Chapter- I

INTRODUCTION

Background of the Study

Mathematics is an integral part of human civilization. The word mathematics came from Greek word whose meaning is “inclined to learn “Learning takes places from womb to grave. It means learning is a continuous process. Each and every child learns forms society, through social contact with home, family and universe. The mathematics, which was created at human needs, is going ahead along with human civilization. Mathematics is necessary in every moment of life. We cannot imagine life without mathematics.

According to Oxford Dictionary, Mathematics is the science of number and space, and also defined as it is a way to settle in the mind a habit of reasoning. Thus the terms mathematics has been interpreted and explained in various ways. It is numerical and calculation part of man’s life and knowledge. It is also defined as the science of abstract form.

Ambrosio (1985) defined, “Ethno-mathematics as the mathematical practiced among cultural groups such as national tribal societies, labor groups, children of a certain age bracket, professional classes and so on. There in word, different cultures have different castes, races. Their culture used own tradition as well as professional mathematics skills, concept, knowledge etc.

In Nepal, there are regionally separated people. Different cultures have their living in different regions and different language also. Such as Muslims, Nepali, Newari, Maithili, Bhojpuri, Magar, Tamang etc. Language differs in each other. When there is diversity in culture, region and ethnicity it directly affects the language and if the language is affected, it creates problem in learning mathematics. So the

language is the more influential factor than different culture, region and ethnicity in learning mathematics. That's why language needs care in order to learn something.

Education has given a great importance in Islamic culture. Muslims have their own educational institutions, like Madarsa and Muktab. Madarsas are pure educational institutions, where teacher teach the future members of society about religion as well as general education. It has its own educational system up to graduate level. There are more than one and half dozen Madarsas in Nepal.Maktab are established in each mosque to disseminate religious education they prepared to the child as an Imam (preacher) or a Maulabi(a teacher).

Hindu

According to Encyclopedia of Religion and Ethics, the name Hindu carries us back to the period of the invasion of the peninsula by the Aryan tribes. Hindu was developed from two ways first is by the adoption of deities, religious myths and cuts derived from the races beyond the Brahmanical pale. A new Hindu penetration started in the far western hills of Nepal around 12^{th}century. This new phase of Hindus comprising Brahmans and probably Thakuri laid roots of an aggressive and forceful Hinduism. Consequently, Hinduism spread all over a short span of time. The Hindu is a multi-ethnic society consisting of large number of large number of diverse ethnic groups of people. The Hindu is found everywhere at all the rice–growing altitude of Nepal.

Nepal was a Hindu country till second people's movement (2062-2063BS).According to the CBS(2068),21551492(81.3%) of the total population are Hindus, of whom4144556(19.23%) are living in Eastern Development Region,7426280(34.45%) are living in Central Development Region, 4221113(19.58%) are living in western Development Region and 3266638(15.15%)

are living in Mid-western Development Region and 2481805(11.51%) are living in Far-western development region.(www.cbs.com.)

Hindu belongs to caste strata system. Hindus worship idols and believe in rein carnation. Hinduism is a large aggregate of beliefs developed in the course of many centuries, There are Temples, Shrines, Stupas and Chaityas scattered all over the country.

Muslim

Muslim of Nepal is a close community. According to Nepalese history, Muslim came to Nepal in 15thcentury for the purpose of trade. The Muslim is religious minority in Nepal. Their standard of living is much lower in comparison to other communities. The education backwardness of this community was recognized and heighted by the Aligarh Muslim University inquiry community in its 1961report.Thecommittee said that this was due to the community neglect of modern education. It also noted that Muslim had a violent prejudice against the present day western education system.

The status of Nepal is a minority group. According to central Bureau of statics CBS(2068), the total population of Muslim in Nepal is 1164255(4.4%),of whom 267564 (22.98%) are living in Eastern Development Region,557842 (47.91%) are living in central Development Region, 220056 (18.90%) are living in Western Development Region, 112834 (9.69%) are living in Mid-western Development Region and 5959 (0.51%) are living in Far-western Development Region.(CBS). They live almost in all the district of Nepal except Saptari. However, maximum of Muslims population of Nepal is concentrated in Terai region.

Statement of the Problem

There are several variables that affect the students' achievement in mathematics at lower Secondary level. This study is mainly intended to find out the factors that affection mathematics achievement of the Hindu and the Muslim student of Grade VIII from public Schools of Saptary district. Therefore, researcher tried to the answer of following questions.

- Does the Mathematic achievement of Hindu culture based students differ from Muslim culture based students?
- What are the factors that affect the mathematics achievement of Hindu culture based students and Muslim culture based students?

Objective of the Study

The main objective of the study is to find out all the factors affecting mathematics achievement of Hindus culture and Muslims culture students at grade Eight. The objectives of the study were as follows:

- To compare the mathematics achievements of Hindu culture based and Muslim culture based students in Saptari district.
- To find the factors that affected the mathematics achievement in mathematics of Hindu culture based and Muslim culture based students.
- To compare the mathematics achievements Urban and Rural area students in Saptari district.

Significance of the Study

Nepal is a country where there is no discrimination with reference to the religious faith. Before 2063B.S. it was a Hindu religion based nation but now Nepal is named as a multi-religious nation. Muslims are religious minority groups of Nepal, which have a distinct religious feature and guidance quite different from Hindu. The constitution of Nepal guarantees that no citizens of Nepal were discriminated based of

religion, color, gender, caste, etc. Like was the research study has also some significance which are as follows:

- This study would inform to both the teachers and parents about the mathematics achievement of Hindu religion based students and Muslims religion based students.
- The study would help the researcher to improve teaching, learning situation while teaching different ethnic group and also help to create appropriate environment of the school, house and society.
- This study would help the school administrator and member of school management committed to run and manage their whole school system smoothly.

Statement of the Research Hypothesis

The hypotheses formulated by the researcher for this study are as follows:

- There is significant difference between mathematics achievements of Hindu religion based student sand Muslim religion based students.

Statistical Hypothesis

The researcher would follow the quantitative technique in research. The statistical hypothesis formulate for this study were as follows:

a) H_0: $\mu_1 = \mu_2$ (Null hypothesis)

   H_1: $\mu_1 = \mu_2$ (Alternative hypothesis)

Where μ_1 and μ_2 are the parametric mean of the mathematics achievement of Hindu religion based and Muslims religion based students.

Delimitation of the Study

Any study can't cover all the fields. Each of them has some limitation. This study also has some limitation. Which are listed as

- This study was limited to only the public schools of Saptary district.
- This study was limited to only Grade VIII student of Saptary district.
- This study was limited to only two religious groups of Hindus culture based and Muslims culture based students.
- This study was included personal factors, environmental factors, and culture factors.
- The study is only for the subject of mathematics.

Definitions of the Operational Terms

The following list comprised definitions expiations of the terms frequently used in the study.

Achievement

Achievement in the study which is defined in terms of the score obtained by the students on achievement test prepared by the researcher.

Hindu Students

Hinduism is a set of religious traditions and belief systems that originated in India. Hindu are the adherents of Hinduism most notable in Nepal and India and there Diaspora. The students which is belongs to Hindu cutler are known as Hindu cutlers students.

Muslim Students

A person who sincerely accepted the Dogma of God, obedient to orders and true believers in Allah is called Muslim.

Parents

Parents, who have begotten of spring or adopted a child, are called parents.

Public School

A public school is a Government aided school which runs along with the help of people. Government of Nepal provides 100%of the salary of the teachers.

Rural School

The school which lies beyond the regio of municipality.

Urban school

The school which lies inside the region of municipality.

Personal Factor

Personal factor are associated with interest of learning motivation, practice of learners and self- confidence.

Environmental Factors

Environmental factors are associated which classroom management, family background, behaviors of teacher in school, relation between students and teacher of the school.

Affecting Factors

The term factor is defined as one of the several things. Eg: Educational factors, economic factors, social factors, cultural factors etc.

Chapter -II

REVIEW OF RELATED LITERATURE

This chapter presents the literature relevant to achievement in mathematics which was conducted by different researchers. In order to review from these literatures the researcher got ideas and guidelines for this research. Researches on mathematics achievement have concentrated the attention of many educationists. They had done the extensive research work in the areas of mathematics achievement. Therefore, study of Mathematics achievement under different variables are conducted some of these are teachers' training,

Gender difference, teaching method, school environment, classroom environment, home environment, with and without using teaching material, different class size, parents' income, parents' education, parents occupation, students gender, urban and rural, ethnic groups and caste etc. therefore, the researcher had decided to study on the topic Factors affecting on mathematics achievement of Hindus culture and Muslims culture students at Lower secondary level''. In this chapter, the researcher attempted to review the research studies and literature in areas of mathematics achievement, which are listed below.

Tiwari (1984), "A Comparative study of boys and girls attitude toward mathematics" Conducted in a sample of 245 students of grade 7 school in the Lalitpur Nagarpanchayat. Showed the boys tendency of learning mathematics was sigrimar school going people of Chhetri, Tharu and Kami communities. The research designed was survey type. She used random sample for the selection of the sample and used achievement test as research tool. She used ANOVA test to analyze the data. And concluded that Chhetri student achieved significantly higher than Tharu and Kami students in district level achievements test of mathematics.

