

**PROBLEMS FACED BY THARU CHILDREN IN  
MATHEMATICS CLASSROOM**

**A  
THESIS  
BY  
BISHWAS GHIMIRE**

**FOR THE PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE  
DEGREE OF MASTER OF EDUCATION**

**SUBMITTED  
TO  
DEPARTMENT OF MATHEMATICS EDUCATION  
CENTRAL DEPARTMENT OF EDUCATION  
TRIBHUVAN UNIVERSITY CAMPUS  
KIRTIPUR, KATHMANDU, NEPAL**

**2015**

**Letter Of Approval**

**Thesis Submitted**

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Entitled

**Problems Faced by Tharu Students in Mathematics Learning at Secondary Level**

has been approved in partial fulfillment of the requirements for the Degree of

**Master of Education.**

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## ACKNOWLEDGMENTS

I express my heartfelt gratitude and respect to Supervisor Mr. Krishna Prasad Adhikari, Department of mathematics Education, Central Department of Education, T.U. for his valuable suggestions, guidelines, encouragements and giving constructive suggestion during the completion of this thesis.

I wish to express my deep sense of gratitude to the For Head Department of Mathematics Education Mr. Laxmi Narayan Yadav for his valuable suggestions and facilitating in the study. My sincere thanks go to my respected teachers Prof. Dr. Hari Prasad Upadhyay, Prof. Dr. Min Bahadur Shrestha, Mr. Loknath Bhattarai, Mr. Dipak Mainali, Mr Abatar Subedi and all faculty members of the Department of Mathematics Education for their intellectual support in this Study.

It will be injustice not providing thanks to my friend Om Prakesh Pokhrel brother Devendra Pokhrel and I wish to acknowledge my parents and wife Mrs. laxmi Ghimire for providing me valuable time and suggestion in this study.

Finally, I would like to thank Mr. Ramesh Maharjan of Dynamic Computer and Photocopy Service, Tyanglaphant, Kirtipur for Computer Setting.

March , 2015

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## **ABSTRACT**

This study based on descriptive survey design related to problems faced by Tharu children in Mathematics classroom at secondary level. The objective of this was to identify and analyze the problem faced by Tharu children in mathematics classroom at secondary level. This research is both qualitative and quantitative in nature. Classroom observation form, questionnaire to students were used to collect data. Besides these, unstructured interview of selected students, teachers and parents had also taken to analyze problem. Six schools were selected from Nawalparasi district of electoral region 1, 2 and 3-two from each respectively. From each school, fourteen Tharu students at secondary level including of seven boys and girls each, was taken for sample of this study. Related literature, theory and concepts which are relevant to this study has been reflected.

On the basis of reviewed literature and different concepts of theories, Obgu was developed as indicators to analyze the problem of the study.

The finding of the study shows that there is cultural differences and discontinuity at school and home. There are linguistic problem at mathematics classroom. There is lack of interpersonal relation. There is no proper interaction between teacher and Tharu students at mathematics rooms. The Tharu students are dominated by teachers and non Tharu students. The poor economic status and home environment are not conducive for mathematics learning. Tharu students have no sufficient time for mathematics learning at home. This study also show that the financial condition of Tharu community is not strong enough to send their children at school. Parents are illiterate and family size is large, which are also as indicator to create the problem for Tharu children in mathematics learning.

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## Chapter – I

### INTRODUCTION

#### Background of the Study

The main ethnic groups in Terai are Tharu, Darai, Kumal, Maithili and other groups that have roots in India. The Tharu is the oldest and the largest ethnic group of Terai region living in the village near the dense malaria infested jungles in regions that were isolated over the years, allowing them to develop a unique culture and language. They are black in complexion and have smart trim bodies. They follow the Hindu religion and their practices depend upon many typical Aryan practices. Farming and business are the main occupation they are involved. The Tharu people live in the Terai and narrow strip of land which extend across 550 miles of the southern border of Nepal. Next to northern India, Tharu is one of the indigenous and disadvantages ethnic group. They are out of mainstream of social development and national policy. But they have own distinct culture and custom that gives their identity. The dress and ornaments of Tharu women are characteristically distinctive. They wear very little and light cloth, they use the silver necklace, bangles armlets bracelets and caring. They also put on tika called 'Tikulia' on their forehead. They celebrate different festivals like Jitiya, Ananth, Bardki Aaitwar. In Jitiya, they get-together and start singing their cultural songs.

Regarding the teaching of mathematics, Tharu students have faced the lacking of materials like textbook, references etc. They haven't got the text books from the initial phases of mathematics classes. Most of the children face economical problem also. They don't have enough money to afford dresses, books, Tiffin, etc. In the same way, novice students face the problems in adjustment, too. All students have been taught mathematics from the traditional methods. They feel uneasy in learning mathematics with untrained and less experienced teachers and their teaching strategy. In particular purpose, Tharu children are poorer than the children from other cast. It is very difficult for them to manage the entire economic phenomenon. They couldn't early afford sufficient time to learn mathematics. For Tharu children, time management for mathematics class seems very difficult for communicative purpose. Tharu children face many obstacles because their language is different- their language

has their own system. So they feel uneasy when communicating with others in mathematics classes.

Generally, we cannot find mathematics teachers from Tharu community in our country. Most of them don't have the opportunities to access education. Tharu children cannot afford dress, books, bag, tiffin, due to poor economic condition. Because of these reasons, Tharu children are not encouraged to go to school. Their parents along with their children work as a labour in their field. Because of lack of sufficient time, the Tharu children should have to sacrifice their education. In other words, they face difficulties while getting education because they cannot afford time, money, materials etc. resulting in dropout from gaining education. Later on, they enjoy by fishing, agricultural works with their parents and so on. Some Tharu children prefer to admit in army force, police and other fields. In our terai region many Tharu children spend their school going age in taking the responsibility of their family members. They spend their valuable students life in unimportant or less valuable activities. Tharu children are out of the great opportunity of the access of education.

Due to the gap between scholastic culture and the home culture, Tharu children face difficulties and obstacles in learning mathematics in the classroom. Tharu children neither assimilate nor accommodate in mainstream school system due to the difference between everyday life of Tharu students and school practices system at theoretical and practical level.

### **Statement of the Problem**

This study is concerned with the difficulties in learning mathematics of Tharu student at the secondary level. There are some difficulties in learning mathematics. The mathematics concept has been given from the basic level to secondary level, but at the same time ,other researchers claim that teachers donot use teaching material while teaching mathematics in classroom. New model and methods are not applied in teaching learning mathematics except traditional methods; student center teaching methods are not applied by teachers in classroom. Students have less interests to learn mathematics and the courses cannot be finished within the stipulated time frame within the academic year. Tharu students are culturally backward and face different problems than other cast students. The general class is not sufficient for them. So,

some special class or extra classes are to be managed for them. Comparatively the achievements of the Tharu students are very low in mathematics than the other students. Their home environment is not in favor to learn mathematics. Therefore there arise different questions related to mathematics and the difficulties in learning the very subject.

- Do Tharu children face difficulties in learning mathematics in the classroom?
- Why and what kind of difficulties are faced by them in mathematics classroom?

### **Objective of the Study**

The main objective of the study was:

- To analyze the difficulties faced by Tharu children in mathematics classroom.
- To find out causes of difficulties faced by Tharu students in mathematics classroom.

### **Significance of the Study**

Mathematics is a compulsory subject in school level. But most of the Tharu students are weak in mathematics because of a number of reasons. One of the main problems related to teaching mathematics is the lack of physical facility. The demand of mathematics is being increased day by day. The significance of the mathematics can be exemplified with the increasing used in various field like science and engineering, management, social sciences, education and so on. Hence, mathematics has been considered as a queen and servant of all sciences. The following will be the significances of this study:

- It helps to find problems faced by the Tharu children in teaching learning mathematics.
- Its finding helps to improve the mathematics achievement of Tharu students.
- It is helpful for all Tharu students and teacher also.
- Its finding also helps to the curriculum designer and other
- This study supports to maximize the achievement of Tharu children for successful mathematics learning.

- It helps to collect information for book writers.

### **Hypothesis of the study**

- The research hypothesis formulated for this study, were
- $H_1$  : There is problem for Tharu children in mathematics classroom
- $H_0$ : There is no any problem for Tharu children in mathematics class room.
- Level of significance : 0.05

### **Delimitation of the Study**

This study was limited to the following areas:

- This study was limited to all Tharu students of secondary level of Nawalparasi district.
- This study was carried out to the Tharu children only.
- Findings of the study would not be generalized because of the limited samples size.

### **Definition of Related Terms**

**Teachers:** Those people who are teaching mathematics at secondary level in Nawalparasi district (electoral region 1,2 and 3)

**Students:** Tharu children who are studying in secondary level at Nawalparasi district (electoral region 1,2 and 3)

**Population:** Tharu students at secondary level, mathematics teachers of secondary level and parents of Tharu students of Nawalparasi district(electoral region 1,2 and 3)

**Problem:** The difficulties faced by Tharu students of Nawalparasi district (electoral region 1,2 and 3) at secondary level.

## **Chapter – II**

### **REVIEW OF RELATED LITERATURE**

The review of related literature is an essential aspect of research project. It is important and necessary for a researcher to study what has already been done and to know what is to be done in the area under study. A number of books, articles, research reports, and other booklets were found in the course of doing this research that were concerned with curriculum teaching instructional materials, classroom management, physical facilities and so on. The researcher tries to find out the literature on the topic that is related to problems faced by Tharu children in learning mathematics. Some books, articles, magazines and soon have been published regarding the problems faced by Tharu children from which I will have a number of ideas for a successful mathematics classroom.

#### **Empirical Literature**

Adhikari (2006) did a study on “cultural discontinuity and difficulties in learning mathematics of dalit students.” The objectives of this study were to identify the causes of difficulties in learning mathematics, impact of home environment. The study was done on four dalit students. In depth interview, observation form, written documents were main tools and study. He concluded that there is discontinuity between home culture and schools culture in learning mathematics.

