

PARTICIPATION OF MAITHILI GIRLS IN LEARNING MATHEMATICS

THESIS

BY

TULASI THAKUR

**FOR THE PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER IN MATHEMATICS EDUCATION**

SUBMITTED

TO

DEPARTMENT OF MATHEMATICS EDUCATION

CENTRAL DEPARTMENT OF EDUCATION

UNIVERSITY CAMPUS

TRIBHUVAN UNIVERSITY

KIRTIPUR, KATHMANDU

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Chapter-I

INTRODUCTION

Background of the Study

Education plays a vital role in the development of people, society and consequently the nation. It means for all kind of progress whether of an individual or society, educated persons are the agent of change in the society. Education is the backbone of development. It is also stepping stone to development. It means education is most essential part of human life. But education cannot perfect in itself without mathematics. The world is seeking for the participation of every people in every region. But the people from different lingual, socio-economic status, cultural background ethnic minorities are out of the access of basic education. In this context, participation of these people in mathematics is miserable consequently mathematical achievement of these people is very poor.

The national census (2011) listed 123 languages were spoken as mother tongue in Nepal. Most of them belongs to the Indo-Aryan and Sino-Tibetan language family. The official language of Nepal is Nepali, formally called Khas Bhasa or Gorkhali. According to the census, the percentage of Nepali speaking people is about 44.6%. Maithili is the second largest language that is spoken in Nepal and its percentage is 11.57%. Since Nepal is multilingual country, as a matter of fact this theme is appropriate in the context of multi-ethnic and multilingual Nepal in habituated by 126 caste/ethnic groups. Inclusion of languages in and through education is a significant one, which requires mother tongue-based multilingual education for school children.

The number of students, Maithili boys and Maithili girl students in mathematics education of Morang District is presented below:

Total Number of students	Maithili Boys	Maithili girls
5320	998	205

Source: Higher Secondary Education Board, Biratnagar, 2074

This table shows that there is poor participation of Maithili girls in mathematics as comparison to boys.

The annual enrollment records of the schools shows the following report of Maithili girls regarding participation in higher secondary mathematics.

Participation of Maithili Girls at Higher Secondary Mathematics

Name of Campus	No of mathematics student	No of Girls students	No of Maithili Boys	No of Maithili Girls
Public Higher Secondary School	50	15	12	1
Birendra Sarwajanik HS School	30	10	7	1
Saraswoti Higher Secondary School	40	12	10	1
Amarshing HS School	55	25	5	2
Panchayat HS School	43	18	13	1

Source: Annual enrollment record of Respective Higher Secondary Schools

This table shows that there is a less participation of Maithili girls at higher secondary level mathematics. So, the researcher was interested to dig out the factors affecting participation of these and analyze hidden factors.

Introduction to Maithili

Maithili people are an Indo-Aryan ethno-linguistic group who speak the Maithili language out of the Mithila region, which is now situated mainly in Terai region of Nepal especially from Jhapa to Parsa Districts. This area was part of the Kingdom of Videha, with its capital at Mithila Nagari, which is identified with Janakpur by many historians. The kingdom appears in the Ramayana. According to it and other ancient text, Mithila nagari is the birth place of Janak, father of Hindu Goddess Sita.

The common language of Maithil people is Maithili, which is one of the recognized regional languages of India and the second national language of Nepal enlisted in the 8th schedule of the Indian constitution and the interim constitution of Nepal. Historically, most Maithils never left their homeland- a life that kept them isolated in their own localities. In this isolation they developed a unique culture free from the influence from other parts of Nepal. The most striking aspects of their environment are the decorated rice containers, colorfully painted Vanrandas and outer walls of their homes using only available materials like clay, mud, dung and grass. Much of the rich design is rooted in devotional activities and passed on from one generation to the next, occasionally introducing contemporary elements such as bus or an aero plane. The people of Mithila traditionally subsisted on farming; irrigation is one of the most important aspects of the community. Maithils in Eastern Nepal built canals that irrigate thousands of hectors of land. They plant rice, mustard, corn, and lentils, but also collect forest products such as wild fruits, vegetables, medicinal plants and materials to build their houses', hunt deer and wild boars, and go fishing in the rivers and oxbow lakes.

Cultural Background of Maithili Community

Culture is the most distinctive attribute of human race. Today human beings are able to protect and transfer the cultural traits as per necessary. Culture is not a pre-constituted object but must be created through human intention and action. The human is the main actor beside the creation, manipulation, and interpretation of the culture. By virtue of human cognitive, today's civilization is possible. Culture is the human creation and use of symbol. Culture may takes as constituting way of life of an entire society, and this will include code of manners, dress, language, rituals, norms of behavior, system of belief. Sociologist also stress that human behavior is primarily the result of nature rather than nature (Dictionary of sociology). Culture is all that which is non biological and sociological transmitted in a society, including artistic, social ideological and religious patterns of behavior and the techniques for mastering the environment (Dictionary of Anthropology).

Statement of the Problem

Reviewing the long span of my learning experiences as a mathematics student and teacher in different academic level made me realize that the participation of Maithili girls in mathematic subject is very low in comparison to boy students (Yadav, 2014). This kind of differences shows one instance an unequally access to education to male and female in the country. The researcher myself is from Maithili community, so I was intended to research why girls are less participated in higher secondary level? What are the factors affecting to participate etc.

This study was related to the participation of Maithili girls' student at higher secondary level. Teacher while teaching mathematics in classroom, Maithili girls students are less interested to learn mathematics. Maithili students are culturally backwarded to study mathematics because people have misconception about Maithili girl's Education (Pandit, 2011).

The political, economic, religious and the cultural condition of the society can effect in the study of the mathematics education for the Maithili female. Now a day, no one can go far from the mathematics. So, mathematics education is most important for Maithili girls. “A girls of today will be a mother of tomorrow”, and empowered mother is the person based suited to recognized and promote the based interest of the child in every sphere survival development promotion and participation (Sharma, 2013). Most of Maithili girls student do not choose mathematics subject at higher level. Maithili girl’s participation was very low then higher level of Nepal. Therefore, there were different questions related to the difficulty in mathematics learning for Maithili girl’s students. The study has tried to answer the following research questions:

-) How are the Maithili girls participating in learning mathematics at higher secondary level?
-) How are the factors that affect the participation of Maithili girls?

Objective of the Study

The objective of this study was to explore the participation of Maithili girls in higher level in Morang district. In mathematics classroom, it appeared that the participation of Maithili girls is lower than boys. Many researchers have shown that the achievement of Maithili girls in mathematics is poor. The specific objectives of the study were as follows:

-) To explore the participation of Maithili girls in mathematics at Higher Secondary level.
-) To identify and analyze the causing factors of low participation of Maithili girls.

Significance of the Study

The social status of Maithili girls in a community is linked with the social status of women. Therefore Maithili girls should be educated so that they will be recognized their importance in the society. This study was concerned with the participation of Maithili girls in mathematics. The researcher tried to investigate and find out the factors of poor/less participation of Maithili girls in learning mathematics at higher secondary level. The enrollment of Maithili girls student at higher secondary level mathematics is very low. Mostly the Maithili girl's students want to go far from mathematics subject. In such situation, this study would help to find the solution of the existing problems of Maithili girls' participation in mathematics at higher secondary level. Especially, this study is important for the following significance.

-) This study would help to increase Maithili girl participation in higher level mathematics.
-) This study would suggest the further research study area regarding problem of learning mathematics for different community of Nepal.
-) This study would help to find out the factors that affects in participation of girls in mathematics learning.
-) This study may help for the government to formulate policy and take right decision to improve mathematics education of Maithili girls.