A study by Kareem (1991), on the topic "Developmental implications with special reference to Indian Muslim" using secondary data, including 200 Muslim from 5 districts showed that economic backwardness of Muslims was the cause of their educational backwardness. The positive relationship was found to exist between education and the socio-economic advancement of the area.

Effect of gender difference in mathematics achievement had attracted the attention of many researchers. In many researches, the boys were found better than girls on mathematics achievement test. The First international Association for the Evaluation of educational Achievement (IEA) Mathematics conducted a study in twelve different countries and showed that sex was related to mathematics achievement in almost all countries. The boy's achievement score was higher than girls. CERID (1980) further reported there was a great difference between the achievement of boys and girls.

Subedi (2000), in his study entitled "A Comparative study of achievement in mathematics of primary level students due to teacher's gender in teaching" concluded that the students taught by male teachers had better achievement then those students taught by female in primary level.

Acharya (2001), conducted the study on the topic "A comparative study of antenatal care have" Hindus culture and Muslims culture respondents was not satisfactory. The practice of personal hygiene of Hindu respondents had better practice of antenatal care than that of Muslim.

Khatri (2001), studied" A Comparative study of Achievement in mathematics of primary Level students of Chhetri, Tharu and Kami caste in Surkhet District" The main objective of the study was to compare the mathematics achievement of primary school going people of Chhetri, Tharu and kami communities. The research design

was survey type. She used random sample for the selection of the sample and used achievement test as research tool.

Kunwar (2003), in has master's thesis entitled "Mathematics Achievement of Hybrid and Non-Hybrid students" has major objectives to compare the mathematics achievements of hybrid and non-hybrid students. The researcher adopted sample to hybrod students and random sample of non-hybrid students whereas the sample schools were selected randomly and found that the mean achievement in mathematics of hybrid students was higher than that of hybrid students. The design of the study was quantitative survey. He use achievements test as research tool and t-test to analyze the data. So, it is concluded that there a significant difference in the achievement in mathematics between hybrid and non-hybrid students.

Regmi(2004), studied on "A study of Achievement in Mathematics of Gurung and Kuma students at primary Level". The main objective of the study was to find out the different in mathematics achievement test as research tool and t-test to analyze the data and concluded that mean achievement between Gurung and Kumal students is significantly different. The mean achievement of Gurung and Kumal students speaking mother tongue and non-mother tongue is significantly different.

Shrestha (2004), conducted a research study on the topic" Mathematics Achievement of Gurung and Magar children of Lower Secondary Level". The main objective of the study was to compare the mathematics achievement of Gurung and Magar children. The design to the study was descriptive survey. He used achievement test as research tool and t-test and to analyze the gathered data. The finding of the study was the main percentage of mathematics of Gurung and Magar children are found to 33.31 and 28.24 respectively efficiently higher than girls.

K. P. Ghimire (2007), conducted a study on the topic “Factors Affecting Students Achievement in Mathematics at Lower Secondary Level: A case study of Grade VIII students of Kathmandu District’’ including the students of Public and private schools of Kathmandu valley. From the study he concluded that the students’ achievement in mathematics form public school is poor in comparison to private school, students, achievement in mathematics from educated family is better that who is from uneducated family, peer interaction in mathematics study had an good effect in mathematics achievement, mathematics achievement of male students is better than the female, mathematics level understanding is good in algebra but less in geometry and statistics.

Singh (2010) also reported that boy performance was better in mathematical, and other analysis or problem solving skills, boys do more practices to mathematics skills outside of the school than female. Girls are usually expected to be more accomplished in language and socially oriented skills.

Acharya (2016), Conducted a study on the topic” Factors Affecting Achievement of Tharu students in Mathematics at Lower Secoundar Level “ A case study of Grade VIII Students of Kapilvastu District” including the students of public school of Kapilvastu District From the study he concluded that the students achievements in mathematics from public school . This case study had founded to language is imposing difficulty of Tharu students in learning Mathematics. Tharu communities were backward in economic, education, social, cultural condition and occupational site.

Researcher believes that regularity in school, selection of books, opportunity to education, other so many variables which affect the mathematics

achievement of lower secondary level of Nepal. This study were helped in some extent to understand the of these variables and to remedial action for such an effect. All this above-mentioned literature mostly related with identify to the factor affecting students achievements in mathematics. They nothing about how students perform well achievements in mathematics. They nothing about how a students perform well achievements in mathematics. So, intention of thesis study is to find the reason being why and a child can perform better in mathematics achievements.

Cultural Difference and Cultural Discontinuity Theory

The theoretical discussion is needed for the interaction to the finding of the study. There are many theories about learning and development of children. Here, cultural difference and cultural discontinuity theory is main supportive for learning mathematics to find the factors affecting mathematics achievement. So, here the researcher tried to discuss the theoretical understand of this theory.

In cultural difference and cultural discontinuity theory, Ogbu, (2000) deals with the problems in children`s learning caused by the difference and discontinuity between the cultures of home and culture of school. He says that, those students whose home and school environment doesn`t matched they face more obstacles in learning and they do not have enough attention in their cultures and they have to hard work to achieving outcomes comparison to the children with culture or environment matched children.

He argues that, learning not only as the product of the culture and language differences but it is the relation between the culture and mainstream culture doesn`t favor learning or schooling. The dominant group controls the system in their curriculum and using their language. So, the children who are socially and culturally disadvantaged faced many difficulties in learning.

This research report attempts to describe the relation of Muslim as a marginalized minority cultures and dominant mainstream culture in learning of mathematics.

Ogbu, (2001) divided the cultural differences with feature in three types of minorities groups. He takes these cases from the United States of America. As his study suggests, involuntary minorities face more difference in school learning participation and performance due to vast gap between their cultures and mainstream culture. Involuntary minorities are found as caste like minorities who were brought to culture. Involuntary minorities are found as caste like minorities who were brought to the USA. Another minority group is voluntary minorities are migrants groups. They have problems in the school due to cultural and language difference because they have lack of orientation about how the schooling system works in the USA may create problem for those voluntary minorities. Autonomous minorities do not have the problem of cultural differences and language. Since they have similar cultural and language to minority of America. Who have controlled the education system in the U.S.A.

Involuntary minority, it is too difficult to cross cultural boundaries in social compared to the voluntary minority with the primary cultural difference. Here, the researcher gets two types of cultural differences, primary culture and secondary culture difference of voluntary and involuntary minorities respectively. He elaborates that primary cultural differences may create problem such as inter personal and inter group relations which as real difficulties in academic work. Among them, most important reasons as children with different culture background start schooling assuming different cultural world and human relation in school but they get a vast difference reality in school. Next, lack of necessary concept and skills in their own cultures may obstacles their learning.

Ogbu,(2001) argues that discontinuity is also occurred in the area of language, thought and measurement. It happens mainly due to difference between the teaching and learning strategies in the home, community and the style used in school.

Ogbu(1998), argues that the primary secondary culture discontinuity also cause the difficulties in learning and he argues that the children from disadvantage caste tends to develop copying behavior and attitudes that are different to school culture that affects their learning.

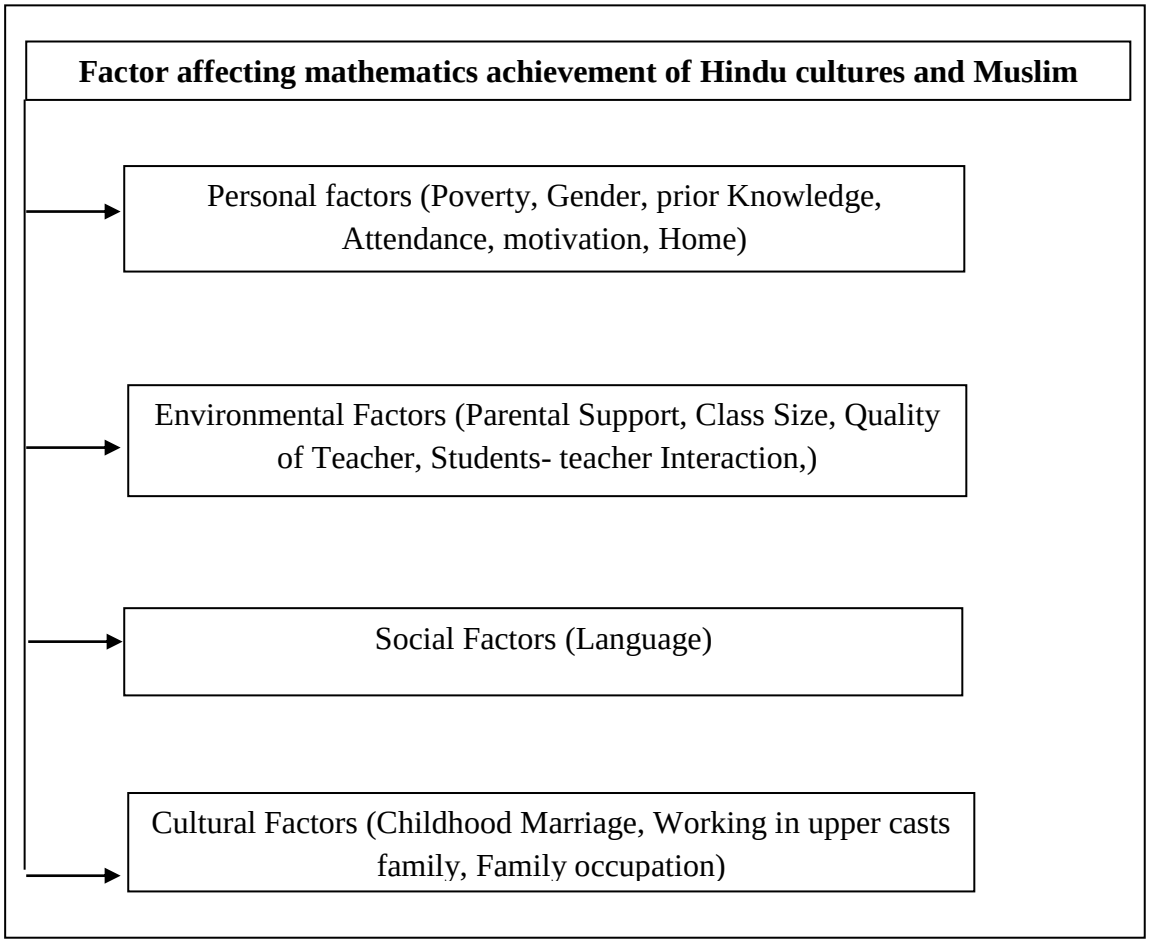
Ogbu(2001), argues that the dominant group gets school system in accordance to their own convenience and benefits. e.g. Their norms, values and aspirations in the curriculum and teaching approaches that suits to them. But dominant group gets on unfamiliar and unrealistic curriculum and their cultural resources do not match with overall education system. So, it is difficulty in learning and cause of failure, dropout. There are always dilemmas that the dominant group does not know or does not want to know about the culture of subordinate group by saying difficult to know because of the multicultural existence of children in school/ society. It is just an escaping trend and nature of dominant group, the higher caste people from including the subordinate group or disadvantage group into the mainstream. Similarly, although the subordinate groups knew the culture of dominant group, they do not need to practice other's culture because their tradition does not let them to act like members of dominant.