Attreya (2006) did a research on a title “A study of problem faced by mathematics teacher to maintain positive discipline in secondary level classroom” with the objective to examine the discipline of students in mathematics classes at secondary level and to identify the problems faced by mathematics teacher maintain positive discipline in secondary level classroom. The design of study was qualitative as well as quantitative in nature. the researcher gathered information from classroom observation and interview questionnaire for teacher. he analyzed the classroom observation result by using mean weightage and questionnaire through the related theory. He found the conclusion, mainly the problems are attributed by crowedness of students in classroom, unavailability of furniture unarranged seat planning, lack of proper teaching materials laxness in enforcing school regulation, unsystematic

teaching methods, poor evaluation of homework and classwork, limited co-curricular activities, punishment system poor guidance at home, ineffective family environment.

Baral (2004) did a research on “a case study of street children for learning mathematics.” The main objective of this study was to investigate how the street children learned mathematical skills. Different tools such as case study, observation and interview were applied to investigate their learning of mathematical skill and Vygotsky’s social constructivism theory was applied to analyze the data. He conducted that street children of the Kathmandu valley had basic mathematical knowledge. The level of their skill was different according to the work where they involved in. They have learned counting, addition, subtraction, multiplication, weight, probability, set, distance, profit and loss, gain, discount as they interacted with their environment of their adults all these skills which have helped them to live on the street where learnt mostly from experience situation and the culture where they living on since they landed on the street private speech observation, advice from adults and peers and limitation were the sources of learning mathematics for them.

Ghimire, (2005) did a case study on “Difficulties on Learning Algebra”. The objectives of the study were to identify the difficulties on content of algebra and to identify the difficulties on classroom practices. This study was conducted with the sample size of four blind students. The students were selected by random sample process. Different tools such: observation, interview and written test were applied to identify their learning difficulties on algebra. A study found that the blind students had able to only add, subtract, multiply of simple very short algebraic terms but unable to divide and they have the limited knowledge about the factorization HCF & LCM. They were only recognized the equation but can not solve it and the coordinate geometry was out of their capacity. The major difficulties of the blind student were found such as:

- To develop clear concept on subject matter.
- To write algebraic concept.
- To solve process of mathematical problem in Brail script.
- To adjust in integrated class in learning mathematics and
- To use materials and methods in mathematics learning.

Kafle (2010) did a research a research on “A Study on Problems by Tharu Children in Mathematics Classroom.” The objective of this study was to identify and analyze the problem faced by Tharu Children in Mathematics Classroom in Lower Secondary Level. The study was done based on ten government aided schools- five from urban and five from rural areas of Rupandehi district. He used classroom observation and questionnaire as the main tool and instruments for data collection.

Poudel (2007) conducted a thesis entitled “A study on problem faced by lower secondary school mathematics teachers in teaching Geometry.” He concluded that geometry teaching and learning is not satisfactory in Parbat district. He found that there were numerous problems faced by teacher due to curriculum and textbook, physical facilities, teaching learning activities, materials, methods and technique of student’s evaluation. Also he found that both trained and untrained teachers have been facing more or less similar problems. Teacher are facing many problems due to the lack of training; crowd number of students, lack of proper teaching materials, lack of math lab, poor evaluation process, and time factor urban oriented curriculum are the burning problem of the teacher in teaching geometry is a major psychological problem.

Rijal (2008) did a research on the title “the difficulties in learning mathematics of rana tharu students at lower secondary level” with the objectives to identify the difficulties and cause of difficulties in learning mathematics of rana tharu students at lower secondary level. Study was qualitative and descriptive in nature. The researcher gathered information from interview, observation and related published unpublished documents. Only five children of Rana-tharu were selected from grade six with purposive sampling techniques. The researcher analyzed the data in descriptive way. He found the conclusion there are a mainly two vital factor that affects Rana-tharu students in mathematics learning one is language dominance and another is cultural difference/discontinuity.

Uphadhyay (2001) did a research on “effect of constructivism on mathematical achievement of grade five students in Nepal.” The research was conducted with three key words: Action, Reflection and scaffolding. The main aim of research was to advocate and adopt constructivism in mathematics in Nepal. From this research the

researcher concluded that the possibility of constructivism in Nepalese school was significantly different in achievement than conventional method of teaching.

From the above review I got an idea of doing a research by using a number of tools such as observation, interview, written test, questionnaire, observation etc. Those researches have made a research by using qualitative and quantitative methods both. But my search is different in a way that they speak typical Tharu language which is different from other Tharu communities. These people are mostly living in the electoral regions 1, 2 and 3 of Nawalparasi district. So I became highly interested to research on these Tharu students.

### **Cultural Difference and Cultural Discontinuity Theory**

According to John Ogbu (1982, 2000, 2001), learning is the product of cultural and language differences. But he emphasizes on the nature of relationship between the culture language of disadvantaged dominant groups cultural discontinuity theory deals with the problems in children's learning caused by difference and discontinuity between the cultures of home and school. Following John Ogbu (2001) leaning not only as the product of cultural and language differences but he insist on the nature of relation between the culture and language of minority/disadvantaged and dominant groups.

Ogbu (1982) that the cultures of home may face difficulties their culture the cultural differences between home and school can influence Childs learning due to the school environment, teaching procedure different classroom activities reaching style relation with different unknown person affect mathematics learning. Voluntary minorities are people who have shifted voluntarily wishing a better life, opportunity and more freedom in the US, UK, Germany. Due to mainly cultural and language differences they usually face the problems in the school. In the US may create difficulties for those voluntary minorities due to the lack of orientation about how the schooling system works. During the period of colonization, involuntary minorities are traced as animal who were carried to the US or any other field against their will for slavery or to keep them as slave in home to work in agriculture industry and so on. Universal cultural discontinuity can be got in all children as some characteristics of schooling are discontinuous with their home and community cultures. To encourage

family intimate diffuseness and particularize in interpersonal relationship the socialization process in their community and family should be more familiar to the child. Ogbu further illustrates that primary cultural discontinuity is practiced by primary cultural variance resulting cultural developments before members of a given population come into contact with existing culture of dominant group of population, primary cultural discontinuities are often associated with immigrants attending schools in their host societies and with people being introduced to western type school. Due to the consequence of modernization, globalization process and donor network, school are impressed by western schooling system in Nepal.

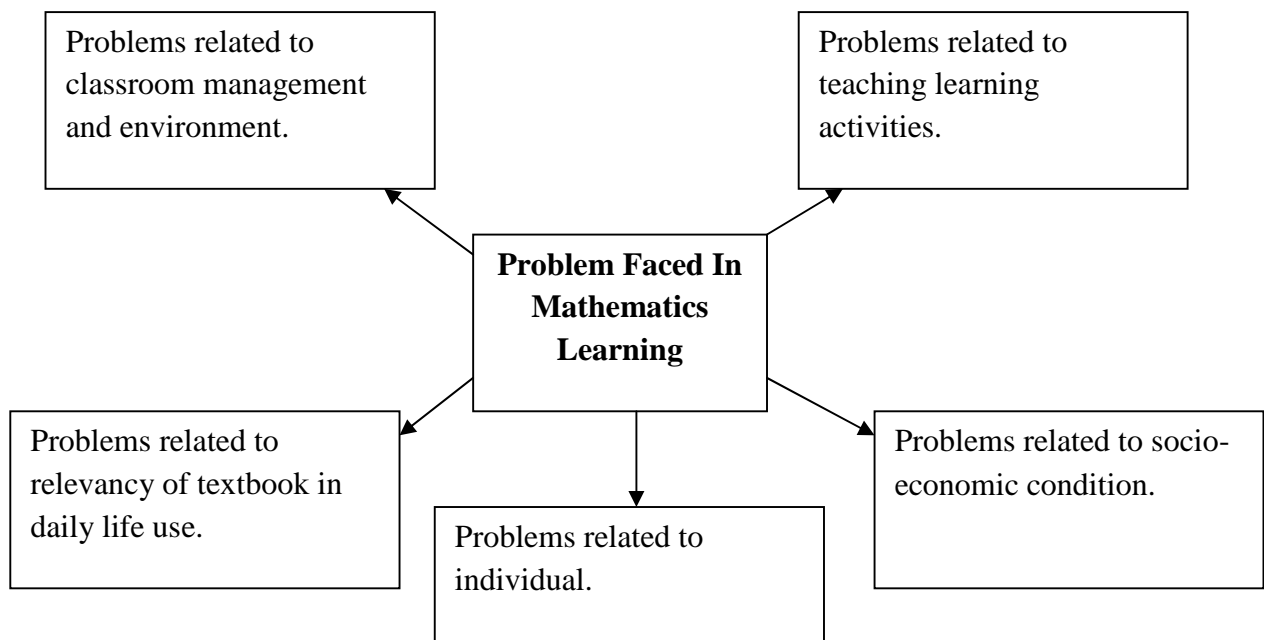
Ogbu (1982) further illustrates that secondary cultural discontinuity is developed after members of two population groups with different cultural background have been in touch or they have started to participate in an institution like school which is controlled by another group the dominant one similarly a society on which caste like minorities has been incorporated into the society rather involuntarily and permanent with lacking in job and status in society. Due to collective instructional discrimination and display like school system. They tend to exclude from the mainstream with social and economic problem that leads their lives to miserable condition. Since secondary cultural discontinuities are developed by structural discontinuity in the society they are difficult to identify point out and locate in school due to their diffuse nature with a deep root in the society. They are generally born as a reaction to a contact situation involving the domination of one group by another subordinate group.