Delimitations of the Study

Delimitation in research refers to choices that the researcher makes for the study that are under the control of the researcher. Delimitations include the population of a study, variables, statistical analysis and focus of the research, states the terms conditions and delimited areas of research.

-) This study is concentrated on only Maithili girl's participation in Higher Secondary level mathematics in Morang district.
-) This study may not generalizable to overall Maithili girls.
-) This study is limited to the three higher secondary schools of Morang District.
-) The result of this study is not generalizable in other subjects of higher secondary level.

Definition of key Terms

Participation: The word 'participation' refers to the act of sharing in the activities of a group. In this research, female participation primarily refers to Maithili girls' enrollment and their presence in classroom activities of mathematical learning in higher secondary level mathematics classes.

Peers Influence: Peer influence refers to peer's help in subject selection, motivation towards this subject, learning help, etc. on study of mathematics.

Factors: Factors are the elements contributing to a particular result of or situation. In this research, factors refer to the situations which lead to the poor participation of Maithili girls in mathematics education at higher secondary level.

Higher Secondary School: The school based on the class one to class twelve. In this study, higher secondary level indicates +2 levels.

Maithili Girls: Maithili girls in this study refer all Maithili girl students at higher secondary level.

Chapter- II

REVIEW OF RELATED LITERATURES

This study is concerned with the participation of Maithili girls in learning mathematics at higher secondary level. Review of related literature is an essential part of research for the researcher because related literature helps and guides researcher for the further study. This chapter describes the development of girl education. The previous studies cannot be ignored because they present the foundation to the present study. This chapter also describe empirical and theoretical framework on this study.

Empirical Literatures

Chapain (2011) carried out a research on "A study on mathematics achievement of Girls students in Kailali district." The purpose of his study was to find out the achievement of Girls student in compulsory mathematics. He selected sixty Girl students of grade eight through non-purposive random sampling procedures. He used test item and interview main tools for the study. Researcher found that students were found to be proper in the test on comprehensive, writing with understanding and dictation exercises. The performance of students in various aspects of the authentic portion of the test showed that the students were weak in understanding the place value of numbers, the concept of fractions and the application of four simple rules

Dhakal (2010) carried out a research on "Factors affecting mathematics achievement of Rai students in Khotang district." The major objective of his study was to find out the factors that cause the underachievement of Rai students. He used non-purposive random sampling procedure. Test items and questionnaire were major tools for data collection. He found that the children of Rai communities who learned mathematics in the mother tongue at primary school level performed better on

mathematics concept than those who did not learn mathematics in their mother tongues. Thus, the researcher found that there were many problems or factors which affected achievement of mathematics learning. He gave his conclusion for this study that the factors like parents, education or economic condition, environment, etc. were exponentially responsible for low mathematics achievement.

Janawali (2007) did a research on the topic “causes that affect mathematics achievements of girls” with two objectives to determine the correlation between affecting factors and mathematics achievements of girls students in terms of school related factors and out of school related factors. For this research researcher has been selected 50 girls students from 10 public schools of sampled students was obtained through the students questionnaire form and achievements from school record.

Various statistical techniques such as mean, correlation coefficient and regression analysis were used to analyze the collected data. The researcher was concluded with the two major findings that school environment, adequate study opportunity and parents perception towards girls education are the most important factors affecting achievement of Girls.

Karki (2011) did a research the topic “Factors are causing low participation in Mathematics at secondary level” with three objectives to determine the correlation between causing factor and mathematics achievement at ineffective school of Surkhet district. For this research researcher has been selected twenty students from each ineffective and effective by taking Interview schedule and Observation form to find out factors of low participation. The researcher found the factors causing low participation are gender, Motivation, Personal factors, Attendance and study at home. The researcher has used to description method to describe factors of low participation.

This study shows that different situation (home related and school related) of the case respondent affect their achievement due to engagement of household work, farm work, labor work and the interaction between the member and society. It was also concluded that teacher and teaching method are not main factors to affect their achievement learning mathematics. Different situation of home, society, friends and parents affect them in mathematics. So that researcher concluded that the poverty, social belief, social tradition, cost of education, household, workload, problem of health, psychological effect, lack of motivation all these factors affected the respondent mathematics learning.

Theoretical Literature

In this research, researcher has used liberal feminism theory because this theory primary focuses on women's ability to show and maintain their equality through their own action and choices. Liberal feminist argue that or society holds the false believes that women are, by nature, intellectual and physically less capable then men. It tends to discriminate against women in the academic and market place (Shrestha, 2003).

Liberal Feminism

In this research, the researcher has used liberal feminism theory because this theory primary focuses on women ability to show and maintain their equality through their own action and choices. Liberal feminist argue that society holds the false belief that women are, by nature, less intellectually and physically capable than man; thus, it tends to discriminate against women in the academy, the forum and elsewhere. In the context of Nepal, there is discrimination between boys and girls in education sector because their parents do not want to invest money on their daughters' education.

Liberal feminist emphasize to create opportunities for women with in the education system. They argue that women also have equal chance to be educated in the same way as men. It believes that “Female subordination is rooted in the so called public world” and they work hard to emphasis. This inequality of men and women can be eliminated through political and legal process (Thapa, 2012).

Women Empowerment

Women empowerment refers to the creation of an environment for woman where they can make decision of their own for their personal benefits as well as for the society. Moreover, increasing and improving the social, economic, political, and legal strength of the women, to ensure equal- rights to women, and to make them confident enough to claim their rights, such as:

-) Freely live their life with a sense of self-worth, respect and dignity,
-) Have complete control of their life, both within and outside of their home and workplace.
-) To make their own choices and decisions.
-) Have equal social status in the society.
-) Determine financial and economic choices
-) Get equal opportunity for education.
-) Get equal employment opportunity without any gender bias
-) Get safe and comfortable working environment.

Women empowerment which is somehow linked to empowerment of women is topic of high importance in the recent time for the overall developments of the country. Entire nation business communities and groups can benefit from implementation of progress and polities that adopt the nation of the women

empowerment, empowerment of women is one of the major procedural concerns while addressing human right and developments. The human goals and other credible approaches aim at the point empowerment and participation of women's to overall developments of nation. (Khatiwada, 2012).

Feminist Theory

Feminist theory, due to **Susan Faludi** is the extension of feminism into theoretical or philosophical discourse. It aims outgrowth of the general movements to empower female. Feminism can be defined as a recognition and critique of male supremacy combined with effort to change it. Feminism is theory that men and women should be equal politically, economically and socially. This is the core of all feminism theories. Bell Hooks (1994) states "feminism is a movements to end sexist oppression". Feminism is no single and generally recognized meaning but its common ingredients is that women suffer from common social injustice because of this sex. Many people incorrectly believe that Feminist theory focuses exclusively on girls and women and that it has an inherent goal of promoting the superiority of women over man. In reality, feminist theory has always been about viewing the social world in a way that illuminates the forces that create and support inequality, oppression, and injustice, and in doing so, promotes the pursuit equality and justice.

