# CHAPTER-1

# INTRODUCTION

## Background of the study

Yadav is category consisting of several allied castes which together constitute about 4% of the total population of Nepal (Census 2010). Yadav is a caste found in Nepal, India, Sri Lanka, Pakistan. And claims decent from ancient King Yadu, meaning "Give People" is the common name give to most ancient Vedic Kshatriya clans. The Yadav caste generally follows Vaishnav tradition and share Vaishnav Dharmic religious beliefs. They are the worshipper of Lord krishna or Lord Vishnu. Yadav in Hinduism and remained in power in Nepal and India until 1200-1300AD, before the arrivals of Muslims invaders, (YadavAjay, 2069 B.S.)

The presence of Yadav in Nepal is very ancient. In fact the history and local traditions say that near kathmandu, exists a very ancient city by the name "Gorakhanagar" meaning the town which protects its cows. The cow herd then approaches a Hindu sage who was living on the confluence of rivers Bagmati. They used to perform religious ceremonies at Teku. The Gopal Dynasty was established in Nepal 500 Years. They selected Bhuktaman to be the First King in the line of the Gopal Dynasty.

Yadav are also Known as Yadav, Abhir, Gop, Gopal, Rawat Gurmaint, Ghosh, Ghosin, Goit, Bhidwar etc. most of Yadav is related to farming. They farm well and products paddy, animal rearing. Their life is not going well as they would as much as good. (Yadav Dinesh)

Brian lack (Altana,C.,2010) The classroom Involvement can be used in far more productive ways to encourage students confidence. This generally means that students of today are expected to take a more active &meaningful role in the learning process, which often translate to classroom behaviors such as verbal or written

reasoning discussion, debate & Inquiry. Instead of responding succinctly to questions that have predetermined answers, students in today's standards-based classroom are expected to address researcher, more complex questions that draw on their ability to monitor, reflect on, and communicate their thinking process,

Because the vision of mathematics education reform has placed greater emphasis on students ability to effectively communicate their mathematical understandings, the nature of classroom discourse (i.e., student to student, student -to-teacher) has become an important instructional element of standards-based elementary & middle school mathematics classroom(silver& smith, 1996; walshaw and Anthony,2008) Mathematics classroom that espouse rich discourse are widely viewed as a remedy to the traditional form of Instruction that have rendred students as passive learners & often left them with only Superficial understanding of mathematics (cob,Wood&Yackel,1990). However, endorsement of discourse -rich mathematics instruction for the mere sake of increasing the ratio of students initiated talk to teacher talk underestimates the complexity of discourse as an effective instructional inter-version for all students (Nathan and knath, 2003).

**Statements of the Problem**

Yadav students are quite fair and state in nature so that they generally dace different problems while learning mathematics. As we know, mathematics is a completely different discipline from another like sociology. Psychology, economics etc. it is quite structural rather than other but both theoretical and practical. So highly attention in needed for mathematics teaching and learning in the classroom.

While discussing mathematics achievement in classroom, yadav students are generally weak at performance level. So, the researcher intended to find out the achievement level of yadav students in the classroom while teaching and learning process is going on. The researcher also intended to find out the

participation/involvement of the yadav students whether they play the active role in the class or not the researcher, here, tried to find out all the activities like regularities, classwork, interaction, homework behaviors and understanding and so on.

The researcher intends to find the causes of difficulties in learning mathematics of Yadav students. The study also concerns the teaching methods used by teachers. Use of instructional materials and how they motivate Yadav students. The study intends to find the causes of the most failure rate or low achievement in mathematics subject of Yadav students. Also we must find out what are the reasons behind it in comparison with the other cast of research area. Also we have find out the poor performance of Yadav students in Mathematics classroom.

- How Yadav students do their activities in the mathematics class room?
- How do Yadav students interact in mathematics class room?

**Objectives of the Study**

The following was the objectives of the study

- To analyze the activities on the mathematics classroom of Yadav students
- To explore the way of interaction in Mathematics classroom.

**Significant of the Study**

Mathematics is one of the popular famous & important subjects of the school level curriculum, compulsory mathematics being taught in school, this research related to "Exploring Yadav student's involvement in mathematics class room "Which important is as follows.

- It provide contemporary information about difficulties in learning mathematics.
- This study helps for teacher who teaching at lowers secondary level.
- It also useful for curriculum designer and local NGO and INGO
- This study is helpful for further research about Yadav community
- The study helps school administration to manage mathematics class room

**Delimitation of the Study**

To establish limit as the line that indicates boundary and the boundary line comparing an area object. Delimitation is the drawing of boundaries, particular of electoral precincts, state countries or others. In international law, me related national delimitation is the process of legally establishing the outer limits (borders) of a state within which territorial or functional sovereignty is exercised. Occasionally this is used when referring to the maritime boundaries as well, in this case called maritime delimitation.