The features or characteristics of secondary cultural discontinuity are less specific more diffuse and stylistic that creates difficulties in identifying and understanding them. Dilemma situation and the dominant group do not always know or does not want to know about the cultures of subordinate group by saying difficult to know because of multicultural existence of children in society. It is just an escaping trend and the dominant group the higher caste people from including the subordinate group or disadvantage group into the mainstream. In the same way although the subordinate group knows the culture of dominant group they do not need to practice others culture because their tradition doesn't let them to act like members of the dominant group. So, in this study, we discussed on what type of cultural discontinuity

was dominantly prevailing for the Tharu and the theory describes social structures in every household.

### **Theoretical Framework of the Study**

This study sought to draw the difficulties in learning mathematics of Tharu student. This study is mainly based on the culture discontinuity and culture difference theory. The following framework in difficulties in learning mathematics is drawn from the above theoretical and empirical literature which was purposed as a theoretical framework of this study.



(Data was collected, analyzed and interpreted with this theoretical bases.)

The above mentioned problems are explained in detail below.

#### **A. Problems Related to Classroom Management and Environment:**

School is the component of educational atmosphere. It has a deep relation with classroom management and environment. Good classroom management and environment has important role in children career. If it is well managed, then the learning becomes proper and effective in classroom and environment. There are many

factors but some particular things are observed. I will mainly take the following issues.

- a. Problems in making the students participate in classroom activities
- b. Furniture and black board management
- c. Discipline management and others

## **B. Problems Related to Teaching Learning Activities**

Teacher activities play an important role in teaching learning activities. Teacher should handle the classroom by applying suitable teaching method and motivate them. But many schools are applying the traditional teaching methods which create problems in learning mathematics. Teaching learning activities include many factors which affect the mathematics learning. Among them some particular factors are taken out and studied which are given below.

- a. Teaching methodology
- b. Daily homework checking and feedback
- c. Language typicality
- d. Teaching materials management and others.

## **Problems Related to Relevancy of Textbook in Daily Life Use**

Text books play an important role in mathematics learning, without text book it is difficult to learn mathematics. Text books are arranged in such a way that they come sequentially making the student learn easier. Most of the mathematical problems are related to daily life. Some of them include unitary method, electricity bill, discount, profit and loss etc. Among them some particular factors are taken out and studied which are given below.

- a. The verbal problem of textbook is related to daily life
- b. Printing mistakes found in the textbook
- c. Difficult to understand mathematical terminologies etc.

### **Problems Related to Individual**

Individual Problem refers to one of the difficulties which influence in comprehending mathematics. There are so many problems existing in the process of learning mathematics in classroom. Some of the problems are listed below.

- a. Regularity
- b. Understanding Nepali language
- c. Participation in classroom discussion
- d. Practice
- e. Hesitation to share the problems
- f. Interaction about subject matter

### **Socio- Economic Condition**

Socio-economic condition hampers the learning activities in mathematics classroom. Due to poor socio-economic condition, the Tharu children are neither encouraged to go to school, nor they can afford for their education. They cannot manage even for the educational material for their supplementary assets. Some of the problems under these topics are listed below.

- a. Economic condition
- b. Financial support
- c. Scholarship programme
- d. Availability of materials

## **Chapter – III**

### **METHODS AND PROCEDURES**

This chapter includes the procedure of the study by which the objectives of the study can be achieved. It consists of research design, population of the study, sample of the study, tools and instruments of the study, data collection procedure and data analysis procedure.

#### **Research Design**

The research design of this study was survey. Survey research is a method of collecting and analyzing data obtained from large number of respondents representing a specific population through highly structured questionnaire or interview schedule. The design of the study is both quantitative and qualitative in nature.

#### **Population of the Study**

All Tharu students of secondary level, teachers and the parents of Tharu students of public school of three electoral regions of 1,2 and 3 of Nawalparasi district, where maximum number of Tharu children stay, were the population of the study.

#### **Sample of the Study**

The selection of sample was taken primarily through stratified random sampling techniques. There are altogether five electoral regions in Nawalparasi district. Among them, three electoral regions 1,2 and 3 were selected for the study, where maximum number of Tharu children stay. Likewise, two schools of each electoral region were selected. Within each school, fourteen students- including of seven boys and seven girls- were selected. Altogether, eighty four students were selected for the study.

## **Tools and Instruments for Data Collection**

The main tools used in this research are questionnaire, observation, and interview schedules. The questionnaire was made so as to find out the problems quickly and efficiently existing among the students.

In the some way, the observation form was taken to find out whether the problems, found in questionnaire, were genuine or not. Likewise, interview is such a tool from which even the deep rooted problems can be found. Here the interview was taken to find out the inherent problems that could not be found out both from questionnaire and observation form. Similarly one sample test also taken to analyze the problem genuine or not. So the aforementioned tools were used.

## **Data Reliability Techniques / Triangulation**

Recently the word Triangulation has been used widely discussion of qualitative research. Triangulation is a method to get an accurate reliable picture of situation. The idea of assessing learning and attitudes from a range of perspectives is called triangulation. The tools used in this thesis are reliable. It is because the responses obtained from the questionnaire and the interview was consistent.

## **Data Collection Procedure**

I followed the following processes to collect primary data:

First, I contacted the concerned authority and got permission. I collected the data of Tharu children of Nawalparasi district. I requested the respondents to be familiar.

I made a questionnaire dividing it in five sub categories. Then, I chose six schools (fourteen students from each school including of seven boys and seven girls). After this, I distributed the set of questions for total eighty four students and collected the filled up questionnaire. Later on, the observation form was taken twenty-four times (four times in each school). The very observation was extracted from the thesis of Mohani Lal Kafle entitled *A Study on Problem Faced by Tharu Children in Mathematics Classroom at Lower Secondary Level*. Later on I took an interview of

parents , teachers , and students so as to solve the problems found out from the questionnaire and observation form.

### **Data Analysis Procedures**

This study is based on qualitative and quantities approach. Three point likert's scale was used to quantify the response of the students in questionnaire. The Scoring of question was marking according to positive and negative statement .If the statement was positive for agree 3 marks, Netural -2 marks, and reject 1 markes,Simialrly if the statement was negative agree get -3 marks .Neutral get 2 marks and reject get 1 marks. Data were analyzed based on the percentage and mean. The issues agreed to be problematic by more than fifty percent which were analyzed as a real problem If the mean value of the each question is greater than 2, it is problematic or otherwise not. The observation form was analyzed by weighted mean value. If the mean score is greater than two, that is considered to be problematic, otherwise not. If the problems found from both questionnaire and observatin form then, they were asked in the interview. The problems were queired to the students, teachers and parents later on in the form of the interview. Finally, the problems found in all three tools of research were trangulated and regarded as the real and genuine problem.

## **Chapter – IV**

### **ANALYSIS AND INTERPRETATION OF DATA**

The data was collected for the study from six secondary schools of Nawalparasi District. So the main sources of information of this study were data collected from Tharu students, interviews taken from parents, teachers and students concerning mathematics in the secondary level. This chapter is divided into two sections, according to the categorical responses by the respondents, interviews and classroom observation.

In the first section, the data was collected from the related regions based on the questionnaire. The researcher used different indicators such as classroom management and environment; student's activities in the classroom, teacher's activities, school administration, problem related to socio-economic, individual and relevancy of textbook in daily life use. Fourteen students including of seven Tharu boys and girls each were selected from public schools( two from three electoral regions each) of Nawalparasi district as the respondents where maximum number of Tharu children stay.

In the second section, the data was collected from the classroom observation except in problem to relevancy of textbook in daily life use, and problems related to individual. The researcher used different indicators of classroom observation form such as classroom management and environment, teachers and student activities in the classroom, teacher's activities and school administration and socio economic condition.

At last, the researcher took unstructured interview from students, teachers and parents to analyze the problem, which are found from questionnaire and classroom observation form.

The collected data were analyzed and interpreted under the following headings, which correspond to the objectives of the study.

- a) Problems related to classroom management and environment.
- b) Problems related to teaching learning activities.

- c) Problems related to relevancy of textbook in daily life use.
- d) Problems related to individual.
- e) Problems related to socio-economy.

### **Problems Related to Classroom Management and Environment**

Classroom management and environment are the challenging issues in the mathematics –teaching- learning activities. Classroom management and environment promote pupils' achievement and success. Proper classroom management and well environment ensures the learner to have better environment to manage silent classroom and peaceful environment of school and well-established physical facilities.

To find out the related problems, the responses of the responded were collected which are shown below:

**Table No. 1**

#### **Classroom Management and Environment**

| <b>Statement</b>   | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> | <b>Mean</b> | <b>S.D.</b> | <b>Significance</b> |
|--|--------------|----------------|---------------|-------------|-------------|---------------------|
| It is difficult to participate in learning activities in huge classroom.     | 55 (65%)     | 18 (21%)       | 11 (14%)      | 2.51        | 0.736       | 0.000               |
| Anything written in blackboard is visible.                                   | 22 (26%)     | 0              | 62 (74%)      | 2.52        | 0.857       | 0.000               |
| The room is very congested.  | 43 (52%)     | 27 (32%)       | 14 (16%)      | 2.60        | 0.746       | 0.000               |
| There is noisily environment around the classroom.                           | 57 (69%)     | 13 (15%)       | 14 (16%)      | 2.65        | 0.649       | 0.000               |
| Furniture and blackboard management are sufficient in classroom.             | 15 (18%)     | 10 (12%)       | 59 (70%)      | 2.64        | 0.688       | 0.000               |
| Our friend teases to you in the classroom.                                   | 63 (75%)     | 0              | 21 (25%)      | 2.62        | 0.790       | 0.000               |
| Our friend disturbs us by side talking throwing cheat etc. in the classroom. | 62 (74%)     | 0 (35%)        | 22 (26%)      | 2.52        | 0.857       | 0.000               |
| We involve in classroom discussion.  | 5 (6%)       | 5 (6%)         | 74 (88%)      | 2.75        | 0.599       | 0.000               |

The above table no. 1 shows that majority of the respondents i.e. 65% accepted that it is difficult to participate in learning activities in huge classroom. It seems that majority of the students are facing difficulties to participate in learning activities in huge classroom. From the above given table 1, the blackboard which is visible as responded by the 26 percent of students while 70 percent claimed that the blackboard is not visible. It means that the blackboard to be invisible is a problem.