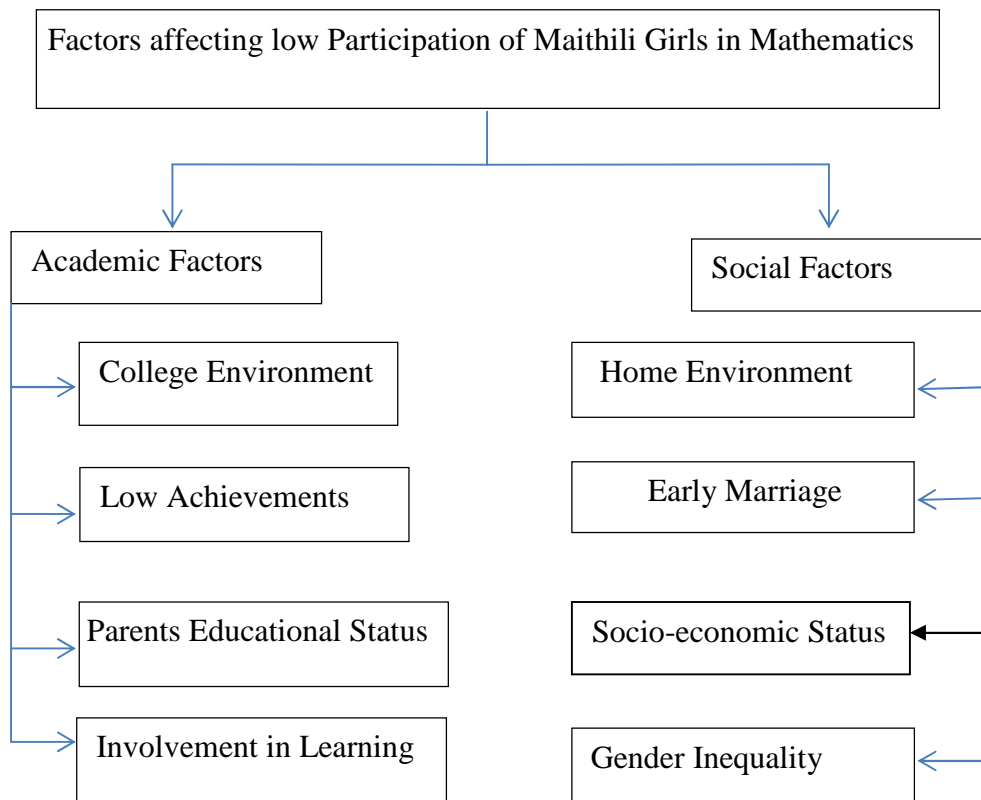
That said, since the experiences and perspectives of women and girls were historically excluded from social theory and social science, much feminist theory has focused on their interactions and experiences within society in order to ensure that half the world's population is not left out of how we see and understand social forces, relations and problems.

Most feminist theorists throughout history have been women; however, today feminist theory is created by people of all genders. By shifting the focus of social theory away from the perspectives and experiences of men, feminist theorists have created social theories that are more inclusive and creative than those which assume the social actor to always be a man.

Conceptual Framework

As discussed above related literature, participation of Maithili girls student in mathematics at higher secondary level may depends under different variable.

Generally participation of Maithili girl's students at higher secondary level is very low. Especially the Maithili girls influence from teaching learning process, home environment, social environment, social variable and attitudes towards mathematics. Under teaching learning process teacher qualification, interest of learner's, exception of teacher, views and believe of teacher Maithili girls participation were discussed on the following framework:



(Fig: Factors of Low Participation of Maithili girls in Higher Secondary Level)

This conceptual framework depicts that there are mainly two causes of lower participation of girls in higher secondary level. The academic factors include: attitude of girls, school environment, parents education etc. Similarly, the social factors include home environment, household work load, and low socio-economic status.

Academic factors are those factors which are related to the school environment and instructional procedures. Many Maithili girls are underestimated by the school and they are treated as weak and dominated on the basis of mathematical achievement. There seems to be unfriendly environment in the school for Maithili girls. Teachers have biasedness regarding boys and girls. Their perception and attitude toward Maithili girls is not positive and supportive. Most of the Maithili have low academic achievement and this is directly or indirectly linked with academic factors as well as socio-economic factors. Their anxiety and attitude towards mathematics

are the causes of low achievement. This ultimately linked with the cause to participation in mathematics education in higher level. The dropout rate of Maithili girls in basic level is very high (District Education Office Morang, 2016). Especially, Maithili girls are very poor in classroom interaction and constructive learning because of their attitude toward school and the classroom. They hesitate to response to the teacher as well as to interact with their friend.

On the other hand, social factors are those factors which are related to the social and home environment of the students. Low socio-economic status of Maithili girls is one of the most prominent causes of low participation in mathematics at higher secondary level. They need to struggle for the hands and mouth. They do not have any support from their family members for their empowerment. Thus, they become nervous for their study and they dropout the school. Maithili community is not highly cultured. Most of the parents are not concentrated towards their daughter education. They only focus to make their son as doctors, engineers so that they can get more dowry (Daijo). Maithili community considered that to have daughter is their misfortune because they need to pay huge amount of money for the dowry in their marriage.

Early marriage is another causing factor for the low participation of girls in higher secondary level. Maithili girls are compelled to marry in their early life. Their parents are afraid from the money they need to pay for the dowry. Maithili girls do not see any future through education so that they do not have positive attitude in mathematics.

Chapter -III

METHOD AND PROCEDURES

Methodology is a scientific approach, which deals with the systematic procedures of collecting data and use of appropriate research method. It presents the logistics of the study. It describes the design of the plan and the procedures of the study, which are able to be carried out to achieve the objective of the study. This chapter explains research design, selection of study area and case respondents, tools for data collection, data collection procedure and data analysis and interpretation techniques.

Research Design

This is the case study about factors affecting low participation of Maithili girls at higher secondary level. The qualitative approaches were adopted in this study to analyze the data. The nature of this study is qualitative because qualitative information were collected and analyzed within the circumstances of the research problem.

Selection of Case Respondents

The respondents of the study were Maithili girl students, their parents and mathematics teachers who were selected purposively. The total numbers of case respondents are five from which three girl students were studying mathematics at higher level and two girl students were studying other subject but studied optional mathematics at secondary level.

Tools

One of the most important parts of the study is data collection. Every aspect of the study can be analyzed and studied on the basis of data techniques. The outcomes

and validity of this study depends upon the techniques of the data collection. There are many tools for the `qualitative research to get the information from the people above their experiences, ideas and believes. In this research the data collection tools are observation form, interview guidelines and focus group discussion.

Interview Schedule

Interview is one of the methods which is most commonly used to collect primary data. It is the means to express internal thought, interest, concept and thinking of a person. It is tool to find out experience internal thought of person according to their acting, looking and facial expression.

The interview schedule was developed in semi structured form which has been shown in appendix I, II and III. The interview was conducted among 5 girl students, mathematics teacher and parents of sampled girl students to find out the participation of girls at higher level. The interview schedule helps to find factors that affect participation of Maithili girls at higher secondary mathematics education.

Observation Form

The class observation form was developed to observe the girls participation in classroom practices. The researcher used observation guideline to record the activities of the selected key respondents in their class using observation form. The observation of this study was took on the natural setting researcher watched, asked, listened and interacted the essential data from the informants in the natural setting using the observation form shown in Appendix IV.

Focus Group Discussion

A focus group discussion is a small group discussion guided by a trained leader. It is used to learn more about opinions on a designated topic and then to guide

future action. In this research, firstly, parents and teachers were separated into two groups and in different place. The focus group discussion was conducted in different days with teachers and parents. Researcher started to discuss about case and asked questions and noted answers replied by parents. Researcher also called teachers in different college to gather at Gograha Higher Secondary school to discuss about their problems and asked questions and noted answers given by teachers. The agenda formed by researcher with the help of expert was disseminated to the teachers and parents separately. The view of participants were (collected) noted by researcher himself.