Culture is the distinctive patterns of ideas beliefs and norms that characterize the way of life and relation of society or group within society. Finally, difference in teaching styles and learning strategies may be important reasons that affect their learning. Sometimes it is defined as "customs or tradition and considered to be natural and unchangeable".

Here the researcher tried to show cultural discontinuity among thee factors affecting mathematics achievement of Hindus culture and Muslims culture s with the help of cultural difference and cultural discontinuity theory.

Conceptual Framework

This study would relate the factor affecting in the mathematics achievement of Hindu cultures and Muslim cultures students. So, Researchers took the conceptual understanding, which helped researchers in his study. Mathematics achievement influenced by various factor of Hindu cultures and Muslim cultures students. Find out the affecting mathematics achievement of Hindu cultures and Muslim cultures students. Here the researchers above used cultural difference and cultural discontinuity theory for theoretical understanding, it was necessary to make conceptual framework for the study, so researchers took these some relate factors as factor affecting mathematics achievements of Hindus culture and Muslims culture students. These affecting factors that were follows:



Source: - Internet http://www.ebscohost.com.(12th march 2016)

The factors of a person which is internal plays a vital role in learning such as ago of students, and health of students are the personal factors. In mathematics learning prior- knowledge or ability of students is also the main personal factors that influence the achievement of the students.

From the educated family and suitable home environment usually children are aware, conscious and better achiever than non-educated family and non-suitable home environment. Home is the first school and children`s parents are first teacher for transfer of knowledge to the child gained them. There is not only the role of school and teacher in learning process. But, also parent`s education, educational awareness, motivation, gender equality and good opportunity were ways of handling and guiding to suitable home environment. Similarly, economics condition of Muslim is not in the favorable position like others. Muslim family have not own land so they have not fixed occupation and they forced to hard working in the house and field of other caste but that income source is not enough of them. But Muslim community place top priority on use to housing, flooding and clothing than educational necessities, usually Muslim community are very poor in economic condition. And low rate of literacy and school enrollment, high rate of dropout in the early age of schooling and number of unschooled Muslim children indicate that the Muslim children indicate that the Muslim are still deprives to disadvantaged from the mainstream of education. One of the major dimension is home environment together economic condition which determines the mathematics achievement.

The substance that is found in society and plays a vital role in learning process is a social factor. When people births he is single but whatever he learns from society. So the home and society is the first school of the people can be separated from the society as a result he gain much more knowledge form the society as result he gain much more knowledge from society. Social constructivism theory also emphases that everyone learns from the interaction. The language used or spoken in family and community also effects in learning process.

Obviously, school is the mixture of the students of different castes, cultures, tradition, etc. Students came from different place and so had their regional characteristics. According to the math teacher it is was difficult for him to create learning environment in his class due to the different learning of student.

Chapter - III

METHODS AND PROCEDURES

This study describes the design of the plans and procedure of which are to be carried out to achieve objectives of this study were given below such as:

Design of this Study

The study was design to examine the existing status of Grade VIII students' achievement in mathematics and determinants of student's learning outcomes in mathematics. The researcher used survey method in this research. There are two fields of social research which are mainly used, quantitative and qualitative. The researcher had selected the mixed method to fulfill the objectives of the study. The data collected were more verbal than of numerical. The researchers used various ways that are direct observation, interview and School documents to collect information for the study. The study is based on naturalistic (field basis) inquiry.

Population of this Study

Saptari District lies in the Western Development Region of Nepal. There are 91 VDC's According to the educational statistics of Saptari, there are 410 public schools. The total numbers of lower secondary school 99. The total number of grade eight students was 9396 of Saptari District. The total numbers of Hindus were 8401 and the total numbers of Muslim students were 953. The population of this study consisted 100 students of grade eight in ten selected schools in the academic year 2072.

Sample of the Study

The Grade VIII students of Saptari district would the population of the study. 10 public schools from the district would be chose stratified random sampling method for the study. The research selected 10 school of lower secondary level by using

survey sampling from the above select school. Both boys School were be divided into two start 5 urban and 5 ruler area from the above selected schools students would divide into two strata Hindu cultures and Muslim cultures. Then these amount ethnic groups also divided into male and female category form each stratum there were be selected 3 male and 2 female from Hindu and also 3 male and 2 female in each school from Muslim by using Random sampling method. Each of 5/5 students selected form these school considering Hindu cultures and Muslim cultures respectively by using random sampling method. Therefore above select total number of students from each school were 10. The total numbers of students were selected from all school were 100. These all selected 50/50 students were only Hindu cultures and Muslim cultures respectively. These student scores were used to compare the mathematics achievement.

Table No. 1

Name of the School and Number of the Hindu cultures and Muslim cultures Students

S.N.	Name of Schools	Religion	No.of No. Students	Total of students	Location
1	Shree Raj Thako Devi Secondary school Rajbiraj.-3	Hindu	5	10	Urban
		Muslim	5		
2	Shree P.B. Secondary school Rajbiraj- 5	Hindu	5	10	Urban
		Muslim	5		
3	Shree Janta Secondary School Khuruhuriya-6	Hindu	5	10	Urban
		Muslim	5		
4	Shree Kanta Chandra Higher Secondary School pato- 3	Hindu	5	10	Urban
		Muslim	5		

5	Shree S. L. P. Higher Secondary School, Mahuki, Pathargada-5	Hindu	5	10	Urban
		Muslim	5		
6	Shree Ishwari Hiya Surati Jilebi Janata Secondary, School Sarshwar- Dhangadhi-2	Hindu	5	10	Rural
		Muslim	5		
7	Shree Rajaji Higher Secondary School Sisba Belahi- 1	Hindu	5	10	Rural
		Muslim	5		
8	Sarsawati Secondary School Auirahi- 5	Hindu	5	10	Rural
		Muslim	5		
9	Shree Rajobati Secondary School Kushaha,Arnaha-3	Hindu	5	10	Rural
		Muslim	5		
10	Shree Shatrughan Secondary School Negara Bariya- 2	Hindu	5	10	Rural
		Muslim	5		
Total			100	100	

Tools Used in the Study

Tools and instruments were very important for the research. The tools for the student would interview and observation, for the parents would questionnaire. The data were collected from target students, guardians and teacher through question, observation, school documents and interview. The researcher would take the detail information by students, teacher and parents by to effects higher study on mathematics. The main tools for the study were:

School Documents

The information related of gender, attendance and prior knowledge with present achievement and final result of grade VIII were collected from the school

document. Mark-ledger would use to find the mean achievement of mathematics students.

Interview Schedule

Interview is a two-way interaction between researcher and respondents on research topic as in the form of interviewer and interviewer in which interview created situations that attracted the attention of respondents for a enough period of time in asking question and answering the question which interview put his/her understanding and meaning. Interview would be performed based on the survey. which were presented in appendices for this research too. For the interview, group question would be asked with 5/5 students, 5/5 parents, 5 teachers by keeping together and their answer were compared. To go the information researcher would carry out interview along with the School documents from as well as observation. On the basis of objectives the researcher would develop the interview them in observation form. The interview program would be conducted on sample student and parents and the collected data were analyzed in holistic form. So interview schedule would be used to see the variable like home environment, parent occupation, language status and study hour of the student.

Observation Form

The observation schedule prepared the suggestion of supervisor. Here, the researcher included the case students' activities, teachers' activities, participation of case students group and individual, homework, class work. So observation form was used to see the home environment of the students.