More than half students i.e. 52% responded that the room is very congested. It was found that it is very difficult to conduct teaching learning activities with freely environment. Likewise, more than 50 percent students indicated that furniture and blackboard management are not sufficient in the classroom. It was found that furniture and blackboard are misplaced in the classroom. Most of the students were in favor of the statement that the noisy environment disturbs the learning activities in the classroom. All most of the students agreed that their friends tease them in the classroom. It indicated that almost of the students were facing the problem from their friend in classroom. Likewise, more than 70 percentages of the students were distributed by side talking throwing cheat etc. in the classroom. They also agreed that they didn't agree in classroom discussion.

After analyzing the questionnaire, a number of problems were found. To find out the fact, the observation form was taken which is given down.

### Observation Form

| Observed Items                       | Good | Neutral | Poor | Mean Weight age | Remarks |
|--------------------------------------|------|---------|------|-----------------|---------|
| Classroom Management and Environment |      |         |      |                 |         |
| Classroom size                       | 8    | 4       | 12   | 2.2             | P.      |
| Cleanliness                          | 14   | 4       | 6    | 1.7             | N.P.    |
| Availability of furniture            | 6    | 5       | 13   | 2.3             | P.      |
| Seat planning of students            | 7    | 6       | 1    | 2.1             | P.      |
| Arrangement of blackboard            | 6    | 5       | 13   | 2.3             | P.      |
| Classroom environment                | 5    | 7       | 12   | 2.8             | P.      |

From the above observation form, I found that the size of the classroom is not favourable for the students and the set of furniture is not sufficient. Four or five students were sitting in a bench which is suitable for three at the most. But the rooms were clean and tidy. The blackboard was not visible due to the lack of proper management of teaching learning materials. The classroom environment is also noisy.

An interview was taken with the vice principal of Shiva Ma. Vi, Shiva Mandir-3, Nawalparasi. I asked his questions found out from questionnaire and observation form. He replied that *the school is very poor. The school doesn't own a big building so that it has been difficult to run the school. The classrooms are congested. More and more number of students are being added every year. Because of the over number of students ,it is often noisy. We are concerned about it and searching a better solution sooner than later.*

From the above table, the calculate value of question numbered 1 is greater than tabulated value in significance level 0.05, so it is problematic similarly all if the above (Value of questions are greater than the tabulated value (1.64) so all of the above questions are significant. It means those question which are included in table one that

| N  | Mean  | Std. Deviation | T - test |
|----|-------|----------------|----------|
| 84 | 2.602 | 0.236          | 100.700  |

The above table shows that, the mean value of classroom management and environment is greater than 2 and the calculated value of t is greeted than it's tabulated value (1.64) the questions which are included in table 1 all are seems to problematic.

Finally, it can be said that the classroom management and environment does not seem in favor of Tharu students in the mathematics learning. The classroom has not properly managed.

### **Problem Related to Teaching Learning Activities**

I analyzed and interpreted the teaching learning activities of Tharu students of Nawalparasi by using problematic and non-problematic statement. For this, a set of questionnaire was used which is given below.

**Table No. 2**  
**Teaching Learning Activities**

| <b>Statement</b>  | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> | <b>Mean</b> | <b>S.D.</b> | <b>Significance</b> |
|---|--------------|----------------|---------------|-------------|-------------|---------------------|
| Mathematics teacher gives suitable example relating to daily life use.                    | 43 (52%)     | 22 (27%)       | 19 (21%)      | 2.44        | 0.700       | 0.000               |
| Our teacher makes us understand to solve the problem by using our mother language.        | 15 (18%)     | 0              | 69 (82%)      | 2.76        | 0.652       | 0.000               |
| The teacher addresses our creativity and curiosity.                                       | 18 (21%)     | 0              | 66 (79%)      | 2.62        | 0.790       | 0.000               |
| There is a problem in the selection of suitable teaching methods.                         | 59 (71%)     | 13 (15%)       | 12 (14%)      | 2.64        | 0.670       | 0.000               |
| Teaching is only exam oriented.   | 56 (66%)     | 25 (30%)       | 3 (4%)        | 2.57        | 0.176       | 0.000               |
| The teacher checks our homework daily.  | 0            | 25 (30%)       | 59 (70%)      | 2.61        | 0.659       | 0.000               |
| Teacher gives the feedback.   | 43 (52%)     | 26 (31%)       | 15 (17%)      | 2.43        | 0.682       | 0.000               |
| Sometimes our teacher uses our language while teaching.                                   | 14 (17%)     | 20 (24%)       | 50 (59%)      | 2.51        | 0.703       | 0.000               |
| The teacher provides a lot of examples and teaching materials while teaching mathematics. | 11 (13%)     | 13 (16%)       | 60 (71%)      | 2.63        | 0.617       | 0.000               |
| Our teacher asks question to us in classroom.   | 13 (16%)     | 25 (30%)       | 46 (54%)      | 2.42        | 0.732       | 0.000               |
| Our teacher manages individual instruction for weak student.                              | 9 (11%)      | 13 (16%)       | 62 (73%)      | 2.67        | 0.665       | 0.000               |
| Our teacher motivates us for practising mathematics in classroom                          | 15 (18%)     | 26 (31%)       | 43 (51%)      | 2.45        | 0.767       | 0.000               |

Almost half of the students i.e. 52 percent accepted that while teaching teacher gives suitable example relating to daily life use. Likewise, 27 percentages student

chose 'Neutral'. Similarly, some students i.e. 21% of them rejected it. It shows that half of the students were in favor of providing sufficient and suitable example relating to daily life use.

Table no. 2 shows that some students i.e. 18 percentages accepted that our teacher makes us understand to solve the problem by using our mother language. On the other hand, 82 % students rejected it. It seems that more of the students argued against the statement two. It means the most of the teachers were not able to make the students to understand to solve the problems by using their language.

Likewise, another item is that the teacher listens to your creativity and curiosity which were accepted by 21 % respondents. Similarly, 79 percent respondents rejected. It seems that more teachers do not address the student's creativity and curiosity. Table no. 2 demonstrates that teaching is only exam-oriented which is accepted by majority of respondents i.e. 66%. Likewise, 30 % respondents were in confusion about this statement. Similarly, only few students i.e. 4 % rejected this. It shows that majority of the students revealed that teaching is only exam-oriented.

Likewise, majority of respondents i.e. 70% were found negative towards the statement that the teacher checks their homework daily. None of them accepted that the teacher checks your homework daily. Similarly, some respondents i.e. thirty percentages students were in neutral. It mentions that majority of the teachers did not check their homework daily.

In the statement 'teacher gives the feedback', out of 84 respondents, 43 respondents i.e. 52 % responded the teacher gives the feedback positively. Similarly, 31 percentages students stood as Neutral. Next 17 percent students rejected it. It means that more than half of the teachers were aware of providing the feedback to the Tharu students while teaching Mathematics.

Next statement is about some times our teacher use our language while teaching which were accepted by few respondents i.e. 17 %. In addition, 24 percentages of them chose 'Neutral'. Majority of students were found negative

towards the statement that teacher uses mother languages. It seems that majority of the students were not in favor of using mother language.

Similarly, few respondents i.e. 13 percentages students accepted that the teacher provides a lot to examples and teaching materials while teaching mathematics, and 16 percent are in confusion whether the teacher provides a lot of examples and teaching materials while teaching mathematics . Likewise, the majority of the students i.e. 71 percent rejected this statement. It results that majority of the teachers were not aware of providing many examples and teaching materials while teaching mathematics.

Next statement is our teacher asks question to us in classroom which is accepted by only 16 percentages and 30 percentages of them chose 'Neutral'. Likewise, 54 percentages rejected it. It results that more than half of the students were stood against the statement that teacher asks question in classroom.

Most of the students i.e. 73 % were found negative towards the statement that their teacher manages individual instruction for weak students. Again few respondents i.e. 11 percentages students responded positively that their teacher manages individual instruction for weak students. Likewise, 16 percentages of them were silent for the statement towards the management of individual instruction for weak students. It clears that most of the teachers neglect to manage individual instruction for weak students.

In the last statement, 'our teacher motivates us for practice' which was accepted by 18 percentages respondents. Some of them i.e. 31 percentages respondents were not sure whether your teacher motivates you for practice or not. Moreover, more than half of the respondents i.e. 51% rejected the statement that their motives them for practice mathematics in classroom. It seems that around half teachers were not aware of motivating students for practice.

Majority of students i.e. 71 percent responded that there is a problem in the selection of suitable teaching methods. It seems that Tharu children felt difficulties to learn mathematics due to the problem of selecting teaching method. It causes the dropout of Tharu children.

Teachers are the important element of whole education system. They play central role in teaching learning activities. Without teacher, teaching-learning activities are impossible. The administration of school is important for implementation of curriculum. The school administration should establish good relationship between teacher and students, and with their parents, society, other school and so on. Here teacher's activities and school administration had become problematic for Tharu children in Mathematics learning.

After analyzing the questionnaire, the observation form was taken which is given down.