Data Collection Procedure

After selecting Maithili community at Morang district purposively, the researcher visited the sampled school/college, Maithili girls' students, their parents and mathematics teacher with instrument to collect data. Before administration of tools, researcher met the concerned people and explained the purpose of the study in detail. Once they agreed to allow the study to be carried out the researcher arranged the date and time for administering the tools. The data was collected by administering the interview schedule, observation form and focus group discussion among the sampled students, their parents and mathematics teacher. With the help of unstructured interview schedule, the interview was conducted with Maithili girl student, their parents and mathematics teacher at their home.

With the help of observation form, the researcher had observed the class for 10 days regularly. For this purpose, the researcher took permission letter from the Central Department of Education, TU, Kirtipur and handed over the letter to the Principal of selected colleges.

Focus group discussion was carried out to collect the information by group discussion with parents and mathematics teacher separately. Then the information was noted to analyze them and to find out the conclusion of the research study.

Data Analysis and Interpretation Procedures

The collected information at first was categorized according to the category of respondents and different themes were given in the text of interview, observation notes and focus group discussion. These themes were considered as a code and the similar code version of respondents were collected together and explained in their own perspectives. Home environment and other details were obtained by observing home and about the school environments, interviewing with girl's students, their parents and mathematics teacher.

The information collected from focus group discussion, interviews were analyzed descriptively. Crossmatch and triangulation was also adopted to maintain the validity of the information.

Chapter- IV

ANALYSIS AND INTERPRETATION OF DATA

This is a case study related to the causes of low participation of girls in mathematics of Maithili community at Morang district. The main objective of this study is to explore the causes of low participation of Maithili girls in mathematics. The main tools used for this study are interview schedules, observation form and focus group discussion. The main respondents of this study were the Maithili girl students at Higher Secondary level and their parents and mathematics teacher of the sample students. This chapter includes the analysis and interpretation of data.

Respondents A

Respondent A was Priya Yadav and she was 18 years old she is studying in grade XII. She was born at Rangeli ward no 04 of Morang district. She has eight members in her family having one brother and four sisters. She is smallest daughter. Her mother and father are middle in age. Her parent's occupation is agriculture.

Her house is situated at the Rangeli municipality of Morang district. She doesn't go to tuition due to lack of economic condition and also lack of time. Her family members don't sent alone at the town and also college. She goes to college with her friends. Her family thinks girls are very confidential for the society and their family too.

Respondents B

Respondent B is Rinku Mandal of 20 years old studying at grade XI. She was born on Amardaha ward no. 2 of Morang district. Her family has seven members out of them two are brothers and three are sisters. Her sister is reading at grade X. Her father is literate as well as her economic condition is rich. She has got married at the

age of 20 years old when she was studying at grade X. It seems that her father won't want to give more higher education. They follow Hindu religion. Nowadays, she lives at Amardaha with her husband.

Respondent C

Respondent C is Rabri Thakur, seventeen years old, studying at grade XII. She was born at Itahara of Morang district. Her family is joint family. Her father is a primary teacher. Her father's education is PCL. Her mother is housewife and works for her house. She has two uncles and aunty. Both are farmer. They depend on the farm only. Her father's economic condition is medium.

Respondent D

Respondent D is Sanju Kumari Sah of 20 years old studying at grade XI. She was born at Pathari-01 Morang district. She has 10 members in her family. Her father is a business man and her mother is a housewife. She has 4 sisters and 2 brothers. Out of them, all are studying. She is an elder daughter. Her economic condition is medium. There is no difficult to pay school fee and also college fee. She was very laborious but she didn't have time to practice more. When she came from college, she helped her mother at house then she went to her Kirana Pasal to help her father. Her family follows Hindu Religion and use Maithili language at home.

Respondent E

Respondent E is Sony Jaiswal 17 years old studying at grade XII. She was born at Darbhesa, 05 of Morang district. Her family has five members. In her family, her uncle studied up to +2. She said that she had to do all works at home. Her mother thought that daughter must do household work because when she goes to another family, she must know to cook all type of food. Her mother said that education is not

important for girls. She was very laborious for study. She studied at home by finishing all works of house.

She was very skillful as she knew how to sew clothes and make sweater as well as woolen clothes. She helped her family by sewing clothes and helping her family to generate income. She said that she liked to go to finish the work with her mother and also to work at tailor. Factors affecting low participation of Maithili girls are analyzed on the basis of following variables:

-) Home Environment
-) Parent Education
-) Involvement in Learning
-) School/College Environment
-) Socio-economic Status
-) Gender Inequality
-) Low Mathematical Achievement
-) Early marriage

Home Environment

Home environment plays vital role for learning. Children learn how to behave, how to respect elders and how to cooperate with others. This study includes occupation of the family, economic condition and learning opportunities of sampled Maithili girl's students. The following versions support the effect of home environment about Maithili girls' mathematics achievement:

Our parents forced us in farming and household works and then only to go to college

Respondent A

Parents love to son more than daughter because they think their son keeps on their house improve but girls can't as they go to other family. Respondent B

My daughter does not get enough time for study at home because she has to work and help her mother in household works.

Our occupation is agriculture and our economic condition is poor so our children must work. Parents

There is no good environment for girls to practice at home. They depend on classroom only and hence they are weak. Teacher

While analyzing the above versions, it was found that the family of Maithili girls had poor economic conditions and their occupation was agriculture so that Maithili girl students had to work hard physically and hence they did not get any extra time to study. They had to look after their brothers and support to send to schools. For learning purpose too, they had to depend on classroom only. Hence, it led to the Maithili girl's low participation in mathematics learning.

The researcher observed home of sampled Maithili girls student and found that their family was simple and their family members were working in the field. None of the family members were sitting without work. There is no special separate reading room for girls in their houses.

In classroom observation, Maithili girls were not punctual because they had to work at home before coming to college. They did not show their homework to teacher as they got no time to perform at home. More than fifty percent of Maithili girls were absent in the class due to household works at home. Parents did not think to give opportunity to study rather they always tried how to marry them and would become free from their burden.

The parents view obtained from focus group discussion are presented as:

“We are very poor. No one look after us. We are not able to send our children for higher education because they have to work and help us at home. They should look after their young brothers and do household works.”

By supporting this view other parent said,

“We have no any job. We have to work in the field for survival. There is no option to work and eat. We like to give them education, but it is our obligation to ignore it for the work.”

The researcher concluded that there was low participation of girls in education due to poor economic conditions, agriculture occupation and bad learning opportunity for girls at home. Walberg’s theory of educational productivity claims that good home environment increases educational productivity but Maithili girls have no good home environment, so it causes the low participation as well as low enrollment in mathematics.

Parents Educational Status

Parents Education helps the children to get good education and make them economically sound. It also enables them to live easily in society and face challenges. This study includes parent’s academic qualification, their interest and awareness to educate daughters.

“Daughter must have the knowledge of household works so that they will be able to handle their house after marriage.”

Parent A

“We have not got any formal education but we can count money and do transaction. Girls most have the knowledge of household works and the business as we have adopted.”