Reliability and Validity of the Instrument

For the standardization of the test a pilot test would use to check the validity and reliability of test and each item of the test was subjected to the item analysis before the final test was decide.

The validity of test was established by school teacher and thesis supervisor. Ten students S.L.P. higher secondary school were taken for pilot test. The validity of observation form was established according to the result of observation, which was done for three times as re-observation by using the observation form.

The reliability of parent's questionnaire, student's questionnaire, teacher's questionnaire was approved by thesis supervisor. For the reliability of parent's questionnaire researcher carried out pilot test. Ten parents of S.L.P. higher secondary school were taken. To obtain reliability of the study's, cross-match and triangulation would adopt to analyze the qualitative aspect of the result. This interpretation would be using the framework as the researchers developed and matched with the theory in literature review together.

Procedure of Data Collection

The duration of the field study in Hindu cultures and Muslim cultures community and school was one month. In that time, the researcher went to visit every sample school, he was informed the proposed to all the schools beforehand meet the headmaster, explain in detail the purpose of the visiting and permission and appointment to visit the school on next day. Another day, the investigator went to the class teacher. First of all, report was established with students and purpose of the test tasking would be made clear to them. After that the researcher would collect students score mark-ledger, school document and conducted the interview.

The researcher conducted the interview among the respondent student, a peer group, subject teacher, head teacher and community to conduct focus group

discussion were concerned among the respondent, parent, teacher and head teacher to find the achievement of Hindu cultures based student and Muslim culture based students.

In addition home environment would be observed by using the observation form and interview would be conducted to the Hindu cultures and Muslim cultures students and their corresponding parents to know the parent occupation, language status and study hour.

Data Analysis Procedure

The collected data would be analyzed using statistical devices. The researcher analyzed the collected data by calculating the mean and standard deviation of the scores of the sampled students. The statistical tool of t-test would be used to find out the significant difference between mean score of mathematics achievement on Hindu cultures and Muslim cultures students as well as mathematics achievement with respect to gender. The t-test would be used to compare the mathematics achievement.

Home environment would be analyzed through the result getting from the observation form. The researcher would be established ten columns students name, attendance, gender, religion students participation, teacher name, students participation in group, home works, class works, and observation comments, the observation form. And other factor consider in the second objectives would be analyzed as per the response getting from the Hindu cultures and Muslim cultures students and their parents in the interview. Also, descriptive approach following the cross-triangulation among observation, interview and conceptual understanding would be applied to analyze and interpret the qualitative data. In this study, the data analysis was descriptive in nature. The researcher read all the data to obtain the general sense. At first the collected information was categorized according to category of the

respondents and different themes were given in the text of interview and observation note. Then the researcher began with the detail analysis of the data and to the analysis of the researcher advanced his analysis that represented his research question. The triangular and cross match method were implemented to analyze the collected data to produce proper meaning and conclusion.

Chapter-IV

ANALYSIS AND INTERPRETATION

'Data analysis and interpretation' in research paper is dealt with the help of collected information or data and document acquired form data collection procedure. Data analysis means the surgical operation of the collected data. It specially seeks for the problem and their causal relationship and finally reaches to the conclusion. Both qualitative and quantitative data were used in this process.

This chapter deals with the analysis and interpretation of the collected data from the selected school. Data were acquired from the, students, parents, teachers and school environment with the help of interview and mark-ledger, attendance. The data were organized, tabulated and subjected to statistical analysis. The researcher had compared between the achievement of mathematics in Hindu cultures and Muslim cultures students at Grade VIII students in Saptari district. At the termination of the problem was the main analyzed on the basis of factor affecting the achievement in mathematics of Hindu cultures and Muslim cultures students at Lower secondary level.

The collected information and data analyzed under the following.

Comparison of Mathematics Achievement of Hindu Cultures and Muslim Cultures Students

The objective of the study was to compare the mathematics achievement of Hindu cultures and Muslim cultures s students. For this purpose the researcher analyzed on the basis of mark of 100 students for ten government schools which were selected by purposive method.

The mean, standard deviation and corresponding t-value of the score obtain by students were presented in following table.

Comparison of Mean score of Hindu Cultures and Muslim Cultures

Group compared	**No**	**Mean**	**S.D.**	**t-value**	**Conclusion**
Hindu	50	33.56	11.78	-1.46	Significant
Muslims	50	26.62	9.8		

Significant at 0.05 level (two tail test)

The above table shows that mean scores of Hindus culture and Muslims culture students are 33.56 and 26.62 respectively. That gives the absolute mean difference between two groups in 6.94. That means Hindu students have higher mean score than Muslim students in mathematics. The standard deviation of Hindu students and Muslim students are 11.78 and 9.8 respectively. The obtain /t/ value is -1.46which is less than given table t-value (-1.46) at $\alpha = 0.05$ level of significant. Hence null hypothesis is cannot rejected. Hence, concluded that the mean achievement of Hindu cultures and Muslim cultures students shows significant difference.

Comparison of Mean score of Rural and Urban students

Group compared	No	Mean	S.D.	t-value	Conclusion
Rural	50	27.7	10.54	-2.29	Significant
Urban	50	32.5	10.47		

Significant at 0.05 level (two tail test)

The above table shows the means score of Rural and Urban students are 27.7 and 32.5 respectively. That gives the absolute mean difference between two groups in 4.8. That means urban students have higher mean score than rural students in Mathematics. The standard deviation of urban students and rural students are 32.5 and 27.7 respectively. The obtained /t/ value is-2.29 Which is less than given t-value (-2.29) at $\alpha = 0.05$ level of significant. Hence, Null hypothesis is cannot rejected.

Hence, concluded that the mean achievement of Rural and Urban students shows significant difference.

Factors affecting of students achievement

Personal Factor

The factors of a person which is internal or external plays a vital role in learning such as age of students, interest of students and health of students are the personal factors. In mathematics learning prior knowledge or ability of a student's is also the main personal factors that influence the achievement of the students.

Mathematics education had become a challenging issue as well as also for teacher, students, parents as well as experts. The changing feature of the world mathematics had been changing for the students, institution, and teachers' teaching style different procedure and so on. There were not only multiple factors which were threating and supporting the mathematical achievement, there also has been factors like gender, prior knowledge, motivation, study at home, poverty.

Gender

Recently our Nepali societies practice; there is the belief and sensation that bias the son and daughter due to the gender. As a result of which they get different achievement in mathematics. We get the mean score of boys in mathematics was greater than that of girls from the schools record. Such difference indicated that the boys were accessed than girls in mathematics achievement. The following were some sample of responses obtained from the interview.

"My parents always tell me to study but because ofserious and evenminor household works, there is no anytime for the study at home (Girls students' view of Muslim).

"My parents always say that, there is no need of higher class study. Because, you have to marry while read in class nine/ten" (Girls students view of Hindu).

"Whenever there is household works, I have to stay at home while my brother always goes to school" (Girls students' view).

From these above views which were expressed by girls' students indicated that they were achieved less opportunity and importance from her parents for the study in comparison to boys. I found that the daughter was forced to stay at home for the work whereas the son sent to school. It is an example of conceptual differences parents towards their children with respect to their genders.

Student's view

Students-I *my parents have no good occupation so that we are economically very poor. We have to do the hard work to earn the money to spend in study.*

Students-II Do *you have any problem for taking tuition, coaching classes and buying materials. Student said our family depends upon agriculture and labor which is not satisfying for study.*

Students-III I *don't have a good environment in my home. He is a drunkard and always quarrel in my home. I don't get any time to study while busy in earn and household work.*

Students-IV: *We have a large number of kids in my family and they all disturb my study and I don't get enough time to study due to being busy in taking care of those kids.*

Students-V: *My parents are illiterate. They don't even want me to go to school instead of working. We all are busy in working for earning.*

Students-VI: I *am unable to attend my regular classes because of doing household works, sometime suffers from sickness as well as doing the neighborhood in the seasonal occasion.*

Students-VII: *We have separate rooms, none disturbs our study.*

Students-VIII: But *few students said we have enough money for our study because of father's government.*

Students-IX: *My parents always say that, there is no need of higher class study. Because, you have to marry while read in class nine/ten.*

Students-X*: I was weak in mathematics from lower classes due to which I still have problem in mathematics. As a result I always get poor marks in mathematics*

In conclusion, the researcher found that most of the student, parents are not literate and they do not get good education. Because environment system economic condition and household work. So, they do not get good education.

Prior Knowledge

Regarding the children's learning, Cognitivist believes that sense impression is the primary source of knowledge. It becomes knowledge only when the mind systematizes it. So, intellect is taken as the prime source of knowledge. They further believe that pre- knowledge is a pre- requisite to effective leaning. According to the respondent student, "Math is difficult subject. The nature of math is vague. The problems of math are difficult." On the other hand, the teacher says," The students come from different background and often lack pre-knowledge. So, teaching is difficult." Also, the nature of difficulties faced in the classroom showed that learning math was difficult in this class due to the lack of pre-knowledge.

Prior basic knowledge is also an importance potential determinant of performance of the students. It is one of the key factors that affect the present achievement. The following were some samples of responses of obtain from interview.

"I was weak in mathematics from lower classes due to which I still have problem in mathematics. As a result, I always get poor marks in mathematics" (students view).