Countries Delimitation electoral districts in different ways. Sometimes these are drawn based on traditional boundaries, sometimes based on the physical characteristics of the region and often, the lines are based on the social, political and cultural context of the area. This may need to be done in any form of electoral system even through it is primarily done for plurality or majority electoral system.
This process ofboundarydelimitation kind have a variety of legal justification. Often, because of the powerful effects this process can have on constituencies the legal framework for delimitation is specified it the constitution of a country. The institute of democracy and electoral assistance (idea) recommends the following pieces of information be included in this legal framework. The frequency of such delimitation. The criteria for such delimitation, the degree of public participation in the process, the respective role of the legislature, judiciary and executive in the process.

- Two government schools in sarlahi district is selected in this study intends study
- This is limited to only class 8 students ofYadav community.
- This study is limited to grade viii students and conducted four Mathematics subject.

## Operational Definition of Terms

### Yadav Students

Only Yadav Community students whose culture & tradition are in specially in Middle & East Terai region of Nepal. They often called cowherd. Most of Yadav Community is related to farming & Agriculture.

### Classroom Activities

Students learn through their participation in the attainment of knowledge by gathering information and processing it by solving problems and articulating what they have discovered. Each activity below provides students with opportunities to deepen their learningby applying concepts &articulating new knowledge. And these activities also provide the instructor feedback about the students learning.

### Interaction

The activities which are done in mathematics classroom such as group discussion towards about proper topic, problems, and conception of related to mathematics context.

### Regularity

The students of class YE taking regular class as daily. It also requires teachers to attend and listen closely to their students noticing and express regularity in repeated reasoning.

### Homework

Homework, or a homework assignment, is a task given by teacher at home.

### Factors

Factors are numbers you can multiply together to get another number or elements such as 2 &3 are factors of 6 because 2x3=6

**Activities**

The work done by students in mathematics classroom or related activities done in the home as for example homework, classwork, solving related problem of mathematics.

**Motivation**

When the teacher started to take pay attention the students in the proper topic or related solving problem of mathematics.

**Interaction**

The eagerness of students about proper topic, books and work etc.

# Chapter II

## LITERATURE REVIEW

Review of the related literature is one of the integral part of research. It enables the researcher to do fine intellectual perdition that has been drawn in the study of the researcher's Topic. Through this, researcher should gain out the experience of others.

A summary of the writing of recognized authorities and of previous research provides evidence that the research is familiar with what is already known and what is still unknown &untested. Because effective research is based on past knowledge, this step helps to eliminate the duplication of what has been done & provides useful hypothesis & helpful suggestions for significant investigation citing studies that show substantial agreement those to present conflicting conclusion helps to sharpen &define understanding of existing knowledge in the problem area, provides a background for the research project and makes the reader aware of status of the issue. To conduct this research also some related Literatures have been reviewed which are summarized below

### Empirical Literature

Pant (2006) in his doctoral dissertating entitle "A Study of Learning difficulties in Mathematics in the Kathmandu Valley of Nepal" did a study in government and private schools of Kathmandu Valley. He took the students, teachers and parents of the selected schools as his respondents and found that the school related factors (quality if school program, quality of teachers, time allotment), class specific factors (quality if school program, quality of teachers, time allotment), class specific factors (quality of instruments, time for learning, opportunities of learning, relationship withstudents), home related factors (parental help, economic support),social factors (home culture and school culture difference, languages of school and home), personal factors ( time for learning and motivating) are the main factors which influence the mathematics

learning.

Adhikari (2007) has conducted a research on "Learning culture in mathematics classroom in an effective school".

He found the school has provided simulating environment for mathematics learning with adequate physical facilities provided more qualified and experienced teacher for each and every subject has higher achievement. The study also found that the study with unmatched of dissimilar home culture with school culture they do not have much recognition and they have to work hard achieving learning outcomes compared to their children with matching cultures.

Hiebert, Carpenter, Fennema, Fuson, Weame, Murry, Oliver and Human (1997), identified the social culture four features for the social culture in a problem centered classroom. We consider these aspects to be essential for learners' mathematical development. All ideas are potentially important and should therefore be respected. Autonomy of methods should be encouraged. The need of very child to understand the methods he or she is using must be respected. The children should also realize that variety of methods can lead to the correct answer. Therefore, they should have the freedom to explore and share these methods with their peers. Mistakes must be seen as learning opportunities and discussion that might deepen learners' understanding of the problems. The authority for the correctness of the problems solution lies in the structure of the problem and not in the teacher or the other children. A method is not necessary correct just because a popular child present it.