### Observation Form

| Observed Items   | Good | Neutral | Poor | Mean Weightage | Remarks |
|--|------|---------|------|----------------|---------|
| <b>Teacher's and Student's Activities in Classroom</b> |      |         |      |                |         |
| 1. Greeting to the teacher while entering the class    | 20   | 2       | 2    | 1.3            | N.P.    |
| 2. Follow up direction of teacher                      | 3    | 8       | 13   | 2.4            | P       |
| 3. Availability of textbook, copy and other materials  | 7    | 7       | 10   | 2.1            | P       |
| 4. Completion of classwork                             | 18   | 0       | 6    | 1.5            | N.P.    |
| 5. Completion of assigned homework                     | 12   | 8       | 4    | 1.7            | N.P.    |
| 6. Participation in classroom discussion               | 4    | 3       | 17   | 2.5            | P       |
| 7. Talking with teacher                                | 3    | 2       | 19   | 2.7            | P       |
| 8. Student to student cooperation                      | 5    | 3       | 16   | 2.4            | P       |
| 9. Sharing the problems in classroom                   | 2    | 2       | 20   | 2.7            | P       |
| 10. Interaction of teacher and student                 | 6    | 3       | 15   | 2.4            | P       |
| 11. Regulation of student                              | 7    | 5       | 12   | 2.2            | P       |
| 12. Interaction about subject matter among students    | 4    | 2       | 18   | 2.6            | P       |
| <b>Teacher's activities and school administration</b>  |      |         |      |                |         |
| 13. Homework assigning                                 | 4    | 8       | 12   | 2.3            | P       |
| 14. Classroom assigning                                | 3    | 7       | 14   | 2.4            | P       |
| 15. Homework checking                                  | 2    | 2       | 20   | 2.7            | P       |
| 16. Classwork checking                                 | 6    | 7       | 1    | 2.2            | P       |
| 17. Level of motivation                                | 5    | 5       | 14   | 2.4            | P       |
| 18. Speaking voice                                     | 15   | 7       | 2    | 1.4            | N.P.    |
| 19. Use of re-enforcement                              | 6    | 5       | 13   | 2.3            | P       |
| 20. Encourage to student                               | 7    | 4       | 13   | 2.2            | P       |
| 21. Classroom discussion method                        | 3    | 6       | 15   | 2.5            | P       |
| 22. Interaction with all students                      | 2    | 4       | 18   | 2.7            | P       |
| 23. Providing extra class for weak students.           | 0    | 8       | 16   | 2.7            | P       |

From the classroom observation, it had been said some teacher neglected to address the students responses. They mostly used lecture method and less used demonstration method and discussion method. Talent students were being focused in the classroom by the teachers. Some students were talking in the classroom while the teacher was writing on the blackboard. Teacher did not assign homework regularly. Similarly, there was no homework assigning properly. Similarly, teacher did not check homework and class work regularly. Teacher utilized the least level of motivation to their pupils. It means that teacher rarely motivated their pupil in mathematics learning classroom. For Tharu students, teachers occasionally used reinforcement in the classroom. Likewise, the Tharu students were facing another problem. It is the lack of interaction among the students due to differences between English language and Nepali language. Tharu students did not understand Nepali language used in the classroom. In addition, Tharu students were not interacting among friends for sharing mathematics problems. There was no any opportunity of extra class for weak students. Thus, it has been caused due to teacher's negligence and school administration.

The problems seen from both the questionnaire and observation form were sorted out. Later on, these problems were queried out whether they were really genuine or not, for this the Mathematics teacher was taken an interview. The excerpt is given down.

### **Teachers Interview**

Chintamani Mahato is the mathematics teacher of Shre Kumarbarti Secondary School. Kolhuwa of Nawalparasi district. He has been teaching for 4 years. As a researcher, I questioned, "What are the problems for mathematics learning of Tharu children?"

He answered, "*There are many problems for Tharu children at classroom. They are linguistic problem, poor economic condition, poor classroom environment and their culture. Tharu students could not speak Nepali correctly. Uneducated Tharu parents did not send their children in school regularly.*"

According to the teacher, awareness of parents of Tharu children is very poor. Tharu students, occasionally completed their homework. Child marriage is also one reason for Tharu student's absence. Tharu students being dominances group were dominated by the dominated group. Tharu children have to do the household work and agricultural work. Tharu parents are forced to engage their children in household work and agricultural work done to the poverty and unawareness of them. Similarly, teaching materials are not sufficient for mathematics learning. Tharu children felt difficulties in Mathematics classroom lack of concentration of them.

| N  | Mean  | Std. Deviation | T - test |
|----|-------|----------------|----------|
| 84 | 2.562 | 0.173          | 135.371  |

The above table shows that, the mean value of Teaching learning activities is greater than 2 and the calculated value of t is greeted than it's tabulated value (1.64) the questions which are included in table 2 all are seems to problematic.

In brief, while surveying the questionnaire distributed to the students a number of problems were found out. One of the most problematic issues was about the teaching learning activities. The teacher was not found to be supporting the students in the sector like teaching in a friendly manner, checking home works regularly, paying extra attention to the academically poor students etc. The teacher only focused on the exam oriented questions rather than teaching the overall idea on the topics. More about the teacher did not motivate the students towards the subject matter.

Later on when the class room was observed some of the false were found from the student's side too. The students were not properly following the teachers' direction. The students hardly did their home works and there was big gap between the teachers and the students the students were found to be hesitating to ask the questions to their teacher. they very often used to remain absent in the school. Besides them a number of them problems were also there. These problems includes level of motivation, lack of encouragement, student participation, classroom discussion and providing extra class to the students etc.

Finally as a researcher, I asked the mathematics teacher of the respective subject, Mr. Chintamani Mahato about the overall problems inherent there and was

asked why these problems were seen in his classroom. He admitted the causes found in the observation forms. Besides these reasons, he added more factors too. These factors were poor linguistic capacity, poor economic status, poor classroom environment and their culture and cultural practices. Similarly teaching materials were not sufficient for mathematics learning etc.

### **Problem Related to Relevancy of Textbook in Daily Life Use**

Relevancy of textbook in daily life was analyzed and interpreted by using questions in various topics with the students from questionnaire that is given down.

**Table No. 3**  
**Relevancy of Textbook in Daily Life Use**

| <b>Statement</b>  | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> | <b>Mean</b> | <b>S.D.</b> | <b>Significance</b> |
|---|--------------|----------------|---------------|-------------|-------------|---------------------|
| The subject matter are arranged sequentially.                           | 37 (44%)     | 43 (51%)       | 4 (5%)        | 1.82        | 0.779       | 0.000               |
| The verbal problem of text book are related to your daily life.         | 49 (58%)     | 27 (32%)       | 8 (10%)       | 1.56        | 0.782       | 0.000               |
| There is no mistake in printing.  | 55 (65%)     | 21 (25%)       | 8 (10%)       | 1.82        | 0.867       | 0.000               |
| All the lesson of the textbook can be finished in time.                 | 24 (28%)     | 23 (27%)       | 37 (45%)      | 2.76        | 0.428       | 0.000               |
| There are difficulties in understanding the mathematical terminologies. | 73 (86%)     | 11 (14%)       | 0             | 2.52        | 0.685       | 0.000               |

According to the table no. 3, another statement is the subject matter are arranged in sequentially which was accepted by less than half of respondents i.e. 44%. Similarly, 51 percentages respondents were silent about the statement. Only few respondents i.e. 5% rejected it. It shows that around half of the students were silent whether the subject matters are arranged in sequentially or not.

Table no. 3 demonstrates the verbal problem of textbook are related to their daily life which was accepted by majority of the students i.e. 58 percentages. Likewise, some respondents i.e. 32% chose neutral and only few respondents i.e. 10% rejected it. It shows that majority of the students were aware about relating verbal problem of textbook to their daily life.

The table no. 3 shows that majority of the students i.e. 65 percentages accepted that there is no mistake in printing. Likewise, 25 percentages chose 'Neutral'. In addition, 10 percentages respondents of them rejected this. It clears that there is less mistake in printing the textbook. It means that majority of the total respondents responded the statement three positively.

Only some students i.e. 28% accepted that all the lesson of the textbook can be finished in time. Similarly, 27 percentages students were in confusion whether all the lesson of the textbook can be finished in time or not. Furthermore, nearly half number of teachers i.e. 45 percentages rejected it. It seems that relevancy of textbook in daily life use may decrease due to the teacher's negligence towards time schedule of teaching lesson.

Most of students i.e. 86 percentages were found positive towards the statement that there are difficult terminologies in the topic. Likewise, 14 percentages students chose 'Neutral'. None of the respondents rejected it. It clears that most of the students felt problematic at any topic of textbook in daily life use.

In conclusion, the overall relevance of the text was observed by asking a numbers of questions. These questions included the arrangement of the topics, the usefulness of the problems in daily life, the difficulty level of the contents etc. There was not much problems in the aforementioned sectors except finishing the text book in time and understanding the mathematical terminologies.

| N  | Mean  | Std. Deviation | T - test |
|----|-------|----------------|----------|
| 84 | 2.097 | 0.264          | 72.729   |

The above table shows that, the mean value of Relevancy of text book in Daily Life Use greater than 2 and the calculated value of  $t$  is greater than its tabulated value (1.64) the questions which are included in table 3 all are seems to problematic.

Regarding the first problem, about not finishing the course book in time , the mathematics teacher was called and queried the reason. He answered that the courses can't be completed in the stipulated time due to the less number of working days. The school hardly opens for two hundred days due to the strike and bandas conducted by various political parties. Apart from that, there are alot of local holidays time and again. These occasion compel to close the school depriving the educational access to the school children.

On the flip side, the text book includes the typical mathematical terminologies which hinder the students in understanding the contents. Mathematics, due to lack of practice, itself is a tough subject which has been made a tougher due to the inclusion of terminologies. The students found some of the terminologies difficult such as: Venn diagram, percentage, ratio and proportion, postulate and theorem, factorize etc. The teacher was dumbfounded regarding the method of teaching these terminologies due to lack of teacher's training. The teacher was not found to be well prepared before going to the class room, also. Moreover, it can be said that relevancy of textbook in daily life use has decrease due to the teacher negligence towards time schedule of teaching lesson. Similarly, analyzing the table by one sample t-test we get the subject matter are not arranged sequentially. The verbal problem of the text books are not useful in daily life.