From the above view the poor situation of prior knowledge of the student was problem in mathematics learning because of having poor understanding from their previous classes. I found that from these studies, prior knowledge was important thinking which also affects the mathematics achievement of the study.

Attendance

Discontinuity of the attendance or absenteeism influences the mathematics achievement. This is due to by the reducing the sufficient time for learning. As the attendance percentage increased or decreased percentage increased or decreasing absenteeism mathematics achievement untimely increased. There were some sample of responses obtain from interview.

"I'm unable to attain regular classes because of doing household working and sometimes suffering from sickness as well as working of neighborhood mostly in seasonal works" (Students view).

"Students attendance has the main role on their achievement level. Specially, in math irregularity of the attendance disturb regular learning and achieving knowledge" (Math's teacher view).

Above view shows that attendance of students directly affects the mathematics achievement. This is seen clearly from score records. So there, who used to attain the

class regularly seemed to have better score in mathematics than that of irregular attendance.

Motivation

Motivation is another factor which plays important role in the learning of the children. According to the respondent's guardian, they need motivation to encourage the Muslim student for study. In the school, there are not special program for Muslim students. Free should be discounted for Muslim students in every program conducted in the school such as field study.

Motivation is one of the factors which affects achievement of the learning students by self-internalization. Students can motivate to learn by teachers. Students relationship, encouraging environment of the classroom as well as school overall environment and integrated relationship between students guidance and teacher, schools administration and its strategy, rules and regulation and parents behavior etc. are also the motivating factors.

"Teachers come in our class and then solve the problem on the board without encouraging us, so we feel very bored'' (Students' view).

"Our teachers gives examples of other previous student who were good in class to encourage us" (Students' view).

"Motivation in learning however neither they receive from home nor we have to give them." (Teacher's view)

From above responses, without any motivated or willingness a student cannot get any mathematics achievement. That is only possible by interrelationship among teachers, students, and parents. From above responses and records, I found that students were not providing any extra activities, mathematics problem and games and puzzles in mathematics, which is the lack motivating in the class. Therefore, low

achievement to students might have partially due to lack of proper motivation provided in learning mathematics. So, motivation is also the factor that affects the mathematics achievements.

Home study

A home study hour is more than that of schools hour. This is why home study is also another factor that affects students' achievement. In case of public school most of the students were from village and they had to work at home too. They had less time to study at home. There are some examples of responses obtained from the interviews.

"Sometimes I read 1 or 2 hours per day but not regularly. Sometimes I cannot because there is not time because of household works" (Girls' students view).

"I must have to help my parents for the household work and remaining time is used for the mathematics study" (Boys' students view).

From the above responses, the student cannot get sufficient time foe learning mathematics at home. So, they achieved less opportunity and importance from the parents for the study at home. So, they cannot get good achievement in mathematics. I found that form these studies study at home was important thing which also affect the mathematics achievement of the students.

Poverty

According to the population census 2068 B.S. 23.8% of Nepalese people were livings below the line of poverty. In the eastern region of saptari district, Hindus culture and Muslims culture were not remaining free away from poverty. Poverty is also an obstacle which effects on every aspect of life. Among them somebody work in foreign country and somebody doing the work of land labors. So, there parents' couldn't manage the educational environment at home and school. Also, they couldn't

give the educational facilities for their children which could be obtained from good economics condition.

Environmental Factor

The family environment directly effects on their education. In the respondents family, there is no one education. In such situation, who would help on their study? It seemed that they were not interested in study because they could not see any one studying in their neighborhood and even at home. They always see the people in their society spending their leisure time talking to each other. It is found that there is no one in the family to create the suitable environment for their study.

This part of the analysis deals with the environment factors that effect the student achievement. Based on the researcher own studies, review of pertinent research studies and background and experience in the field as well. The research found the environmental factors are following:

Parental Support

The parents support is very important to students' studies. But in the Muslim community the parents support is taken as low and negative. Most of the Muslim students' parents are engaged in fishing and boating so they do not have time to control their sons.

Parents' role construction parents' belief about what they are supported to do in their children's education and appears to establish the basic range of activities. Parent senses of efficiency for helping their children succeed in school. Parents and family members are the primary factors to affect children achievement. There were some samples responses obtained from interview.

"My parents are illiterate. They cannot teach me even though I have mathematics problem" (Students view of Muslim).

"My parents say they can teach up to S.L.C. level. They say I have to work and live on myself and study myself"(Students view of Hindu).

"Why to study a lot when they (students their son) have to work in low ranks official in foreign country. They will not get any job here, say parents" (teachers view).

"My parents are poor so they are unable to pay the amount of the extra classes and for tuition fees and extra books." (Students view of Muslim).

Above these view s shows that the parental support to them seem to be pivotal element for the students' mathematics achievement and overall achievement as well. The helping environment of parents has positive results in mathematics achievement.

Guardians's view

With the guidelines mentioned the researcher interviewed the respondent. Children's guardians whose views are given below:

Guardian-I*: He is a farmer and in leisure time he works in making building in his village. He had flexible work load and family members work together with him. He had enough time to study and do homework. He had specific time to study from 7 pm to 9:30 pm. He also got guidance in his study from the family members.*

Guardian-II*: He is a small farmer. He doesn't have basic things in his house, how long can you go in this way. Nobody in the family earn money. He is in difficult situation to survive. How can he send the children to school?*

Guardian-III: *He was a primary teacher of Shree Jadu Primary School. His total income expends on daily livelihood of their joint family. He has no other income source that can spend on their children's; his children are not going for study.*

Guardian-IV*: we are a poor family. Because of the weak economic condition, we could not afford the good education for our children.*

Guardian-V*: I don't have enough money, so I cannot invest much money for study and I don't expect from them.*

We work very hard but earn little money. It will be spent just for hand to mouth problem. This money is insufficient for our children's study.

Guardian-VI: *He is a farmer. According to him instead of some household works to do at home, He had been given the time for study but he says that it is insufficient for his study. He was provided with books and stationaries. His son studied in Grade VIII.*

***Guardian-VII** : We are poor farmers. It is our compulsion to plant and write in the leisure time expect the household chores and the have to engage our cultural program.*

***Guardian-VIII:** We are a simple tailor. So we must work in the home of upper caste people. The people of this society think that Muslims should not study*

***Guardian-IX:** We are butcher. We have to rear, feed and take care of the cattle. We don't have enough time to send our children to study as we have to go to market every day to sell meat. It makes our livelihood happy.*

***Guardian-X**: They parent's sad although we have studied more or less but don't have get any job.*

Most of the parents are farmer's they do not have enough money and time to their children to study good education. In other case most of the parents are poor. They have not enough money to study their children.

Class Size

The number of students increases the achievement rate.so that students' number in classroom is one influencing factor for teaching learning activities. Total number of students has to do many things with result whatever the region; the result is very trouble same for students and teachers as well as organization itself. There were some sample responses obtained from interview.

"He can't complete homework checking of all students through the everyday gives homework to us. But he checks few copies without any systematic way" (students view).

"The teacher check homework after a long time so we can't correct it although it is wrong" (students view).

"*we can't check homework and class work completely all of the students every day. We couldn't ask any question about mathematics problem. Student participation is troublesome in classroom. Because, large number of students" (teachers view).*

From the above view, the class size is affecting the mathematics achievements of students. The large number of students gave trouble to the teacher in finishing the home / class assignment and class management properly. The school was unable to provide enough materials for all students and extra time for them. Luck of proper care and individual handing of the student's participation in class work checking was less. These all affected the achievement in mathematics class. They want to need much time for mathematics subjects.

Students Teacher Interaction

For effective and lifelong learning, classroom focused on the interplay between teachers and students understanding through students-teacher interaction in mathematics classrooms. There were some sample responses obtained from interviews.

"Our mathematics sir does not speak much. We are not very much near to him. We are afraid to ask question in the classroom (students view).

Above these views impart the attitudes of students towards their mathematics teacher because of his behavior and introvert quality. The students were not familiar with his behavior. The got afraid and could not ask question properly. Whenever they had any confusion students' achievement was directly affected by teacher inability for reinforcement for interaction on the mathematics classroom.

Teacher's view

Teacher-I: *They do not practice at home and says to me report about busy in their household works.*

Teacher-II*: They don't get enough time to study in home because of the work load.*

Teacher-III: *Muslims parents have many children and they are unable to give education to all children.*

Teacher-IV: *Hindu caste students always dominate Muslim caste students so mainly they are absent school.*

Teacher-V: *Some students get enough time so students got the good position.*

Most of the teachers reports about busy in their household work. So, students can not enough time to their study. In our society Muslim parents have money more children. So, they do not provided good education to their child.

Social factors

The substance that is found in society and plays a vital role in learning process is a social factor. When people births he is single but whatever he learns from society. So the home and society is the first school of the people. So, no people can be separated from the society as a result he gains much more knowledge from the society. Social constructivism theory also emphases that everyone can learn from interaction. The language used or spoken in family and community also effects in learning process.

Society is a group of people in general, living together in communities. Human beings are social creature. So, every activities of society affect him. Every student born, grownups, became familiar to society. Hindu community is one same as Muslim. In the past, this cast was dominated by upper castes but now that discrimination is very less and legally punishable. Through such discrimination are not in action today but they themselves were psychologically supported. So, these causes affect the mathematics achievement.