Joshi (2008) conducted his study on effect of classroom management in mathematics at lower secondary level. In the qualitative model, related to the behavior of students and situation of physical facilities in schools, it was his main concern. Observation term a questionnaire for teachers and students and unstructured interview schedule for the students were used to collect primary data for six primary school from

Kathmandu district. The study showed that the management of mathematics classroom was not satisfactory. Most of the classroom did not have the appropriate arrangement of students, desk, benches, black-board and space. There was over crowed classroom besides the size of classroom, leaking roofs. Clean drinking water, lack of clean toilet, teaching materials are the other problems seen in the study. The arrival times of teacher in the classroom, students fighting each other, using vulgar words and language were the most appearing disciplinary problems in the mathematics classroom. The researcher came to know that there is a close relationship between physical facilities and mathematical achievement, if physical facilities were adequate the students automatically motivated and physical facilities have physical and mental impacts on the parts of students which effect mathematical achievement. The class room involvement can be used in far more productive ways to encourages student's confidence. Three categories of powerful tools taken together

Ogbu, (1982) argues that the primary and secondary cultural discontinuity also causes the difficulty in learning and he argues that the children from disadvantaged caste tend to develop coping behavior and attitudes that are different to school culture that affects their learning.

Ogbu, (2010) argues that dominant group gets school system in accordance to their own convenience and belief, e.g. their norms, value and aspirations in the curriculum and teaching learning approaches that suitable to them. But dominated groups gets on education system. So, it is difficulty in learning and cause of failure, dropout. There are always dilemmas that the dominant group doe not know or does not want to know about the cultures of subordinate group by saying difficult to know because of the multicultural existence of children in school/society. It is just an escaping trend and nature of the dominant group, the higher caste..... people from including the subordinate group of disadvantage group into the mainstream. Similarly,

although the subordinate groups knew the culture of dominant group, they do not need to practice other's culture because their tradition does not get them to act like member of the dominant.

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

**Review of Theoretical Literature**

Review of theoretical literature refers to the act of considering all the relevant theories that have concern with the topic being dealt with in the proposal or thesis. A theoretical review would include reference to those works that are necessary for the analysis (although subjectively omitting works that may run counter to the analysis is not acceptable in a scientific work). The theoretical review should be rigorous. The researcher needs carry review of theoretical literature to be sure of the theories that have connection with the topic being researched.

**Constructivism Theory**

In this study on the obstacles faced but the learners on the topic Exploring Yadav student involvement in mathematics classroom "Obstacles faced by Yadav students in learning mathematics" enlightened by constructivist theory of learning, this theory assumes that concepts are not taken unchanged directly from experience, but that a person's ability to learn and what they learn depends on the quality of ideas that they bring to new experience, Knowledge is not entirely derived from experience but it regard as a combination of experience as well as one's knowledge that a person's mind is active most of the time and on each occasion that he mind receives information so that it makes sense or sis usable.

Oliver (1989) asserts that it cannot be assumed that knowledge can be transferred intact from one person to another. Where the learners is viewed as a simple recipient to take it as is. The view is also shared by Luneta and Maloney (2012) who suggested that learners come into the classroom with relatively homogeneous import view of mathematics capable of assimilating and value mathematical understanding when the subject is being taught. The asserting that learners do not come into the classroom as "empty vessels" that need to filled with knowledge is quite realistic during the introduction of a new topic if a teacher throws some poring question to the learners as way of assessing what they already know, they find out that learners respond to most of question although the response might not be necessarily correct. The fact that learners provide some responses to most of the questions given to them confirms that they have some idea of their own when they come into the classroom.

The constructivist theory of learning regards the learners as an active participant in the constructing of their own knowledge and the learner existing ideas and new ones interact the new ideas being interpreted and understood in the light of the learners' parents' knowledge with foundation on the previous experience (Hatano, 1996; Cobb, 1994). The learning actively according to the constructivist perspective is not a matter of addingor stock piling new concepts to the ones that the learners already have but rather leadsinto changed in our schema

Siegler (1995) argued that there are two very important aspects that need to e understood namely assimilation and accommodation which are defined as follows: assimilating is in co-operating of some new recognizable familiar encountered idea into an existing schema (inter-related in the existing schema and cannot be assimilated than reconstruction and re-organization take palace so that, a new schema is formed. Thus to the constructivist learning leads to change in our schemas according to Oliver (1989), propounds that misconceptions are of importance to teaching and learning

because misconceptions constitute a learners conceptual structure that interact with new concepts and influence new learning.