### **Individual Problems**

The individual problems faced by Tharu children were analyzed and interpreted with 11 questions from questionnaire which is given down.

**Table No. 4****Individual Problems**

| <b>Statement</b>   | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> | <b>Mean</b> | <b>S.D.</b> | <b>Significance</b> |
|--|--------------|----------------|---------------|-------------|-------------|---------------------|
| I follow direction of teacher while class running.                     | 39 (46%)     | 17 (20%)       | 28 (34%)      | 1.64        | 0.816       | 0.000               |
| I bring text book copy and other related materials regularly.          | 15 (15%)     | 18 (21%)       | 51 (61%)      | 2.75        | 0.436       | 0.000               |
| I feel that our teacher's behavior towards us is different from other. | 8 (10%)      | 27 (32%)       | 49 (58%)      | 1.73        | 0.841       | 0.000               |
| I fell difficult to understand Nepali language.                        | 61 (72%)     | 17 (20%)       | 6 (8%)        | 2.71        | 0.528       | 0.000               |
| I feel difficulty talking to the teacher.                              | 67 (80%)     | 13 (16%)       | 4 (4%)        | 2.74        | 0.604       | 0.000               |
| I participate in classroom discussion.                                 | 3 (4%)       | 7 (8%)         | 74 (88%)      | 2.79        | 0.561       | 0.000               |
| Our friends help us for solving mathematics problem.                   | 29 (35%)     | 17 (20%)       | 38 (45%)      | 2.51        | 0.720       | 0.000               |
| I feel hesitation to the share problems in classroom.                  | 66 (78%)     | 15 (18%)       | 3 (4%)        | 2.73        | 0.588       | 0.000               |
| I get equal chances in participation in classroom discussion.          | 15 (18%)     | 37 (44%)       | 32 (38%)      | 1.98        | 0.836       | 0.000               |
| I take class regularly.  | 54 (64%)     | 13 (15%)       | 17 (21%)      | 2.55        | 0.718       | 0.000               |
| I take interaction about subject matter with our friends.              | 3 (4%)       | 24 (28%)       | 57 (68%)      | 2.63        | 0.636       | 0.000               |

The table no. 4 shows that around half number of students i.e. 46% accepted that they follow direction of teacher while class running. Moreover, some students i.e. 20% were not sure whether they follow direction of teacher while class running or not. In addition, 34 percentages students rejected it. It seems that around half of the students were in favor of the statement that they follow the direction of teacher while class running.

Most of the students i.e. 61% were found negative towards the statement that they bring textbook, copy, and other related materials regularly. Likewise, less students i.e. 18 percentages accepted that they bring textbook, copy and other related materials regularly. Likewise, 21 percentages respondents selected 'Neutral'. It shows that the major individual problem of Tharu student is that they do not bring textbook and other related materials regularly. It causes individual problems of Tharu children.

On the other hand, less of the Tharu students (10% only) accepted that their teachers behavior towards them is different than others. Likewise, 32 percentages student selected the 'Neutral'. Then majority of the students i.e. 58 percentages rejected this statement. It causes the most individual problem of majority number of Tharu students due to racial discrimination.

Most of the teachers i.e. 72% responded that they feel difficult to understand Nepali language. Moreover, few respondents i.e. 20% selected 'Neutral' and 8 percentages respondents of them rejected it. It shows that there were language problems among individual Tharu students. They did not understand Nepali language properly as well as Tharu language. It serves as one of the crucial problems faced by the Tharu students at secondary level in compulsory mathematics.

Next is you feel difficulty talking to the teachers which was accepted by almost students i.e. 80 percentages. Similarly, few respondents i.e. 16 % were 'Neutral'. In addition, few respondents i.e. 4% were against the statement. It means most of Tharu students could not easily talk to the teacher within the classroom and without the classroom. It seems very problematic for all most Tharu students to communicate with the teacher.

Majority of the students i.e. 88 % were found negative towards their participation in classroom discussion. After that, few respondents i.e. 8 % chose 'Neutral'. Likewise, Tharu students remained passive in classroom discussion due to the lack of learner-centered teaching learning activities and shyness of the students. Only few students i.e. 4% claimed that they participate in classroom discussion.

According to the 35 percentages students, there is c-operation for solving mathematics problems by their friends. On the other hand, 45 percentages viewed that there is no help for solving mathematics problems by their friends. Moreover, some respondents i.e. 20% chose 'Neutral'. It causes difficulties to solve mathematics problems among friends' group.

Almost all the teachers i.e. 78 % replied that they feel hesitation to share problems in classroom. In addition, only 4 % of students were against this statement. Moreover, only 18% respondents were silent about the statement. It seems that almost all the students were disadvantaged by their shyness and lack of confident.

Few students i.e. 18% responded positively that they get equal chances in participation in classroom discussion. Likewise, nearly half of the students i.e. 44% chose 'Neutral'. Some students i.e. 38% were against the statement that they get equal chances in participation in classroom discussion. It means Tharu students do not get equal chances in participation in classroom discussion.

Majority of the respondents i.e. 64 % responded that they are confusion whether they take regularly the class or not. Moreover, 15 % respondents agreed and 21% respondents disagreed that they take class regularly. It means most of the students are not sure for their class taking regularly or partially.

Majority of the students i.e. 68 % argued against the statement that they take interaction about subject matter with friends. In addition, some students i.e. 28 % chose 'Neutral'. Only few respondents i.e. 4% disagreed the statement. It makes clear that there is the lack of opportunity for Tharu children to interact with their friends about the subject matter.

The problems seen from both the questionnaire and observation form were sorted out. Later on, these problems were queried out whether they were really genuine or not, for this an interview was taken with a student. The excerpt is given down

### **'Respondents A'**

Respondent A is Dhaniram Chaduhari 15 year old boy at grade 10. He has lived in Nawalparasi district, Gorduwa, Divyapuri-1. He had 6 members in his house. He had a poor economic condition. To arrive the school from the home, it takes at least 15 minutes.

He could not finish his homework due to insufficient time to do homework. His parents were uneducated and worked as the farmer. Their economic condition mostly depended on agriculture. He had to work with his parents in the meadow i.e. planting the rice. His parents did not provide him books, copies, dresses and other materials sufficiently. As a researcher, I asked him about educational atmosphere of his house and economic status. He replied that their economic and educational status is poor. He did not have good learning atmosphere at home. There were more uneducated people in village also.

After this, I asked another question, do you have a time to do homework? Then he said "I have no time to do homework because I have to do the agricultural works. Every day, I have to finish all household works. My father opines that son should support his fathers business for him, study doesn't mind any value". As a researches, I couldn't find appropriate educational and social environment of his home.

### **Respondent B**

Bidhya Khojwor is a 17 year old girl studying at grade 10. She was born at Narayani -06, Nawalparsa district. Her economic condition is medium. It takes 20 minutes to go to school from her home. I asked her the question about her individual problems faced in mathematics classroom. She said "I feel difficult speak Nepali language because we are Tharu people and we speak Tharu language most of the time

in our community". And we also have different culture as well as language we speaks only Tharu language in our home. We rarely speak Nepali language with neighbors and teacher teaches mathematics in Nepali language, we feel difficult to talk Nepali language and understand Nepali. I rarely participate in classroom discussion due to linguistic problem, hesitation and shyness of mine I felt hesitation because my knowledge and practice of mathematics is poor due to lack of self-confident.

Ogbu (2001) also argues that discontinuity is also occurred in the area of language, through the measurement. The majority group always dominates to minority group. It happens mainly due to the difference between teaching and learning strategy in the home. Similarly, the children learn in school environment without natural context in their experience, learning may have no any significance to their everyday life. Tharus are one disadvantaged minority indigenous group; they are dominated and compelled to the way from the access of education and other fundamental part of their life.

| N  | Mean  | Std. Deviation | T - test |
|----|-------|----------------|----------|
| 84 | 2.431 | 0.130          | 170.433  |

The above table shows that, the mean value of Individual Problem greater than 2 and the calculated value of t is greater than it's tabulated value (1.64) the questions which are included in table4 all are seems to problematic.

So, the findings were ultimately matched. The Ogbu's theory, responses of questionnaire and interview of students were the same. A lot of individual problems in the classroom were found out. Most of the students admitted that they were not regular because of the involvement in different festivals . Likewise, understanding the Nepali language, participation in classroom activities, cooperation among the friends, hesitation to put forward the questions etc. were seen as the main problems individually among the students. They were also found to be dominated by the majority group of people living the area. After the questionnaire survey, two respondents were individually asked whether these problems really existed in their daily life. They accepted the reasons found in the questionnaire survey. Some of them were economically poor where as other were culturally backward. They couldn't grasp the subject matters taught in the class room.

## Problems Related to Socio-Economic Condition

Socio-economy of students includes their home environment, parents (educated or not), parent's economic status and socio status. The students who have good environment at home, whose family is educated and who get proper guidance at home gets better learning achievement better than other does.

**Table No. 5**

### Socio-Economic Condition

| Statement   | Agree    | Neutral  | Reject   | Mean | S.D.  | Significance |
|---|----------|----------|----------|------|-------|--------------|
| I get sufficient time for doing homework.                                       | 13 (16%) | 19 (22%) | 52 (62%) | 2.63 | 0.655 | 0.000        |
| Our parents' are educated.  | 7 (8%)   | 21 (25%) | 56 (67%) | 2.62 | 0.638 | 0.000        |
| Our parents' economic condition is strong.                                      | 28 (34%) | 9 (10%)  | 47 (56%) | 2.68 | 0.604 | 0.000        |
| Our parents' provide us book, copies, dresses and other materials sufficiently. | 41 (50%) | 20 (23%) | 23 (27%) | 2.60 | 0.642 | 0.000        |
| Government and non-government agencies provide scholarship for us.              | 0        | 13 (15%) | 71 (85%) | 2.79 | 0.413 | 0.000        |
| Our school administration helps us economically.                                | 5 (6%)   | 17 (20%) | 62 (74%) | 2.73 | 0.546 | 0.000        |

From the given table no. 5, in statement first, out of the total number of respondents 84, 52 respondents i.e. 62 % responded the first statement negatively. Few respondents i.e. 16% agreed that they get sufficient time for doing homework. Only students i.e. 22 % chose 'Neutral'. It reveals that Tharu children do not get sufficient time to do homework because they have to do agricultural works at home.