"We must work in the home of upper caste people. The society thinks that the Muslim must not study." (Muslim parent's view)

"I teach children then how to get help to make boat and net for fishing. And who plough in other's fields" (parent's view)

Social tradition, affect the student performance. In this modern age the students also get the educational opportunity in advance society, but the Hindus culture and Muslims culture were not conscious about educational opportunity in advance society. They said that education is not useful for our children because they cannot get job. Government job is only for Hindu religion students so they are not trained for education. If the economic condition is better than they did not give education to their family. They give more priority to their father occupation and they also involve their children in that occupation. They did not think seriously about the education of their. So, social factor is one of the factors affecting of students achievement.

Language

Language is most important for good communication. In the class, the teacher didn′t use local langue and Urdu language. So they felt difficulty to understand. They did not understand simple idea about mathematics in Nepali language class. In Nepal, there are 125 different castes and 123 mother tongues. Among the 122 enlisted castes include in any religion. They have own Language. So, Muslim Culture has also their own Language which is different from national Language with their originality. Muslim speaks in Urdu. This makes difficult them to every field. However, the curriculum in which the Muslim children are studying in Nepali Language makes learning process difficult to them. so it can be takes as an affecting factors in mathematics of Muslim students.

"I never understand anything, what the teacher says in Nepal while teaching us" (student's view)

"our parents at home frequently speak Maithili language at home but they do not use Nepal. So, we must speak Maithili language at home but teacher always teach us in Nepal language. If teachers taught us in our language, If would be easier for to understand the mathematics salutation "(students view). "Our curriculum is in Nepali language. So, we are forced to use Nepali language in classroom teaching. The students from others culture are unable to understand mathematics properly" (Teachers views).

The above view shows that Maithili students do not understand Nepali language while the teacher teachers in Nepal. The students were forced to speak Nepali as their second language. So, the use of Nepal language in teaching mathematics is one main problems to the understand mathematics.

Culture Factor

In reading literature in the field of mathematics education and mathematics, one is struck by the contrast between those who present results, outcomes product and those, for whom the process is integral to what is being processed. This is so called product process debate has, to some extent, obscured the distinction between mathematical activity which bring, in its own right, satisfaction and pleasure, but might ultimately accomplish particular outcomes.

The customs, belief, art, way of life and social organization of a particular country or group is culture. Culture is one of the bases of human civilization which shapes the psyches of the individual and the society. Culture factor also affect the mathematics achievement. There has been that factors like childhood marriage, working in upper religion family, family occupation.

Childhood Marriage

Childhood marriage is a kind of burning problem of Hindus culture and Muslims culture s families. Hindus culture and Muslims culture s parents do their children marriage in small age. That is their culture norms, which effects on the achievement of Hindus culture and Muslim cultures students. When they have a time for reading at that time they are busy in their family life. So, they can't complete their education in time. And his/her achievement level is also affected. So that we can say that childhood marriage is one of the main factors which affect the student's achievement of mathematics.

Working in Upper Religion Family

There was and old tradition of Hindus culture and Muslims culture family where these were working in upper religion family. This kind of tradition was started from many years ago. Their children were also help in their profession'. So, parent's occupation disturbs their education. So, the achievements level is affective very complex these ethnic children couldn't make their study effective. That is also main factor which affect the achievements mathematics for the students.

Family Occupation

The Hindu parents did their old family occupation like agriculture, Hindu of rich person and as foreign employers mainly in foreign counter. And the Muslim parents did their old family occupation like agriculture, doing work in upper caster family and as foreign employments manly in any country. Afterschool period Hindus culture and Muslims culture students helps their parent so they did not get sufficient time for study. So, household work is the major factors to affects their achievements.

Triangular relationship

According to above collected information from respondent (students, guardians, peer view, teachers' view). The student who had good environment at home had good achievement in mathematics and the teacher also said that these students were also actively participated in classroom activities as classwork, homework and these students were familiar with friends. And the guardian also stated the economic efficiency with results. The students to do household chores as their parent do labor for money.

As a above triangular relation, there is a relationship between these factors personal factor, social factor, environment factor and culture factor. In the class observation mathematics teacher problem in language to illustrate the students in

mathematics concept and students also can’t express their feeling and problems as the hesitation of language because of their symbolization in language is different to common language taught in school.

Chapter-V

SUMMARY, FINDING, CONCLUSION AND RECOMMENDATION

Summary

The modern work, mathematics is increasing used in science and technology, social science, management and education etc. Hence it has been considered as queen and service subject for all science. Most of the students dislike mathematics. So, it indicates that the attitude of subject towards mathematics was not positive. The study was focused on the problem that mainly concerns the topics to find out the reason of degree on achievements of mathematics in Hindus culture and Muslims culture at grade VIII. The main objective of this study was comparison of mathematics achievements of Hindus culture and Muslims culture student in Saptari district, to identify the factor affecting mathematics achievements of Hindus culture and Muslims culture student in Saptari district.

The population of the study area was students who studies at grad VIII in Saptari district. The researcher selected ten government schools form Saptari district by using purposive sampling. From these school 100 students mark sheet were selected for comparison Hindus culture and Muslims culture students.

To collect the information about the factor affecting mathematics achievements, 5 teachers, 5 students and Groups discussion were included for interview. The research visited each sample school. The researcher informed the purpose to all the school before hands. After visiting the school, with the permission of the head teaches. The research conducted the interview with the teachers, students and group decision on the basis of semi-structure interview schedule. The response given by they were copied in paper. The score of 100 students were analyzed by using the mean standard deviation and two tailed t-test under the comparison mathematics

achievement of Hindu cultures and Muslim cultures students. The collected information was analyzed in descriptive from obtained by semi structure interview schedule for teacher, students and group discussion.

Findings

This study was a survey study to find that factors affecting mathematics achievement of Hindu cultures and Muslim cultures students in mathematics. The major findings of the study were follows.

- The mean percentage of mathematics achievements of Hindus culture and Muslims culture are 33.56 and 26.62 respectively. It is found that Muslim students do differs and significantly from Hindu students with respect to mathematics achievement.
- The mathematics teacher's behavior is not different for Muslim students and others researcher found the teacher's as normal but Muslim students are not motivated mathematics class.
- Home environment directly affect the achievement of mathematics.
- Teachers' could not care every student individually and properly because of large number of students.
- Teaching materials was less used at case school in the mathematics teaching.
- Teaching method used by the teacher was traditional.
- Parent indifference to their children, unfavorable home environment for better study left poor results in student's mathematics achievement.
- Most of their occupation was farming which requires more labour. So, they include their children in agricultural work which hampered the achievement of Muslim students in mathematics. On the basis of the findings, it is concluded that the achievements are affected by culture and religion traditional.

Conclusions

Teaching learning process has become a great issue in different levels of education. Form primary to lower secondary levels of education different factors directly and indirectly effect the Hindu cultures and Muslim cultures student's achievements moreover this study has shown that mathematics learning and achievements need prior knowledge, extra labor as well as strategic teaching technique and regularly of students playas a vital role in students cognitive developments classroom practices and the curriculum and the curriculum are closely linked. Achievement of the Hindu cultures and Muslim cultures students is always affected by different variables such as teacher support, parents support and school. This focus on the learning's role in mathematics understanding began with the developments of reforms in mathematics instruction program that attempted to incorporate new skills of thinking and working in mathematics.

The study finds that a mathematics achievement of Hindu cultures and Muslim cultures is different and there is significant difference between Hindu cultures and Muslim cultures students with respects to mathematics achievements. There is a significant difference between boy Hindu cultures and girl Muslim cultures with respect to mathematics also between Hindu cultures and Muslim cultures with gender.

Throughout the period of the study the following major factors had been found. These are Personal factors, environment, social and culture. Gender is the range of characteristics pertaining to, and differentiating between masculinity and femininity. Prior or basic knowledge is also important potential determined of performance of the students. Attendance is discontinuity of the attendance or absenteeism influences the mathematics achievement. Motivation is the "processes of need drive satisfaction." It process acting either on or within a person to initiate behavior. Home study, in case of public school most of the students were from village and they had to work at home. Poverty's population census 2068 B.S. 23.8% of

Nepalese people were living below the line of poverty. Environment factors, parent's senses of efficiency for helping their children succeed in school. Class size, the large number of students gave trouble to the teacher in finishing the home properly. Social factors, society is a group of people in general living together in communities. Language, Muslim language include in Urdu. So, Muslim students are studying in Nepali language makes learning process different to them. Culture factor, childhood marriage is a kind of burning problem of Hindu cultures and Muslim cultures. Parents do their children marriage in small age. So that we can say that personal factors, environment, social, culture are one of the main factor which affects the student's achievement of mathematics.

Recommendation

The condition of this study can't be generalized to all school students public and to all areas (rural and urban) due to the limitation contained in this study. Thus, after analyzing the conclusion and implication of this study the researcher would like to suggest some recommendation for the improvement of the student's achievement in mathematics are pointed out as follows.

- Continuous assessment system should be implemented to improve student's achievements in Hindu cultures and Muslim cultures students.
- Most of the students from rural areas are weak in Hinds cultures and Muslim cultures comparatively to the students from rural area so, some effective mathematics program should be lunched in rural area's school to improve their study.
- Teacher should understand characteristics and interest of learner. Considering those factors they should be able to create best learning environment to maximize their achievement in the study.