Parent B

“My parents are illiterate so, they cannot guide me at home as well as they cannot provide me adequate opportunity to practice at home.” Student C

“Parents’ education plays important role for the all-round development of children. Therefore, I think parents’ education is also affecting factor in mathematics achievement of girls.” Teacher

While analyzing the above mentioned versions of the parents, it was known that, parents had traditional belief and primitive thoughts which was a matter of hindrance for the overall development of the girls. It was due to lack of parent’s education that they had not taken formal education. Parents had not better attitude towards girls and they are not interested and aware to educate girls. While observing the parents at home, it was not seen teaching or supporting daughters in study due to lack of education in them.

In Focus Group Discussion, parents expressed their views that they could not give higher education to their daughters because they were worried how to marry them and be aloof from their burden. Parents said, “Girls are transferrable assets so why to invest them a lot being they are not ours”. Hence it can be shown that parents were not aware and interested to motivate for creating learning environment to their daughters.

From above view of parents, students and teachers it can be concluded that the parents of Maithili girl’s were illiterate, their interest was to marry daughters at the earlier stage and they were not aware to give higher education to their daughters. According to Walber’s theory of productivity, parent’s education enhances learning environment at home and they create pressure and support to their children in education hence illiterate parents causes low participation of girls in learning.

Similarly, feminist theory also support in these evidences stating that women are bounded on hose hold works and they are not able to expose their capabilities due to poor support from their family.

Involvement in Learning

Girls engagements in household affairs affects very much in their educational development. The socio cultural structure like early marriage in the society has given more household responsibilities to girls than boys. In our society, girls are involved in household works. Their task is to help mother in cooking, cleaning and taking care of youngsters. Even a girl who goes to school is not free from such responsibilities. It makes girls more tired so that they cannot get up early. Due to this, they are unable to manage their study. This study includes household works, study room and early marriage status in the family.

I cook food in the evening and take care of my elders and younger.

We were also involved in household activities. In my house, there is discrimination between my brothers and me.

My brother has adequate opportunity to study at home but I could not get and my parents are in favor of their sons.

Student

We have no separate room to study at home.

Girls Students My daughter is matured so it is being late to marry soon. My daughter is already married.

Parents

Especially, in our community, there is great importance of boys than girls. So they prefer to have boys in their life. So most of the girls are engaged in household work as a result they don't get enough opportunity to study at their home.

Teacher

While analyzing the above versions of the respondents, the girls were found suppressed in different activities besides their studies. So, their mind was always equipped with some kind of worries. Such worries and anxieties made them unable to pay full attention towards the study. Therefore, they were lacking behind in their performance in comparison to boys because boys sat free from the household activities so they often had leisure time to freshen their mind, which increases curiosity in study to make their performance better. The girl students do not have separate study room for study. Hence, the researcher found that there was not better opportunity to study at home for girls due to early marriage, household works and separate study room.

In the observation, the girls were doing household work. When the researcher went to Rabri's house, she greeted first and went to kitchen for preparing tea. She was looking after her young brother. There was not separate study room. In the classroom observation, she was absent. It was due to household works which she could not leave. She did not perform homework as she got no any extra time to finish it. She was unable to manage her time for study at home. It can be said that there was no good home study opportunity for girls at home which caused the low participation of girls in higher education.

In the Focus Group Discussion, parents said, "As soon as possible our daughter gets married they start their own family lives. The parents further said, "The society has given responsibility to them to do various household works. They have to perform those works wherever they go. They do not have separate study room. All our members watch television and sleep in the same room."

From the above discussion, the researcher concluded that early child marriage, household works and no separate study room had severely affected home study

opportunity for girls and it led to the lower participation of girls in mathematics learning. Feminist theory suggests equal opportunities for girls to study at home so that they equally participate in learning as that of boys. However, this theory is contradicted to this study.

Home creates a first learning environment to the students. The economic status of family influences to the achievement of the students. The family of high economic status can afford high cost to buy books, copies and take tuition classes. Family with traditional agriculture always force to their children to work in the fields than to study. Parents do not provide learning opportunities to their children. Parents become happy when their children work hard at home.

School/College Environment

College environment reflects belief and tradition of school community. Scholarship to the marginalized group helps to participate more number of students in education. The college environment should be educational and peaceful for learning. College environment should be mixture of social value, culture, friendly behaves, safety and organized structure. The college environment plays the important role to decide the future position of the students and the life of the students. The teaching activities and extracurricular activities regularity and discipline are important for good achievement of the result of the students. This study includes scholarship to the students, extra class and dominance of language culture at home and college of Maithili girl students.

Parents do not invest a lot of money on our education for higher level.

We are from Maithili community, so it's hard to write and read the text in

Nepali and English language.

Girl student

The duty of boys at home is only study but girls don't study at home except college.

There is no discrimination between boys and girls in school. We encourage them equally to study.

We have not provided extra classes for weaker students. Math Teacher

We do not know about the scholarship for our daughter at colleges.

Parents

While analyzing the above versions of the respondents and the Math teacher, it was found girls got suppressed in different activities besides their study. Parents didn't invest a lot of money to their daughter's education because of they thought that their daughter went to her in-law house and they should know only different household works. In colleges, there was not discrimination between boys and girls to bring learning environment but there was not provision of extra class for weaker students in college. Yadav girl students had to speak other language in college which was difficult for them. Parents did not about scholarship scheme provided by the colleges.

In the observation, it was found that there was not provision of extra classes. At home, local language was used which made difficult to understand other cultural languages at college for Maithili girls student.

In the focus group discussion, parents said, "There is no special scholarship program in the college. Scholarships are given to their relatives only". Another parent said, "We cannot let our children go college every day because we have a lot of works at home." In the discussion, mathematics teacher said, "There is provision of scholarship for students of marginalized group but guardians do not know about it due

to ignorance.” The mathematics teacher further said, “We have no special extra classes for weaker students and they have to prepare their exams on the basis of classroom study. In colleges, there are no any different behaviors between girl students and boy students. Teachers encourage girl’s students and their guardians to come ahead in the society.”

From above discussion, the researcher concluded that the college provided scholarship for students like Maithili girl but the parents were not aware about this. There was not provision of extra classes for weak students in college and also their local language brought difficulty in the college as there was another language for communication. According to Walberg’s theory of educational productivity, learning environment has great role in girl’s participation. Parent’s education and their support to children, teacher’s academic qualification, scholarship and other helpful methods are useful for success of students. Hence, no scholarship awareness, no extra classes for weak students and difference in language between college and home greatly affected the learning environment that finally caused the low participation of Maithili girls in mathematics learning.

Episode

Grade XII was selected for observation and the time period was ten a.m. After the researcher entered the class, the student stood up and said "Good morning sir"

The researcher told them to sit down. It was noticed that the school environment was respectable to the teacher. There were 50 students in a class. Among them five students were there from Maithili community. Teacher wrote one problem related to coordinate geometry i.e. finds the equation of circle passing through the origin and the radius is 25 units. The teacher started to solve the problem on the white board and the other students expect Maithili girls were actively participated in the teaching and learning activities. But they were sitting in the class passively. Students were engaged on copying the blackboard and asked the question to the students, do you understand? If no he repeated the above process again and gave another problem to the students for individual practice. Teacher just moves among the student and observed their activities and did not any direction for this problems. He just looked the mistake d of the students on their copy. The teacher was not students oriented and he did not considered the individual need of the students. He just taught the lesson and went out from the class.

Socio-economic Status

People in the society show poor interest in learning. Majority of society does not encourage the girl students to participate fully on education. Although the government has signed number laws to assist in improving the education of girls throughout Nepal, the implementation of laws would take time. Girls still face number of challenges to gaining social, political and economic equality with boys.

