9	12.2	59.6	24.3	166.00	S
38. Mathematics is usefulness in society	0.8	3.5	20	68.3	7.4	249.69	S
39. Girls can do just as well as Boys in mathematics.	0.5	2.6	6.1	71.7	19.1	290.31	S
40. When girls have to solve math problems they asks for boy.	1.3	60.4	47.4	15.2	5.7	165.30	S

Critical region region $\chi^2_{\alpha, v} = \chi^2_{0.05, 4} = \leq 9.49$ (non-significant)

The statement "it is hard to believe girls could be genius in mathematics j highly significance with χ^2 -value 157.52 at 0.05 level of significance. A total of 12.6% students were disagree with this statement and 40.9% were unanswered for this statement. This shows that most of the students were positive with the statement. The statement "the selecting of mathematics makes a smart end and distinct to themselves infect of their friend" is highly significance with χ^2 - value 229.78 at 0.05 level of significance. A total of 69.1% students were agree with this statement and 8.7% student were neutral with this statement. This shows that most of the students were positive with this statement. The statement "Mathematics is male domain subject" is

highly significance with χ^2 -value 172 at 0.05 level of significance. The total of 54.8% student were disagree with this statement and 36.5% were undecided for this statement. This concluded that more than 5% student were positive with this statement. The statement "studying mathematics is just as good for girls as for boy" is highly significance with χ^2 -value 224.61 at 0.05 level of significance. A total of 80.5% student were agree with this statement and 16.1% student were unanswered for this statement. Hence we concluded that most of the students were positive with this statement.

The statement social environment affect learning mathematics is highly significance with χ^2 -value 285.47 at 0.05 level of significance. The total of 83.4% students were agreed with this statement and 14.8% were neutral with this statement. This shows that most of the students had positive attitude with this statement. The statement "a boys are not naturally better than girls in mathematics" is highly significance with χ^2 -value 209.39 at 0.05 level of significance. The total of 53.1% student were disagree with this statement and 38.7% were neutral for this statement. This shows that many majority of student were positive with this statement. The statement "the society member respect you when you get good grade in mathematics" is highly significance with χ^2 -value 166 at our level of significance. A total of 83.9% student were agree with this statement and 12.2%, students were unanswered for this statement. This shows that majority of the students were positive with the statement. The statement "mathematics is usefulness in society" is highly significance with χ^2 -value 249.61 at 0.05 level of significance. A total of 75.7% students were agree with this statement and 20% were neutral with this statement. This majority of the students were positive with this statement, the statement "girls can do just as well as boys in mathematics" is highly significance with χ^2 -value 290.31 at 0.05 level of significance. A total of 90.8% students were agree with this statement and only 6.1% were neutral with this statement. This most of the student were positive with this statement. The statement "when girls have to solve the mathematics problems, they asks the boys for help" is highly significance with χ^2 -value 165.30 at 0.05 level of significance. The total of 31.7% students were disagree with this statement and 47.4% students were neutral about this statement. This shows that many majority of the student were positive with this statement.

Hence, from the analysis of the data, majoring of the students had positive attitude towards positive statement and negative attitude towards negative statement. So, it is concluded that majority of the students of community Schools of Saptari district at grade XI had positive attitude towards mathematics also χ^2 - value of each statement is significant, all components taken for survey were highly significant. It shows that had most of the students had positive attitude towards mathematics. Hence, researcher concluded that there are so many factor arises in front of student and teacher in secondary level this these factors affects the student attitude towards mathematics.

Chapter V

Summary, Findings, Conclusion, and Recommendations

This chapter is basically concerned in deriving some findings and conclusions from the discussion of the previous Chapter. Besides findings and Conclusions, it has some recommendations which would be useful for further studies and educational implications.

Summary and Findings of the Study

Mathematics is the most useful subject in our daily life. so it is taught at every level of our formal education. But most of the students Suits in the subject of \hat{u} due to lack of qualified teacher, lack of math lab, access of internet, lack of trained teacher, lack of teaching material, due to backward society due to lack of education guardians all these facts becomes cause of low achievement in grade XI examination, so that researcher had tried to study with purpose to determine the factors that affect students attitude towards mathematics at Saptari district,

For this study 230 students from 8 Community based schools of Saptari district were selected by the method of systematic sampling in first phase and thirty student were selected by purposive sampling in second phase. In the first phase researcher set the closed ended questions with students to and affecting factors that effects on student attitudes towards mathematics for quantitative part researcher had used " Likert Attitude scale" for scoring the obtained data.

For survey researcher had prepared a questionnaire contains 40 items. The questionnaire is designed as 5 point Likert's scale. In questionnaire 15 statements were negative and other 25 statements were positive the these statements were categorized into four categories according to conceptual framework. In each categories 10 statements were included. The chi-square test and percentage of responses for the statement was used to find the attitude of student towards mathematics at grade XI and open ended questionnaire were asked to find affecting factors is students attitude towards mathematics. The Collected data were analyzed following my major findings of the study.

- The majority of the students have positive attitude towards mathematics at grade XI.
- There were positive attitude of higher secondary level student towards mathematics in Saptari district.
- School environment, classroom management, parental involvement student participation, personal, economic and tuition culture, motivating, grace mark system were the factors that influencing the attitude of higher secondary level students towards mathematics
- Higher secondary level students were confident in learning mathematics regardless of their socio-economic status.
- Higher secondary level student were able to know about necessity importance and usefulness of mathematics.