There are so many theories which can be used for the analysis and interpretation of the data are constructivist theory, social cognitive theory. Can-oil's school learning theory, cultural difference and discontinuity theory, which is suitable for the study.

**Discontinuity Theory**

Marsella, Triandis (1979,1994) discontinuity theory, that deal with that the level of analysis is appropriate individual cultures such as the problems of children's learning caused by the differences and discontinuity between the culture of home and school. The children whose environment getting match with school environment brings the good result, and the children whose environment do not get matched with school environment they don't pay attention on the study. And their results are low so the environment is also most effective factors in learning.

**Activities**

Exploring yadav students activities in mathematics classroom. Activities of yadav students in mathematics classroom:

The classroom is usually motivated by a desire to give students an opportunity to learn through active participation in the class room. This motivation however, needs clarifications. What exactly is meant by participation is not all learning active, whether from a book a lecture, or a small group activity piagets says that learning occurs not when a person merely copies an idea, but when a person acts on it. When people real learn something it will be because they have developed a system of ways to (activity) transform the object of their thought perhaps the classroom is provides opportunity for students through variety of different kinds activity in the classroom. It important that Yadav students doing their homework classwork, introduction with their peers and teacher about related problems or topic. Also it effects that learning process. It includes

that motivation, solution of related problems in mathematics.

**Object oriented activity**

All activity is directly towards something that exists objectively in the world. For Jonassenetal (1999) the object is the primarily focus of the activity system.

The subject of any activity is the individual or group of actors engaged in the activity. The object of activity is the physical or mental products that is transformed. Tools can be anything used in the transformation process. The use of culture-specific tools shapes the way people act and think. Tools alter the activity and are in turn altered by the activity. The activity consists of goal - directed actions that are used to accomplish the object task action &operations that transform the object.

The notion of the object is not restricted to materials objects. Socially &culturally determined properties also have an objective existence &can be studied with objective method has led to some confusion and conceptual 'fuzziness' in methodological attempts to track the object. The confusion arises primarily in how notion is used in contemporary version of activity theory -For leontieve. The object of any activity is that thing that arrives the activity what he refers to as the "motive" ofthe activity (1981).In a well argued article uncovering the conceptual in understandings of the notion of object.

**Teacher -Students Interactions in the Mathematics Class Room :- Jens Holger Lorenz(1980)**

Models of teacher-student interaction have most frequently spring from general question of educational psychology and thus hardly deal with specific features individual subjects in school. There are expectation of performance outcomes, casual attributions to outcomes higher cognitive schemes such as reference norm orientation and their different influences on classroom communication. A tentative model of teacher -students interaction given.

The so called "Pygmalion effect" has been a starting point for number of studies concerning teacher - student interaction (Rosenthal &Jacobson, 1968). In their investigation, the authors told teachers that 20percent of students in an elementary school were "late bloomers" i.e. that they would advance faster in the course of the school year than their classmates indeed, these randomly selected students showed, at post treatment eight months later, significantly greater rates of IQ increase than their peers, obviously, teacher expectations as to the intellectual performance potential of these students had led to an actual increase of performance in the directing expected. What are the prerequisites for this teacher expectation effect to occur and what is the mode of its functioning?

**Students Homework in Mathematics Classroom**

Benjamin Roper & Dr. Wilson (15th oct,2014) states that the idea of mathematics homework produces connotation for teachers, students and parents but its completion can have many benefits both inside & outside of the classroom. Cooper, Robinson, and Patau (2006) generally define homework's "any task assigned by school teachers intended for students to carry out during non-school hours. Although the term includes the word "home" students have freedom to complete the assignment n other locations such as a library or another class. A teacher can very the length, skills, area, and many other factors to customize homework for a class or students it is also his or her job to determine the purpose of an assignment. The most common instructional goal is for students to practice materials learned in class, but it can also given to preview upcoming materials or extend thinking that was established in the classroom. Students may have homework for non instructional reasons, which can include meeting district requirements &punishment (cooperatal,2006). Ten purposes for giving homework are provided by Epstein &van Voorhis (2001). Some of the unique objectives include personal development &peer interactions. Many teachers have a

unique strategy for distributing &grading homework, several of which described later paper.

Homework has been present in American schools for many generations but the public opinion of the concept changes frequently. In the early 1900's educational theories suggested that homework could be an important means for disciplining the children minds (cooper &valentine, 2001).

**Students' Behaviors with Teacher and Peers**

Cindy Higgins &Barbara J.C. Glaeser, positive behavior support is a broad term that describes a comprehensive research based, proactive approach to behavioral support aimed at producing comprehensive change for students with challenging behavior. This article described what PBS strategies teachers can implement in their classroom. Finally the article offers relevant resources for those interested in implementing PBS.