Discrimination against girls starts from the moment they are born. Sons are seen as bringing prestige and honor to the family whereas daughters are often consider only another mouth to feed. The girl is treated inferior to her brother. At a young stage, the

girl is expected to perform many works. Girls are so educationally so disadvantage as compared to boys. This study includes social cultural beliefs of society.

In school and college maximum girls are from the middle class family of different cultural background, so they do not get the suitable time for reading mathematics due to which they select the other subject from options. Math Teacher

Our society unequally treats boys and girls.

Female has the inferior place in the society.

No prestige is given to the female mathematics teacher. -Girls Students

While analyzing the above expressions of Math Teacher and Girl students, it shows that our society have most illiterate people. The illiterate people thought higher education was only for boys not for girls because the works of girls were only household. Their parents did not like to make male friends. Female were forced to engage to do household works by their parents. Her society had traditional culture. This culture created discrimination between son and daughter. Due to the discriminatory behavior, female students have to face so many problems. It was found that girls had no significant prestige in the society.

In Focus Group Discussion, parents said, “If our daughter go outside and talk with other people, then other people start to talk about our daughters and that may affect their future married life. Our daughter can’t go outside as son and they have to stay inside house only.” The mathematics teacher said, “Culture of the society affects the participation of girls in education. People do not want to give higher education for girls as boys. People treat girls differently and they think girls are transferrable from one family to other family. Societies itself discriminate between girls and boys. Boys are placed in superior condition than girls.”

From the above analysis, the researcher found that there was influence of society with negative social cultural beliefs, negative practices and negative attitude. According to sex role theory, the difference between boys and girls is created by society and cultures. Girls lose confidence of doing well in mathematics and they do not take mathematics in higher education.

Our society is a patriarchal society. Son is given more importance in our society. A birth of female child is taken as social evil and they are made evil. Dowry system is practiced in our society as a culture. It was developed to give something with bride to the groom during marriage. But nowadays it is being compulsion and forceful. This study involves how dowry system of Maithili community affects the participation of Maithili girl in higher education.

Higher education makes higher dowry.

We should not spend on higher education in spite of we save money for her marriage.

-Parents

Due to dowry system, our parents do not give us higher education.

Parents think us zero return assets.

-Girls students

Dowry is going high day by day and it is related with higher education.

Dowry is a great cause to reduce participation of girls at higher education.

-Math Teacher

The above expressions of the parents and math teacher concluded that, in their society, dowry affected girls to get higher education. The parents did not give higher education to their daughters because they would have to pay a lot of dowry to their daughter marriage like as money, furniture and so on. It was believed that higher

education of girls make higher dowry. So parents thought they did not invest money to girls education they saved money to their daughter marriage.

In Focus Group Discussion, parents said, “Due to dowry system, girls are married at earlier stages. If girls are given higher education, then boys demand more dowries which we cannot afford due to our low income.” Parents further said, “Whatever the education given to the girls, they should cook food, make houses clean, washes clothes and satisfy their family members. So, what is the use of higher education?” Mathematics teacher said, “Economic status of Maithili family is very low. They cannot afford high dowry with their daughters. So, they manage to marry their daughters very soon with those who demand very less dowry.

From above discussion, the researcher was clear that Maithili girl students were greatly affected by dowry system. Due to demand of more dowries with more education, parents were afraid and they quickly married their daughters with lower education to be aloof from burden economic crisis. According to feminist principle, education is a neutral cognitive process and it either functions as an instrument facilitating student’s integration and conformity into the logic of the present system. This principle is not matched in college and community. Hence, the researcher concluded that dowry system caused the low participation of Maithili girls in higher education.

Gender Inequality

As gender equality is the equal treatment of boys and girls in the same environment to provide education and other opportunities, this study includes treatment behavior of Maithili girl students as compared to boys in Maithili community.

In our society, girls and boys do not get equal opportunity.

Parents discriminate between son and daughters.

Students

Guardians admit their sons in the school and ask about their study time to time. But they are not eager about their daughter's study.

No any guardians are seen worried about their daughter in study. *Teacher*

Sons are our prestige and they have weightage in the society.

Girls are only fear to us and we would be light when they get married.

Parent

While analyzing the above versions of the respondent, the researcher concluded that society did not give equal opportunity to boys and girls. Parents discriminated girls from boys and they treated them differently. Due to gender inequality, girls did not take higher education as that of boys.

In Focus Group Discussion, parents said, "We cannot give equal opportunity daughter and son because son is our prestige and they look after us but daughter go to other's home so they cannot be equally treated." Mathematics teacher said, "There is discrimination between son and daughter in the family. Parents think their daughter should be morale and they are not allowed to go out as son. Parents are very nervous about their matured daughters and they are eager to marry them soon rather to give education."

From the above discussion, the researcher concluded that Maithili girls were treated differently and they were made backwards by giving priorities to the boys. Feminist community provide adequate opportunity to female and equality building and trusting environment in which all members are respected and have an equal

opportunity to participate at its core. However, this study does not show the equality treatment between boys and girls in the same environment. This gender inequality treatment caused low participation of Maithili girls in mathematics learning.

Since our society is in developing phase, more preference is given to son than daughter. In this study, the researcher tried to study the behavior given by parents towards their daughters in case of education and independency.

The duty of a girl is to involve mostly at household work.

The girls' higher education causes high amount of dowry.

The girls' bad behaviors let their parents head down in society.

Sons can go free outside and show their personality in the society. Parents

When our parent looks us, their face is not always smiling.

Our parents always said us why to get more education that it is sufficient to be expert in household works. Students

From the above information it can be analyzed that parents discriminated between the sons and the daughters in family and societal behavior. They hesitated to provide higher education to their daughter but not to their sons due to more demand of dowry in future. It was also seen that if girls alone went outside home did any behavior of their own, then it would be the bad behavior and that would make the parents head down.

In the observation, it was seen that Maithili girls were not given to go outside without permission of father or brother. They went outside with one male member of the family. The girls went to college with the help of one male family member. The

researcher could not find Maithili girl student in the society with independent activities.

In Focus Group Discussion, parents said, “We love our daughters but we cannot give higher education as they go to other’s house. We make them expert in household works. We think we should give more education to sons because sons have to manage and lead the family in future.” Mathematics teacher said, “There is discrimination between sons and daughters in the family. Parents think their daughters should be morale and they are not allowed to go out as son. Parents are very nervous about their matured daughters and they are eager to marry them soon rather to give education,”

From the above discussion, the researcher concluded that daughters were dependent and they were given less priority in terms education than sons. Sex role theory provides a base for investing stereotypes and attitude of parents. Hence different and injustice behavior shown by parents towards daughter caused low participation of Yadav girls in higher education.

According to Feminist Pedagogy principle, college develops a community and equality of growth building a trusting environment in which all members are respected and have an equal opportunity to participate. Mathematics teacher said that there was no any discrimination between boys and girls students in college and they also encouraged them equally to study. From observation, it was found that girls and boys in the college received education and instructions equally. Girls were given scholarship for education.

Hence, from the analysis, the above factors generally caused low participation of girls at higher level in Mathematics. So, it was concluded that all the above

discussed factors were responsible to lead them low participation of girls at higher level in mathematics learning.

Low Mathematical Achievement

It is myth that girls cannot study mathematics. They should be engaged in the household work such as bearing and rearing children. Most of Maithili girls are dominated by such stereotype myth, because of many direct and indirect factors; they do not have satisfactory academic achievement. They are always backward in case of achievement. Lack of interest in mathematics and not getting supportive environment in school and home is causing factors for low mathematical achievement. School teacher does not give proper attention towards Maithili girls believing that they can't study mathematics.