Majority of the students i.e. 67 percentages responded that their parents are uneducated. Only the students i.e. 8 % accepted that their parents are educated. Similarly, some students i.e. 25 % selected the option 'Neutral. It has been a crucial cause for dropout of Tharu students.

Similarly, more than half of the students i.e. 56 percent rejected that their parents' economic condition is strong. Moreover, only few students i.e. 10 % chose 'Neutral'. Likewise, some students i.e.34 % were found positive towards the statement that It is not going to be easy to buy the books, copies, dresses and so on due to poor economic condition for half number of students i.e. 50%. Nearly, all the students i.e. 85 % didn't get scholarships from government and non-government agencies, none of them accepted it. Government and non-government agencies had not provided any scholarship and scholarship program. Likewise, seventy four percentages of students responded that their school administration doesn't help them economically.

After analyzing the questionnaire, a number of problems were found. To find out the fact, the observation form was taken (from the sample of Mohani Lal Kafle in his thesis entitled “A Study on Problems Faced by Tharu Children in Mathematics Classroom at Lower Secondary Level) which is given down.

### **Observation Form**

| <b>Observed Items</b>     | <b>Good</b> | <b>Neutral</b> | <b>Poor</b> | <b>Mean Weightage</b> | <b>Remarks</b> |
|---------------------------|-------------|----------------|-------------|-----------------------|----------------|
| Socio-economic problems   |             |                |             |                       |                |
| Financial support         | 8           | 0              | 16          | 2.3                   | P              |
| Scholarship programme     | 9           | 0              | 15          | 2.2                   | P              |
| Availability of materials | 5           | 4              | 15          | 2.4                   | P              |

It has become rarely to get support from school administration to Tharu students. It shows that there is lack of clear agenda to encourage the Tharu students to come school regularly. From the observation form, we knew that the less of Tharu students got financial support. Thus, it is very challenging problem for Tharu students. Most of the Tharu students were from the low economic status. It disturbs the teaching learning activities of Tharu children for mathematic learning. Less

number of Tharu children got scholarship from schools but not sufficient. Government and non-government agencies had not provided any scholarship and scholarship programme. At last, we came to the conclusion that Tharu children are facing the problems while the mathematics learning i.e. parents negligence towards children's education, low-economic condition, engaging on farming, linguistics variety etc.

### **Parent's Responses**

Mahendra Mahato is the permanent resident of Nawalparasi district at Kolhuwa-01. His main occupation is agriculture. He has two sons and three daughters. Among them two sons one daughter are studying in Kumarbarti Higher Secondary School, Kolhuwa. The research asked him the question "why don't you send your children to the school regularly?" He said "There are more household works for survival of my family. Due to the lack of money, I couldn't afford the other workers. I compelled to convince to my children to do household works. My wife is sick frequently. Because of not providing sufficient helping from NGO and INGO, I could not send my children regularly. Sometime, I could not manage copies, books and pens due to lack of money and time".

### **Respondent C**

Here, Muna Chaduary is the respondent who is a sixty- year- old woman. She had seven members in her family. Her economy condition is very poor. I asked her about her children's scholarship. She answered that Government and non-government rarely provide scholarship for them. There is no special provision of governmental and non-governmental scholarship for Tharu students. The school administration neglects them in case of scholarship. School administration did not provide them copies, dresses and money.

| N  | Mean  | Std. Deviation | T - test |
|----|-------|----------------|----------|
| 84 | 2.672 | 0.199          | 122.792  |

The above table shows that, the mean value of Socio- economic Condition greater than 2 and the calculated value of t is greater than its tabulated value (1.64) the questions which are included in table 5 all are seems to problematic.

In summary, the students were found academically backward because of the socio-economical condition. Most of the students were from the family who were under the poverty line. These students had to work in the field even by leaving the classes. Likewise, they couldn't manage their educational materials due to the lack of money. In this condition, the governmental, nongovernmental and administrative sectors as a whole seem to fail to bring this group of people up to School and run their educational activity efficiently. Consequently, I took the parents' responses, too. These parents too admitted these reasons. They added that they could not afford for their education.

The classroom is a miniature society. On the basis of above data analysis and interpretation, as a researcher, I conclude that Tharu students are facing many problems in Mathematics classroom i.e. classroom management and environment, poor economic status, language, students activities, teacher's activities, home environment etc. which affect the mathematics learning of Tharu students. It is said that home environment of Tharu students is not in favor of the mathematics of learning and school environment is not conducive for the mathematics learning.

## CHAPTER – V

### SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter is concentrated in deriving some findings from the discussion of chapter IV. This chapter includes the summary of the study, the conclusions derived from the analysis and interpretation of the previous chapter and the recommendation of how these findings can be used in the academic field.

#### **Summary of Finding**

The demand of mathematics has been increasing day by day. Mathematics has become necessary for various fields i.e. chemistry, biology, physics, engineering, psychology, management, economic, social, science and so on. We are in the era of Information Technology (IT). Mathematics is also one of the important elements of IT. Without mathematics, we cannot imagine the human civilization.

The researcher has done different activities to complete the objectives of the study like questionnaire, classroom observation and interview. The main purpose of the study was to analyze the problem faced by Tharu children in mathematics classroom. Furthermore, another aim is to find out causes of difficulties faced Tharu students in mathematics classroom. This is a survey research related to difficulties in learning mathematics of Tharu children of Nawalparasi district at secondary level. To achieve the objectives of the study, the researcher analyzed and interpreted with questionnaire which was collected among 84 students as the respondents. Likewise, researcher filled 24 classroom observation forms. Similarly, three interviews were conducted among students as a respondents. One interview was conducted with the mathematics teacher and similarly one interview was conducted with headmaster as the respondent. At last, researcher conducted an interview with a parent of Tharu children. With the help of analysis and interpretation and collected data of the study, the summary of this research are given below.

- a) Most of Tharu children could not speak Nepali language. They felt difficult to speak to speak Nepali language due to language discontinuity at home and school. Tharu children friendly use their mother tongue.

- b) Most of the parents of Tharu children are uneducated. Thus the Tharu children are facing the lack of support from their parents towards their education.
- c) There is the lack of interaction between the teacher and Tharu students due to lack of confidence, shyness and hesitation.
- d) Likewise, there is the lack of interaction among students, especially Tharu children have poor interaction with other children due to the language problem. It causes difficulties for sharing problems between Tharu children and other children. Tharu children were not supported by other children for solving mathematics problems.
- e) Many students are staying in the same class. Due to over-crowded, the seat planning was not managed properly. Similarly, furniture desks benches etc. are not sufficient to the number of students. Many Tharu children were being teased by their friends. It causes disturbances in mathematics classroom. Most of teachers could not manage individual instruction for weak students.
- f) Most of the teachers face the problem in the selection of suitable teaching methods. It has been found that the teacher does not address to their creativity and curiosity. It has been problematic for teacher to use various evaluation techniques. More than half of the teacher ask questions in the classroom. Majority of the teachers does not check student's homework daily. Teacher rarely provide the feedback to the Tharu children.
- g) Most of the students responded that it is difficult to finish all the lesson of textbook in time. They face difficulties for any topic.
- h) There is the least opportunity of Tharu children for providing scholarship from government and non-government (NGO and INGO). It has been found that most of the school administration does not help economically the Tharu children.

## **Conclusion**

On the basis of above major findings the researcher have found the following conclusions:

- i. Due to domination of language, Tharu children cannot speak Nepali language properly. It creates difficulties in mathematics learning.

- ii. There are many difficulties in mathematics learning of Tharu children due to the lack of proper environment at school as well as home.
- iii. The Tharu students must be regular for mathematics learning.
- iv. The teacher should address the interest, curiosity and need of Tharu children in mathematics classroom.
- v. There are the low participation on classroom discussion.
- vi. Tharu students felt difficulties for learning mathematics due to cultural discontinuity.
- vii. More financial support should be provided to the Tharu students i.e. scholarships from NGO and INGOs.
- viii. More learning opportunity should be created for Tharu students in mathematics learning classroom.

### **Recommendations**

According to the findings and conclusions provided by the study, the recommendation for further study can be presented as:

- i. This study is useful for the researcher for further study.
- ii. This study affords new researcher to conduct new research which can be used a secondary sources.
- iii. The Government of Nepal should supply the essential teaching materials and should encourage school administration to purchase such teaching materials.
- iv. A similar study can be done for lower secondary and primary level.
- v. The classroom management and environment should be arranged. Every student should have equally change to participate in the mathematic classroom.
- vi. It would be better to study the problems of mathematics teaching learning situation not only by using questionnaire, observation and interview but also other tools.
- vii. The similar study can be done in the other district of Nepal as well.