- The present study is limited to Hindu cultures and Muslim cultures ethnic group of Saptari district. Similarly, the study may be carried on another's ethnic groups.
- Effect of specially designed method of mathematics achievements can be studies.
- National-wise and region –wise research of factors affecting on achievement ethnic students in mathematics.
- To improve their achievement of mathematics personal, self, society, school, home, motivation, society should encourage and provide special treatment for reading environments.
- Mathematics teacher should bring different programs that can develop positive attributes in Hindu cultures and Muslim cultures society.

BIBLIOGRAPHY

Acharya (2001). *A comparative study of antenatal care have Hindus culture and Muslims culture respondent was not satisfactory*. Unpublished Master thesis Departments of mathematics education T.U. Kritipur

Ghimire. (2007). *Factors affecting students achievement in Mathematics at Lower Secondary Level.* Unpublished Master's thesis Departments of mathematics education T.U. Kritipur

K. C, R. K. (2001). *A comparative study of Achievement in Mathematics of Primary Level St udent of Chhetri, Tharu and Kami caste in Surkhet District*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Khatri, R. K. (2001). *A comparative study of achievement in mathematics a primary level students of Chhetry, Tharu and Kami caste in surkhet district*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Kunwar, N. B. (2003*) Mathematics achievement of hybrid and non-hybrid students*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Naupane, A. K. (2006). *Effect of Socio-Economic Status on mathematics Achievement*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Ogbu, J. U. (1982). *Cultural Discontinuity and schooling: In anthropology and Education Quarteriy*.

Regmi, R. P. (2004). *A study of achievement in mathematics of Gurung and Kumal students at primary level*. Unpublished Master's thesis Department of Mathematics Education T.U., Kritipur.

Shahi, H. P. (2009), *Factor affecting achievement of dalit student in mathematics (A case study in Ranagaun VDC. Doti District)* Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Shrestha R. (2004). *Mathematics achievement of Gurung and Magar children of lower seconder level*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Subedi, (2000). *A comparative study of achievement in mathematics of primary level students*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Subedi, (2008). *A study of achievement in mathematics of Chhetri and Tharu student at lower secondary level*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Subedi, T. (2008). *A study of achievement of Gurung and Magar children of lower secondary level*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Tiwari, (1984). *A comparative study of boys and girls attitude toward mathematics*. Unpublished Master's thesis Department of Mathematics Education T.U., Kirtipur.

Upadhyay, H. P. (2064). *Teaching mathematics* (2nd) Kathmandu. Ratna Pustak Bhandar.

APPENDIX- A

List of Sampled School

1. Shree Raj Thako Devi Secondary school Rajbiraj -3
2. Shree P.B. Secondary school Rajbiraj- 5
3. Shree Janta Secondary School Khuruhuriya -6
4. Shree Kanta Chandra Higher Secondary School pato -3
5. Shree S. L. P. Higher Secondary School, Mahuki, Pathargada-5
6. Shree Ishwari Hiya Surati Jilebi Janata Secondary, School Sarshwar Dhangadhi-2
7. Shree Rajaji Higher Secondary School Sisba Belahi -1
8. Shree Sarsawati Secondary School Auirahi-5
9. Shree Rajobati Secondary School Kushaha,Arnaha-3
10. Shree Shatrughan Secondary School Negara Bariya -2

APPENDIX B

Marks obtained by Hindu cultures and Muslim cultures students in Grade VIII of Final Exam 2072.

F.M. = 100

S. N.	Hindu		Muslim	
	Gender		Gender	
	Boys	Girls	Boys	Girls
1	35	44	54	28
2	32	38	35	14
3	55	32	32	18
4	45	15	19	19
5	35	17	16	22
6	38	22	32	24
7	43	35	33	23
8	50	35	38	35
9	46	32	29	32
10	48	32	22	33
11	43	32	32	31
12	42	48	32	08
13	45	14	32	15
14	47	27	37	25
15	35	07	10	24
16	22	09	34	30
17	17	15	22	13

18	21	22	28	27
19	39	32	30	26
20	52	34	33	23
21	28		32	
22	44		28	
23	32		42	
24	32		23	
25	33		22	
26	35		18	
27	38		17	
28	31		32	
29	18		26	
30	55		21	

Source: S.L.P. School Marksheet 2072.

APPENDIX -C

Marks obtained by Urban and Rural students in Grade VIII of Final Exam 2072

S.N.	Student name	Mark obtained	Area	
			Urban	Rural
1	Shambhu Das	35	Urban	
2	Ranjit Singh	32	Urban	
3	Rabindra Singh	55	Urban	
4	Manish Sah	45	Urban	
5	Triloki Das	35	Urban	
6	Gaurishankar Sah	38	Urban	
7	Dipak Kumar Yadav	50	Urban	
8	Pankaj Kumar Yadav	45	Urban	
9	Ramshankar Saday	34	Urban	
10	Sita Kumari Yadav	44	Urban	
11	Santoshi Kumari Sah	32	Urban	
12	Sangita Yadav	15	Urban	
13	Anita Sah	17	Urban	
14	Kanchan Mandal	22	Urban	
15	Sony Kumari Singh	32	Urban	
16	Sabitri Paswan	48	Urban	
17	Laxmi Kumari Yadav	27	Urban	
18	Poonam Das	15	Urban	
19	Firoz Ansari	54	Urban	
20	Md. Daud Ansari	35	Urban	
21	Md. Nazim Akhtar	32	Urban	
22	Md. Afroj Alam	38	Urban	
23	Md. Kamrool	32	Urban	
24	Md. Ataul Ansari	37	Urban	
25	Md. Salim Ansari	28	Urban	
26	Haseena Khatun	28	Urban	
27	Jinnat Akhtar	22	Urban	
28	Hadima Khatun	35	Urban	

29	Fatima Khatun	33	Urban	
30	Najma Khatun	25	Urban	
31	Rahana Praween	30	Urban	
32	Sabina Khatun	13	Urban	
33	Santosh Sah	27	Urban	
34	Aasha Kumari Yadav	39	Urban	
35	Sarooj Yadav	52	Urban	
36	Bhukur Ram	32	Urban	
37	Dhirendra sah	33	Urban	
38	Nabin Kumar Pandit	35	Urban	
39	Ramakbal Saday	38	Urban	
40	Shatrudhan Sah	18	Urban	
41	Rampukar Sardar	55	Urban	
42	Md. Faruk Ansari	30	Urban	
43	Md. Mahafooz Alam	33	Urban	
44	Md. Samim	23	Urban	
45	Md. Mister	28	Urban	
46	Harun Alam	23	Urban	
47	Ansarul Ansari	17	Urban	
48	Md. Ali Ansari	32	Urban	
49	Md. Lukman	26	Urban	
50	Md. Jafur Alam	21	Urban	
51	Abhimanyu Paswan	43		Rural
52	Shailendra Ram	46		Rural
53	Pramod Kumar Yadav	48		Rural
54	Shambhu Yadav	43		Rural
55	Krishna Kumar Sah	42		Rural
56	Ram Prasad Goit	47		Rural
57	Arjun Ram	35		Rural
58	Rajesh Pandit	22		Rural
59	Inerdev Sah	17		Rural
60	Satnarayan Sah	21		Rural

61	Shivram paswan	38		Rural
62	Ram Pukar Sah	35		Rural
63	Ram Jiwan Yadav	35		Rural
64	Lakshmi Kumari Chaudhary	32		Rural
65	Sushmita Goit	32		Rural
66	Tulsi Kumari Sah	14		Rural
67	Koshila Kumari Sah	7		Rural
68	Sarita chaudhary	9		Rural
69	Sushila Devi	22		Rural
70	Preety Kumari Chaudhary	32		Rural
71	Shakuntala Das	19		Rural
72	Md. Firoz Khan	16		Rural
73	Md. Daud Khan	33		Rural
74	Md. Imran Ali	29		Rural
75	Md. Sadddam Khan	22		Rural
76	Md. Samsad Khan	32		Rural
77	Md. Akbar Khan	32		Rural
78	Md. Kurbaan Ali	10		Rural
79	Sanaullah Hussain	22		Rural
80	Md. Mujib Akhtar	14		Rural
81	Md. Rustom	18		Rural
82	Md. Manjur	19		Rural
83	Md. Ansarul Khan	24		Rural
84	Samina Khatoon	23		Rural
85	Arpana Khatun	32		Rural
86	Najma Khatun	31		Rural
87	Gulsan Khatoon	8		Rural
88	Gudiya Praween	15		Rural
89	Nasrin Praween	24		Rural
90	Gajala Praween	32		Rural
91	Punita Chaudhary	34		Rural
92	Arpana Khatun	28		Rural

93	Hajara Khatun	44		Rural
94	Samina Khatun	32		Rural
95	Maryam Khatun	21		Rural
96	Nijma 0Khatun	32		Rural
97	Ram Binay Saday	42		Rural
98	Md. Mehboob Alam	22		Rural
99	Fatima Khatun	18		Rural
100	Ruksana Khatun	26		Rural

Source: S.L.P. School Mark sheet 2072.