Women empower theory states that there should be equal and harmonious opportunity for the women to develop internal capability. Every girls have capability to enhance their educational achievement and their do not see such possibilities in them. So they are neglected and ignored. Consequently, there is huge loss of women power.

Maithili girls hesitate to interact with teachers and with their friends due to language problems as well as social behaviors. They do not participate actively in teaching learning activities in classroom so that, they have poor mathematical achievements. Poor mathematical background leads them to dropout in lower level. As a result they are unable to join to higher level. Thus, low mathematical achievement is another causing factor for low participation in higher level.

Regarding this, the researcher asked question to the respondent why is your mathematical achievement is low. Edited versions of their answers are as follows:

“I was very good in mathematics, when I was at lower level but when the level increased gradually the achievement decreased because of household workload and responsibility in the family.”

Student

If teacher and school give us equal opportunity to learn as other we can do better. Teachers discriminate us and do not pay proper attention towards us.

Students

From above view of students it is clear that there are two main causes of low achievement in mathematics. First, lack of opportunity and facility to study at home. They need to work hard for whole day for their hands and mouth. In Maithili community, to teach daughter is the loss of their time and money. So that their parents want that they get married as soon as possible. Thus, these causes lead low achievement in mathematics and consequently low participation in higher education.

Perception of teacher and school regarding Maithili girls is not supportive. Teachers are biased regarding castes, community, mathematical achievement as well as language. They do not pay proper attention for Maithili girls. Regarding this matter mathematics teachers were interviewed about why there is less number of Maithili girls in higher level?

Generally Maithili girls are not concentrated in their study. Due to societal influence, they prefer to have their settled life. That is they dropout from the school.

Teacher

Actually we, teacher provide equal opportunity to all students in the classroom. But in my experience Maithili girls are less interactive with the friends and teachers. They feel weak and hence they become low achievers in mathematics.

Teacher

From the above view of mathematics teacher it is clear that one of the problems of Maithili girls is to be passive in the classroom. They are less interactive and hesitate to ask question to the teacher if they don't understand any concept. Constructivist theory suggests the classroom environment should be very friendly and interactive so that the learner can feel free to learn and develop the ideas to be learned.

According to women empowerment theory, for women, they are responsible themselves to achieve the goal they have set. Failure leads students to the dropout situation. Thus, Maithili girl's attitude is responsible for their low achievement in mathematics.

From the focus group discussion many of the participants were supporting the theme that societal influence and parent's education is the main cause for low participation of Maithili girls in higher level. On the other hand, girl's attitude toward mathematics is another cause for low participation.

Early Marriage

There is widespread consensus that child marriage violates the rights of girls, limits their school attainment, learning, and future earnings, and has negative impacts on their health and that of their children. Child marriage clearly contributes to poverty. And yet the practice remains highly prevalent despite efforts by many developing country governments to discourage and even outlaw the practice, among others through reforms of family law.

The main problem for estimating the impact of child marriage on education attainment is that the decision by a girl (or her parents) to marry early is likely to be itself a function of the girl's education potential. Girls with lower education prospects

for example because they are weaker academically, face smaller expected losses in future earnings and thereby have lower incentives to continue to study than girls who are academically stronger. These girls may be more willing to marry early or their parents may be more inclined to let them marry early. Similarly, girls less interested in pursuing their education independently of their academic abilities may also decide to marry early, and they might have dropped out anyway even in the absence of marriage. In other words, education and marriage decisions are jointly made. It is thus necessary to find instrumental variables that explain the decision to marry, but not education outcomes conditional on the decision to marry, which is not always easy. It is however also important to emphasize that reframing the transition of girls to marriage requires a policy dialogue with religious and community leaders who have a great deal of influence on those issues. Meeting with these leaders to critically examine the causes and consequences of early marriage can help in building support for policies against child marriage. In some countries, this dialogue could be part of broader discussions on family law reform.

Most of the respondents in my research were married Maithili girls. They were married in early age due to different reasons. There are so many girls Maithili community who have left school due to early marriage. Early marriage means to close the door for higher study and open for household responsibility. Why it is difficult to further the study if the girls got married in early age? Some of the views of the respondents are as follows:

“Well when we get married we need to drive house and to be concentrated to fulfill the desire of family. So it’s very hard to continue our education.” *Student*

“If the husband is not supportive then it is very difficult to go to college. Also our society does not have good perception to go college after marriage. My many friends gave up college after marriage.”

Students

From the above view of girl students it is clear that it is very difficult to continue their further education because of the early marriage. The traditional customs are there in one side and expectation of girls on the other. Conflict between this two results the poor education of Maithili girls. They should be engaged into the household work, so that they are unable to provided time for their study. As the result they should stop their further study. Early marriage is one of the hindering factors for education of girl. Few husbands are literate and they only know the importance of education in life. So, they encourage their wives to continue their education but their guardians and society do not accept this.

Regarding this matter school teachers were interviewed. How early marriage affect girls education? They responded as:

“Early marriage is one of the prominent problems of low participation of Maithili girls in higher education because they are compelled to engage in household work. They are force to rear and care the children.”

“After marriage most of the Maithili girls hesitate to go to the collage.”

Teacher

From the above view of mathematics teacher it is clear that Maithili girls unable to joined to higher education after marriage. They need to be engaged in their family. Many Maithili girls hesitate to go to the college after they got married because peer and aptitude of school. Many Maithili girls are compelled to marry early age due

to their parents and dowry. Thus, early marriage is another causing factor for low participation in higher education.

On the same topic respondents' parents were interviewed, why do you prefer to marry your daughter in early age?

“As soon as we send them to brides' home, the most challenging responsibility of parents will over.” *Parent*

“If we spend time by educating daughter, it is very difficult to find the bride in time. We afraid from the dowry we need to pay for them.” *Parent*

From the above view of parents it is concluded that they are not concentrated towards their daughter's education. They just wanted to escape from their responsibility to educate their daughter. They feared from amount of money they need to pay as dowry. Illiteracy of parents is one of the causes of early marriage of Maithili girls.

In sum up, early marriage directly affect the further study of Maithili girls. Early marriage is one of the misfortunes of Maithili girls because they cannot continue their education. Many stakeholders must be conscious about this matter and should take an action from the government side.

Chapter -v

SUMMARY, FINDINGS, CONCLUSIONS AND IMPLICATIONS

This chapter presents the summary, findings and conclusion of the study.

Some recommendations based on the findings are made for further study.

Summary of the Study

The concept of education is the birth right of every child. Early mathematics required a partial basis for its development and such a basis across with revolution of more advanced form of society. Mathematics is essential for understanding every discipline. The development of mathematics education in Nepal goes a back to the Vedic period. In the history of mathematics, we can find many male Mathematicians such as Euclid, Archimedes, Apollonius, Kepler, Pascal etc. but it is very difficult to find female mathematician. Gender disparity has been a chronic problem in education ever since Nepal launched planned efforts for development of formal schooling. Poor economic condition, early marriage, household works, care of siblings, grazing cattle, engagement in wage earning activities and gender discrimination are the major discouraging factors to girls education, considering the lower participation. The literacy rate of male is higher than the female. The low rate of female education is due to many causes. Maithili casts are forward but their girls are low in higher education. This study would help to bring positive attitude in equal opportunity in learning mathematics. The primary objective of this study is to describe and analyze the causes of low participation of girls in mathematics at Bachelor level. This case study is quantitative as well as descriptive. The tools of the study are interview, observation and focus group discussion. The sample of the study is 5 girl students who are studying at Higher Secondary level. The Respondents said that many factors of low participation in higher education. Out of them the researcher concluded that the

factors are home environment, parent education, home study opportunity for girls, learning environment at home and school, influence of society, dowry system and gender equality which affects the participation girls in higher education.