From analysis most of the student feel difficulty in solving mathematical problems and comparing the overall meaning of mathematics and make mistake in solving the problems. Most of the student don't know The importance of mathematics for the further study. They don't know the usefulness of mathematics in our daily life.

Conclusion

This study tries to find out the attitude of grade XI students towards and affecting factors in students attitude towards mathematics. after the analysis and interpretation of the data from primary sources it was found that maximum student had positive attitude towards mathematics at grade XI but they have to facing so many problems due to which they couldn't get good grade in mathematics Except some students, all remaining students had positive attitude towards mathematics. It is also found that student confidence level, their anxiety towards mathematics, lack of guardian qualification, home environment; school environment social variables as social discrimination, social culture is appeared as main affecting factors that affects student attitude towards mathematics.

Thus, this research concluded that government should provide teaching materials to all schools and must give training to teacher and guardian should give more time to their children for practices in home. Also they should interact with mathematics teacher and principle to know student participation in eat classroom

learning. Also Society should change their behaviour towards children and behave equally to all Children even they are dalit.

Recommendations for Further Study

The conclusion of the study cannot be generalized to all areas due to the limitation contained in this study. They after analysing the conclusion and implication of the study the researcher has made the following recommendations or suggestions for further studies.

- The study is done only in Saptare district as a case. For generalization of case. The study similar study should be done in a wider scope and large sample
- In the backward society many people have narrow mind so government should have to lunched the new programs which can help to change their thinking and do equal behaviour to all children.
- It should also be studied in lower and higher level for the same aspect.
- Government and school should provide free coaching and tuition classes for these students with low economic status.
- Parents' participation in school should be made more effective.
- Trainings are provided to all teaches and it should be made more effective.
- Government should provide mathematical lab for every secondary level school. Guardians should provide more time for practice to their children in home.
- Society Should stop the social discrimination and gender bias to all children.
- Government should provide mathematics books for all students in time.

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Appendix A

Sampled schools selected for study by systematic sampling

1. Shree Chandra Model Secondary School, Bode Barsain saptars.
2. Shree Janta Secondary School Khurhuriya, Saptari
3. Galaxy International Collage Rajbirj, Saptari.
4. Shree Kant Chandr Secondary school, Puto, Saptart
5. Shree Shahnwa Laxnpuati, Pokhaniya Secondary School Mahuki Pathargada
Saptari
6. Shree Bhabani Parsad Sakal Parsad Ram Parsad Secondary school Kalyanpur
Saptari
7. Shree Budhilal Bidha Munar Namuna Secondary School Bhagwatpur Badhari
Saptare
8. Shree Janta Secondary School Tarhi Saptari.

Appendix B

Attitude Questionnaire

Dear students,

As a students of Master Degree in Mathematics Education, I am going to conduct a “Students Attitude towards Mathematics at Grade XI” in this study it is a part of the academic requirement for the Master Degree in Education. For this purpose, I distributed 40 statements concerned with attitude please study the statement carefully and give your own opinion by putting tick marks (√) on any one of the following five rating of each statement.

School Name.....

Subject.....

Students Name.....

Class.....

Sex.....

Responses on the personal factors

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Mathematics provides us to with knowledge used in daily life.					
2. Mathematics is an easy, subject					
3. Mathematics will not be important to me in my life work					
4. Mathematics is better than other optional subject.					
5. I am not good in mathematic					

6. Mathematics has been my worst subjects					
7. Mathematics is sufficient to select better education for study in higher education					
8. I feel boring in the calls class of mathematics					
9. I can get good grade in mathematics.					
10. To take mathematics one should have strong foundation in mathematics.					

Responses on the school related factors

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
11. My teacher has been interested in my progress					
12. It is hard to get math teacher to respect me.					
13. My teacher has encouraged me to study more math books.					
14. Teacher hey used teaching material in mathematics classroom.					
15. Teacher beat when we get wrong answer for used question.					

16. Teacher would not take me seriously if I told them, I am interested in a career in science.					
17. Teacher has good content knowledge in mathematics					
18. Teacher give us class work to do in group.					
19. There is math lab in our school					
20. Teacher think advanced math is waste of time for me.					

Responses on the home related factors

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
21. Guardians have positive attitude towards you while selecting math					
22. Guardians should help you to study at home					
23. Economic background affecting while studying math					
24. Guardians play a vital role for learning mathematics					
25. Guardians does not provide sufficient material for studying math at home.					

26. My parents did not encourage for selecting optional mathematics.					
27. I use internet for learning mathematics at home					
28. I have no more time for studying math at home.					
29. Family background affect white choosing the math					
30. My parents help me for solving math problems of home					

Responses on the social factor

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
31. It is hard to believe girls could be genius in mathematics.					
32. The selection of mathematics subject makes a smart and distinct to themselves infect of their friend.					
33. Mathematics is male domain subject.					
34. Studying math o just as good for girls as for boys					
35. Social environment affects the learning mathematics					

36. Boys are not naturally better than girls in mathematics					
37. The society members respect you when you get good grade in a mathematic					
38. Mathematics is usefulness in society					
39. Girls can do just as well as Boys in mathematics.					
40. When girls have to solve math problems they asks for boy.					