APPENDIX -D

Statistical formulae used for Data Analysis

1) Mean ($\bar{X}$) = $\frac{\sum X}{N}$

2) Variance of statistics = $\frac{\sum(x-\bar{x})^2}{N}$

3) S.D.(σ) = $\sqrt{\frac{\sum(x-\bar{x})^2}{N}}$

4) T-test to determine significant different between the two means

   a) For equal sample t = $\frac{\overline{x_1}-\overline{x_2}}{\sqrt{\frac{S^2_1}{N_1}+\frac{S_2{}^2}{N_2}}}$

   b) For unequal sample t = $\frac{\overline{x_1}-\overline{x_2}}{SP\sqrt{\frac{1}{N_1}+\frac{1}{N_2}}}$

Where SP = $\sqrt{\frac{(N_1-1)S_1{}^2+(N_2-1)S_2{}^2}{N_1+N_2-2}}$

Where,

$\bar{x}_1$ = mean of first sample

$\bar{x}_2$ = mean of second sample

N = Total number of students

N_1 = Number of items in first sample

N_2 = Number of items in second sample

$S_1{}^2$ = Variance of first sample

$S_2{}^2$ = Variance of second sample

APPENDIX –E

Interview guidelines with students

Name of the student:……..

Roll no:…….. Class:..

Gender:…..... Age:..... Date:……..

Place of birth:……

Position of the class:…….

The interview in the Muslim and Hindu students had taken on the basis of following main topics:

- Family background
- Personal history
- Reading and writing opportunity at home
- View about mathematics subject
- View about learning environment at school and home
- View about helping hand in learning at home
- View about factors that affecting mathematics achievement

APPENDIX – F

Interview Guidelines with parents

Name :……

Date:…….

Address:…….

Age:……

Qualification:…….

Occupation:…….

The interview with the parents had been taken on the basis of the following main topics.

- Parents behavior towards child at home
- Main interesting area of child at home
- Environment at home for learning
- Physical facilities for learning
- Economic condition about family
- Motivation towards children

APPENDIX- G

Interview guidelines with mathematics teachers

Teacher's name:……

Date:……

Qualification:……

School name:……

Teaching experience:……

The interview with the mathematics teacher had been taken on the basis of following main topics:

- School facilities
- Class room management
- Participation in the class
- Area of difficulties in learning mathematics
- Teacher student relationship
- About homework of case students

Appendix -H

Observation Schedule

Schools Name:

Date:

Teacher Name:

No. of Students: 100

S.N.	Student name	Attendance			Gender		Religion		C.W.			H.W.			Interaction with teacher			Interacti with Group	
		D	S	N	M	F	H	M	D	S	N	D	S	N	D	S	N	D	S
1	Shambhu Das	D			M		H		D			D			D			D	
2	Ranjit Singh		S		M		H			S			S			S			S
3	Rabindra Singh	D			M		H		D			D			D			D	
4	Manish Sah	D			M		H		D			D			D			D	
5	Triloki Das		S		M		H			S			S			S			S
6	Gaurishankar Sah	D			M		H		D			D			D			D	
7	Abhimanyu Paswan	D			M		H		D			D			D			D	
8	Dipak Kumar Yadav	D			M		H		D			D			D			D	
9	Shailendra Ram	D			M		H		D			D			D			D	
10	Pramod Kumar Yadav	D			M		H		D			D			D			D	
11	Shambhu Yadav	D			M		H		D			D			D			D	
12	Krishna	D			M		H		D			D			D			D	

	Kumar Sah																		
13	Pankaj Kumar Yadav	D			M		H		D			D			D			D	
14	Ramprasad Goit	D			M		H		D			D			D			D	
15	Rambinay Saday		S		M		H			S			S			S			S
16	Ramshankar Saday		S		M		H			S			S			S			S
17	Saroj Yadav		S		M		H			S			S			S			S
18	Bhukur Ram		S		M		H			S			S			S			S
19	Dhirendra Sah	D			M		H		D			D			D			D	
20	Nabin Kumar Pandit	D			M		H		D			D			D			D	
21	Ramakbal Saday		S		M		H			S			S			S			S
22	Shatrudhan Sah	D			M		H		D			D			D			D	
23	Rampukar Sardar	D			M		H		D			D			D			D	
24	Arjun Ram		S		M		H			S			S			S			S
25	Rajesh Pandit	D			M		H		D			D			D			D	
26	Indradev Sah		S		M		H			S			S			S			S
27	Satnarayan Sah	D			M		H		D			D			D			D	
28	Shivram Paswan	D			M		H		D			D			D			D	
29	Ramkumar Sah		S		M		H			S			S			S			S

30	Ram Jiwan Yadav	D			M		H		D			D			D			D	
31	Sita Kumari Yadav	D			F		H		D			D			D			D	
32	Laxmi Kumari Chaudhary	D			F		H		D			D			D			D	
33	Santoshi Kumari Sah	D			F		H		D			D			D			D	
34	Sangita Yadav		S		F		H			S			S			S			S
35	Anita Sah		S		F		H			S			S			S			S
36	Kanchan Mandal	D			F		H		D			D			D			D	
37	Aasha Kumari Yadav	D			F		H		D			D			D			D	
38	Sushmita Goit	D			F		H		D			D			D			D	
39	Sony Kumari Singh	D			F		H		D			D			D			D	
40	Tulsi Kumari Sah	D			F		H		D			D			D			D	
41	Kabita Kumari Yadav	D			F		H		D			D			D			D	
42	Sabitri Paswan	D			F		H		D			D			D			D	
43	Koshila Kumari Sah		S		F		H			S			S			S			S
44	Lakshmi Kumari Yadav	D			F		H		D			D			D			D	
45	Sarita	D			F		H		D			D			D			D	

	Chaudhary																		
46	Punita Chaudhary	D			F		H		D			D			D			D	
47	Poonam Das		S		F		H			S			S			S			S
48	Sushila Dev		S		F		H			S			S			S			S
49	Preety Kumari Chaudhary	D			F		H		D			D			D			D	
50	Sakuntala Das	D			F		H		D			D			D			D	
51	Firoz Ansari	D			M		M		D			D			D			D	
52	Md. Daud Ansari	D			M		M		D			D			D			D	
53	Md. Farukh Ansari	D			M		M		D			D			D			D	
54	Md. Mahufuj Alam		S		M		M			S			S			S			S
55	Md. Afroj Alam		S		M		M			S			S			S			S
56	Md. Nasim Akhtar	D			M		M		D			D			D			D	
57	Md. Samim	D			M		M		D			D			D			D	
58	Md. Mister	D			M		M		D			D			D			D	
59	Harun Alam	D			M		M		D			D			D			D	
60	Ansarul Ansari		S		M		M			S			S			S			S
61	Md. Lukman		S		M		M			S			S			S			S
62	Md. Ali Ansari	D			M		M		D			D			D			D	
63	Md. Jafur Alam	D			M		M		D			D			D			D	
64	Md. Ataul Ansari	D			M		M		D			D			D			D	

65	Md. Kamrool	D			M		M		D			D			D			D	
66	Md. Salim Ansari		S		M		M			S			S			S			S
67	Md. Mahaboob Alam	D			M		M		D			D			D			D	
68	Md. Firoj khan	D			M		M		D			D			D			D	
69	Md. Parvez khan	D			M		M		D			D			D			D	
70	Md. Daud khan	D			M		M		D			D			D			D	
71	Md. Imran Ali	D			M		M		D			D			D			D	
72	Md. Saddaam Khan	D			M		M		D			D			D			D	
73	Md. Samsad Khan	D			M		M		D			D			D			D	
74	Md. Akbar Khan		S		M		M			S			S			S			S
75	Md. Kurbaan Ali	D			M		M		D			D			D			D	
76	Sanaullah hussain	D			M		M		D			D			D			D	
77	Md. MujibAkhtar		S		M		M			S			S			S			S
78	Md. Rustom	D			M		M		D			D			D			D	
79	Md. Manjur		S		M		M			S			S			S			S
80	Md. Ansarul khan		S		M		M			S			S			S			S
81	Samina	D			F		M		D			D			D			D	

	Khatun																		
82	Arpana Khatun		S		F		M			S			S			S			S
83	Najma Khatun		S		F		M			S			S			S			S
84	Rahana praween		S		F		M			S			S			S			S
85	Shabana Khatun	D			F		M		D			D			D			D	
86	Gulsan Khatun	D			F		M		D			D			D			D	
87	Gudiya Praween		S		F		M			S			S			S			S
88	Nasrin Praween	D			F		M		D			D			D			D	
89	Gajala Praween	D			F		M		D			D			D			D	
90	Jinnat Akhatar	D			F		M		D			D			D			D	
91	Haseena Khatun	D			F		M		D			D			D			D	
92	Arpana Khatun		S		F		M			S			S			S			S
93	Hajara Khatun		S		F		M			S			S			S			S
94	Najma Khatun	D			F		M		D			D			D			D	
95	Samina Khatun		S		F		M			S			S			S			S
96	Maryam Khatun	D			F		M		D			D			D			D	
97	Najma Khatun		S		F		M			S			S			S			S

98	Hadima Khatun	D			F		M		D			D			D			D	
99	Fatima Khatun	D			F		M		D			D			D			D	
100	Ruksana Khatun		S		F		M			S			S			S			S

Where, D=daily attendance, S=some time attendance, N= never attendance, ECA=extra curriculu
Observation comment, C.W.=
Classwork, H.W. =Homework, M=Muslim, H=Hindu