Girls are being deprived from education due to discriminatory laws on properly rights. They begin school very late and withdraw with the on the age of puberty. Parents do not see the benefits of girls' education because they are given away in marriage to serve the husband's family so, deprivation from education due to child marriage is another impact of discriminatory laws. Due to practice of child/early marriage, girls do not get education at their parent's home and after marriage they have to take care of household works at her husband's home by giving up education.

Findings of the Study

Researcher asked about poor participation of girls at Higher Secondary level. She said that the main causes are less educated person of their family and most of person think of no necessary to give education to girls because girls to work at home with her mother.

Finally, the researcher indicated that Maithili girls were in poor as well as medium economic condition. The main occupation of Maithili was farming and they depended upon the agriculture. The most of time, they worked in the farm as well as household work. Due to the lack of knowledge about the importance of education, Maithili girls were backward from higher education. They were engaged on farming and household works. As a result, the children also engaged in household works so they had no sufficient time for the study at home. Maithili girls student were dependent upon the school study only. They were tied with their cultural boundary as a result they could not decide themselves as their will. They did not have sufficient

time for the study due to which they could not more so they were poor in mathematics and so on. Most of Maithili girl students faced economic crisis. They were not financially capable of affording their further education. If they have medium economic condition but the people don't want to take higher education to their daughter due to their culture. Maithili girl students learned everything in their culture which was not matched at the school culture. There was cultural discontinuity at home and school. Finally, it can be said that due to the culture of Maithili large family size, poor economic condition, illiterate family, lack of sufficient time at home for do extra activities for mathematics and dominance behavior by their neighbor created the low participation in mathematics.

This is a case study of Maithili community related to causes of low participation of girls in mathematics at Bachelor level. The purpose of this study was to identify the causes of low participation of girls for higher education. The researcher used the interview schedule and observation tool and focus group discussion for collection of data. The researcher found major findings from this study as follows:

-) Maithili girl's home environment was very poor so that their participation in mathematics was very poor.
-) Maithili girl's parents were illiterate and their interest was to marry daughters at the earlier stage than to continue study and they were not aware to give higher education to daughters.
-) Due to early child marriage, household works and no separate study room, Maithili girls could not do better in mathematics.
-) There was no scholarship fund, no extra classes for weak students and there was difference in language between college and home which greatly affected

the learning environment and finally caused the low participation of Maithili girls in higher education.

-) Influence of society with negative social cultural beliefs, negative practices and negative attitude caused the low participation of Maithili girls on higher education.
-) The more demand of dowry with higher education caused the low participation of Maithili girls in higher education.
-) Maithili girls were treated differently and they were made backwards by emphasizing boys to develop. This gender inequality treatment caused the low participation of girls in mathematics learning.
-) Maithili girl students were dependent and they were given less priority in education than boys and this biasing behavior of parents towards their daughters cause the low participation of Maithili girls in higher education.

Conclusions

Society as a whole believed that female is mathematically less capable than male. Parents and teachers communicate this belief to the students. Society, home and college do not provide environment to girls to take higher education. They are capable to study mathematics but they are made incapable. Girls come to view their failures in mathematics as evidence that they indeed fell inferior and to view their success as flunks (to fail an exam). This reinforced the belief that they are not capable of doing well in mathematics. Females stop taking advanced mathematics courses in high school or college, believing too difficulties. Girl failure to acquire the knowledge necessary to achieve in mathematics is the matter of construction of positive attitudes towards mathematics. This is due to

-) Lack of home environment where there is poor economic conditions, agriculture occupation, and bad learning opportunities.
-) Lack of parent education and their interest is to marry daughters at the earlier stage and they are not aware to give higher education to their daughters.
-) Lack of home study opportunity for girls by the earlier child marriage, household works and no separate study room.
-) Lack of learning environment at home and college as there is no provision of extra classes for weak students and different in language between college and home.
-) Negative influence of society that girls should not take more education rather they should be expert in household works.
-) Dowry system in which more dowry is demanded for higher qualification.
-) Gender inequality treatment between boys and Maithili girls and they are made backward by emphasizing the boys to go ahead.
-) Discriminating behavior of parents towards their son and daughter giving more priority to son in education as different and injustice behavior shown by parent towards daughters.

Recommendations and Suggestions for the Further Study

In the context of Nepal, many students fail in mathematics and the trend is still in continue due to this, there were the less participation in mathematics. In order to ensure girls' access and participation in mathematics at higher education is low. Some measures were worked out. They include pedagogical change, tutorial support, development and distribution of model females' rosters, interaction between teachers,

parents and students, gender sensitization, incentive, lab and library support, collegial monitoring and counseling and project work to accommodate practical experiences of the girls. These will contribute to making mathematics subjects more enjoyable.

Besides, the study has developed an action plan to address the mathematical specific issues, identified action strategies and pointed out the responsible agency to implement intervention indicatives. These intervention initiatives includes action as well as programs to address socio-culturally oriented gender biased mindset, school based encouragement scheme for girls and those advocating girls' education, school support program and mathematical career expectation programs for girls.

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Appendix I

Interview Schedule for Parents

Name: Religion:
Sex Ward No:
Age: VDC:

1. What is your occupation?
2. What is your economic condition?
3. What is main interesting area of your daughter?
4. Which type of behaviors do you have towards your daughter?
5. Why do not you give higher education to your daughter?
6. Do you think your daughter get enough time for study at home?
7. What is your view on dowry system in your community?
8. Aren't son and daughter equal to give the same opportunity?
9. Do you encourage admitting your daughter in higher level?

Appendix II

Interview Schedule for Mathematics Teacher

Name: Religion:

Age: Sex:

Vdc: Caste:

Qualification:

Training:

The interview with the mathematics teacher would take in the basis of following main topics:

1. Teaching strategies
2. Problem on teaching between girls and boys in different castes
3. Encouragement provided to the girls students in mathematics
4. Area of difficulties in teaching mathematics
5. Discrimination between boys and girls at the time of teaching
6. Social influence on Maithili community.
7. What is the enrollment rate of Maithili girls in your college?
8. Is their provision of female teachers in your college?
9. What is the grade attainment of Maithili girls in your college?

Appendix III

Interview Schedule for Girls Students

Name:

VDC/Mun.:

Place of Birth:

Religion:

1. Which type of family do you belong?
2. Which type of behavior do you get from your family?
 - (i) Discriminating
 - (ii) Non-discriminating
3. How much time do you study at home?
4. Are you single or married?
5. Does marriage life affect any study in your life?
6. What is your view about your culture and language that affect for study?
7. What type of behave did you get from your mathematics teacher?
8. How far is your home from your college?
9. Who encourage you to take higher study?

APPENDIX IV

Observation Form for Maithili Girls Students

The observation of Maithili girl students would take on the basis of following guidelines everyday:

Name of the student:

Address:

Time:

1. Teacher activities with girls
2. Teacher activities with boys
3. Behavior at home
4. Behaviors of parents
5. Home task they have done
6. Social norm towards girl
7. Thinking towards girls at society
8. Classroom management
9. Time to study at home for boys