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**Annex I**  
**Questionnaire**

| <b>Statement</b>   | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> |
|--|--------------|----------------|---------------|
| It is difficult to participate in learning activities in huge classroom.     | 55 (65%)     | 18 (21%)       | 11 (14%)      |
| Anything written in blackboard is visible.                                   | 22 (26%)     | 0              | 62 (74%)      |
| The room is very congested.  | 43 (52%)     | 27 (32%)       | 14 (16%)      |
| There is noisily environment around the classroom.                           | 57 (69%)     | 13 (15%)       | 14 (16%)      |
| Furniture and blackboard management are sufficient in classroom.             | 15 (18%)     | 10 (12%)       | 59 (70%)      |
| Our friend teases to you in the classroom.                                   | 63 (75%)     | 0              | 21 (25%)      |
| Our friend disturbs us by side talking throwing cheat etc. in the classroom. | 62 (74%)     | 0 (35%)        | 22 (26%)      |
| We involve in classroom discussion.  | 5 (6%)       | 5 (6%)         | 74 (88%)      |

| <b>Statement</b>  | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> |
|---|--------------|----------------|---------------|
| Mathematics teacher gives suitable example relating to daily life use.                    | 43 (52%)     | 22 (27%)       | 19 (21%)      |
| Our teacher makes us understand to solve the problem by using our mother language.        | 15 (18%)     |                | 69 (82%)      |
| The teacher addresses our creativity and curiosity.                                       | 18 (21%)     |                | 66 (79%)      |
| There is a problem in the selection of suitable teaching methods.                         | 59 (71%)     | 13 (15%)       | 12 (14%)      |
| Teaching is only exam oriented.   | 56 (66%)     | 25 (30%)       | 3 (4%)        |
| The teacher checks our homework daily.  | 0            | 25 (30%)       | 59 (70%)      |
| Teacher gives the feedback.   | 43 (52%)     | 26 (31%)       | 15 (17%)      |
| Sometimes our teacher uses our language while teaching.                                   | 14 (17%)     | 20 (24%)       | 50 (59%)      |
| The teacher provides a lot of examples and teaching materials while teaching mathematics. | 11 (13%)     | 13 (16%)       | 60 (71%)      |
| Our teacher asks question to us in classroom.   | 13 (16%)     | 25 (30%)       | 46 (54%)      |
| Our teacher manages individual instruction for weak                                       | 9 (11%)      | 13 (16%)       | 62 (73%)      |

|  |          |          |          |
|--|----------|----------|----------|
| student.   |          |          |          |
| Our teacher motivates us for practising mathematics in classroom | 15 (18%) | 26 (31%) | 43 (51%) |

| <b>Statement</b>  | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> |
|---|--------------|----------------|---------------|
| The subject matter are arranged sequentially.                           | 37 (44%)     | 43 (51%)       | 4 (5%)        |
| The verbal problem of text book are related to your daily life.         | 49 (58%)     | 27 (32%)       | 8 (10%)       |
| There is no mistake in printing.  | 55 (65%)     | 21 (25%)       | 8 (10%)       |
| All the lesson of the textbook can be finished in time.                 | 24 (28%)     | 23 (27%)       | 37 (45%)      |
| There are difficulties in understanding the mathematical terminologies. | 73 (86%)     | 11 (14%)       | 0             |

| <b>Statement</b>   | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> |
|--|--------------|----------------|---------------|
| I follow direction of teacher while class running.                     | 39 (46%)     | 17 (20%)       | 28 (34%)      |
| I bring text book copy and other related materials regularly.          | 15 (15%)     | 18 (21%)       | 51 (61%)      |
| I feel that our teacher's behavior towards us is different from other. | 8 (10%)      | 27 (32%)       | 49 (58%)      |
| I fell difficult to understand Nepali language.                        | 61 (72%)     | 17 (20%)       | 6 (8%)        |
| I feel difficulty talking to the teacher.                              | 67 (80%)     | 13 (16%)       | 4 (4%)        |
| I participate in classroom discussion.                                 | 3 (4%)       | 7 (8%)         | 74 (88%)      |
| Our friends help us for solving mathematics problem.                   | 29 (35%)     | 17 (20%)       | 38 (45%)      |
| I feel hesitation to the share problems in classroom.                  | 66 (78%)     | 15 (18%)       | 3 (4%)        |
| I get equal chances in participation in classroom discussion.          | 15 (18%)     | 37 (44%)       | 32 (38%)      |
| I take class regularly.  | 54 (64%)     | 13 (15%)       | 17 (21%)      |
| I take interaction about subject matter with our friends.              | 3 (4%)       | 24 (28%)       | 57 (68%)      |

| <b>Statement</b>  | <b>Agree</b> | <b>Neutral</b> | <b>Reject</b> |
|---|--------------|----------------|---------------|
| I get sufficient time for doing homework.                                       | 13 (16%)     | 19 (22%)       | 52 (62%)      |
| Our parents' are educated.  | 7 (8%)       | 21 (25%)       | 56 (67%)      |
| Our parents' economic condition is strong.                                      | 28 (34%)     | 9 (10%)        | 47(56%)       |
| Our parents' provide us book, copies, dresses and other materials sufficiently. | 41 (50%)     | 20 (23%)       | 23 (27%)      |
| Government and non-government agencies provide scholarship for us.              | 0            | 13 (15%)       | 71 (85%)      |
| Our school administration helps us economically.                                | 5 (6%)       | 17 (20%)       | 62 (74%)      |

## Annex II

### Observation Form

| Observed Items  | Good | Neutral | Poor | Mean<br>Weightage | Remarks |
|---|------|---------|------|-------------------|---------|
| Classroom Management and Environment                  |      |         |      |                   |         |
| Classroom size  | 8    | 4       | 12   | 2.2               | Problem |
| Cleanliness   | 14   | 4       | 6    | 1.7               | N.P.    |
| Availability of furniture                             | 6    | 5       | 13   | 2.3               | P.      |
| Seat planning of students                             | 7    | 6       | 1    | 2.1               | P.      |
| Arrangement of blackboard                             | 16   | 4       | 4    | 1.5               | N.P.    |
| Classroom environment                                 | 5    | 7       | 12   | 2.8               | P.      |
| Teacher's and Student's Activities in<br>Classroom    |      |         |      |                   |         |
| Greeting to the teacher while entering the<br>class   | 20   | 2       | 2    | 1.3               | N.P.    |
| Follow up direction of teacher                        | 3    | 8       | 13   | 2.4               | P       |
| Availability of textbook, copy and other<br>materials | 7    | 7       | 10   | 2.1               | P       |
| Completion of classwork                               | 18   | 0       | 6    | 1.5               | N.P.    |
| Completion of assigned homework                       | 12   | 8       | 4    | 1.7               | N.P.    |
| Participation in classroom discussion                 | 4    | 3       | 17   | 2.5               | P       |
| Talking with teacher                                  | 3    | 2       | 19   | 2.7               | P       |
| Student to student cooperation                        | 5    | 3       | 16   | 2.4               | P       |
| Sharing the problems in classroom                     | 2    | 2       | 20   | 2.7               | P       |

|   |    |   |    |     |      |
|---|----|---|----|-----|------|
| Interaction of teacher and student              | 6  | 3 | 15 | 2.4 | P    |
| Regulation of student                           | 7  | 5 | 12 | 2.2 | P    |
| Interaction about subject matter among students | 4  | 2 | 18 | 2.6 | P    |
| Teacher's activities and school administration  |    |   |    |     |      |
| Homework assigning                              | 4  | 8 | 12 | 2.3 | P    |
| Classroom assigning                             | 3  | 7 | 14 | 2.4 | P    |
| Homework checking                               | 2  | 2 | 20 | 2.7 | P    |
| Classwork checking                              | 6  | 7 | 1  | 2.2 | P    |
| Level of motivation                             | 5  | 5 | 14 | 2.4 | P    |
| Speaking voice                                  | 15 | 7 | 2  | 1.4 | N.P. |
| Use of re-enforcement                           | 6  | 5 | 13 | 2.3 | P    |
| Encourage to student                            | 7  | 4 | 13 | 2.2 | P    |
| Classroom discussion method                     | 3  | 6 | 15 | 2.5 | P    |
| Interaction with all students                   | 2  | 4 | 18 | 2.7 | P    |
| Providing extra class for weak students.        | 0  | 8 | 16 | 2.7 | P    |
| Socio-economic problems                         |    |   |    |     |      |
| Financial support                               | 8  | 0 | 16 | 2.3 | P    |
| Scholarship programme problematic               | 9  | 0 | 15 | 2.2 | P    |
| Availability of materials                       | 15 | 4 | 5  | 1.6 | N.P. |

## Annex III

### Guidelines for interview with secondary math

Date of interview ..... Religion .....

Name of teacher ..... Sex.....

Qualification ..... Age .....

Trained/ untrained.....

Teaching experience .....

Address .....

The interview with Mathematics teacher will take under the following topics.

- Teaching Strategy
- Home environment
- School environment
- Study time
- Socio-Economic Condition

Interview question for Teachers.

1. How do you think is School environment is Suitable for studying Mathematic ?
2. How do you manage mathematics classroom ?What are the problems in classroom ?
3. Is motivation affects teaching mathematics and how?
4. Do peers group affect problem in Mathematics ?
5. Which are the most responsible factors for Tharu students faced problem in Mathematics classroom?

## Annex IV

### Guidelines for interview with parents

Date of interview ..... Religion .....

Name of Parents..... .. Sex.....

Qualification ..... Age .....

Address

The interview with parents will take the following topic.

- Home environment
- Socio- economic Condition
- Scholarship for NGO, INGO and school.

Interview question for Parents.

- Why you don't send your children to the school regularly?
- What is your main Income Sources?
- Your children get some time scholarship from any NGO, INGO and School?
- How you manage book, copies and related materials for your children?

## Annex V

### Guidelines for interview with Students

Name..... Religion .....

School..... .. Sex.....

Class ..... Age .....

Address

The interview with Students will take under the following topic.

- Speaking Nepali Language
- Home environment
- Economic Conditions
- Classroom Environment
- Individual Problems

#### Interview Question for Students.

1. You can speak Nepal language properly?
2. Your parents provides you book, copies and other related materials for you?
3. You get Scholarship from any NGO, INGO and School?
4. You Get equal change in participation in classroom discussion?
5. You feel difficulty while speaking to the teacher?