Teacher report that student behaviors is their number one difficulty (coastes,1989, Elam, Rose, 1996). Both general and special education teachers also report that they aren't sufficiently trained to deal with the aggression, defiance -even violence that they witness daily and see increasing by in children at younger Ages (the Discipline problem, 1996).

The time required to implement a strategy is among the leading criteria teachers use to choose behavioral interventions. Teachers favor trial & error interventions & immediately effective strategies or isolated behavioral strategies suggested by fellow teacher rather than functional analysis & other data based intervention strategies because they find these too time -consuming.

The student's behavior with peer and teachers are given as follows:

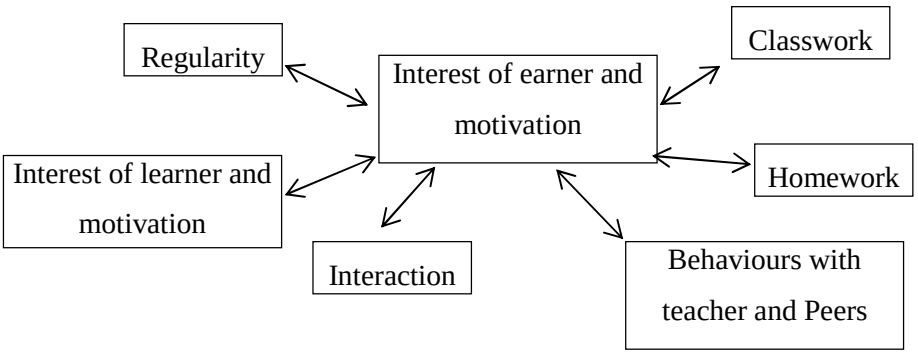
- Positive behavioral different revolutionary because it s based on determining not only what, where and how challenging behaviors occur.

- Positive behavioral to learn socially appropriate ways to meet their needs & become independent.
- Positive behavioral motivate students to do their home work clars work &taking regular classes.
- Positive behavioral support those who works & solve their problems really in peaceful environment.

**Conceptual Framework**

There are four theories above described about factors that affect in learning mathematics achievements of children, family support, environment of school and home. Caring the children of guardians and checking homework. Activities also shown in classroom, academic involvement of students and supporting factors described by Bloom (1980) were categorized in family background and support. The occupational aspiration was categorized as the other factor affecting the mathematics achievement. Also reinforcement of teacher and parents, behavior of peers and teachers and social discrimination in terms of school environment were identified based on above described literature reviewed.

The researcher tries to examine the causes of difficulties in learning mathematics of Yadav students. The factors which affects the learning mathematics of Yadav Students.




On the basis of literatures of Panta, Adhikari, Marsella, Triandis, Oliver and Siegler this conceptual framework is constructed.

From the education family and statue home environment usually children are aware, conscious and better achiever than non-education family 8 non-suitable home environment. House is the first school and children's parent's are first teacher for transfer of knowledge to the child gained them. There is not only the role of school and teacher in learning process. But, also parent's education educational awareness, motivation, gender equality and equitable opportunity were ways od handling & guiding to suitable home environment.

Such as physical facilities, teacher & peer's behaviors, educational environment and expansive education were most influencing factors for better mathematics achievement. The discriminatory behavior and facilities these creating psychological effects to child and they actually could not learn freely and performance and achievement remained low. The teachers behavior towards the students affects in every individuals learning. In class room practice. The relation should be co-operative and supportive for mathematical learning.

Teaching learning process plays the vital role in mathematics learning. The mathematical problem can be solved by different process method and activities. The ways the teacher teachers directly effects on the mathematical learning of students. The teaching learning process can't be effective in mathematics of there is not chose appropriate method. So, there should be student centered approach and similarly use of instructional materials as equal opportunity of there. The teacher is a facilitator, so it has should be use of innovative technique and teach to mathematics by connecting with real life to human being for the motivators Yadav students were poor in mathematics and they are discriminated and also hesitated. There is necessity of special attention. Therefore teaching learning process is one of the factor that influencing mathematics achievement.

# Chapter III

## METHODS AND PROCEDURES

In the research there is systematic observation & description of characteristics of properties of objectives or events for purpose of discovering relationships between various. The ultimate purpose is to develop generalization that maybe used to explain phenomena and to predict future occurrences. To conduct research, we must establish principles so that the observation and description have commonly understood meaning. Research methodology has many dimensions and research methods do constitute a part of research methodology.

This chapter includes the procedures adopted in the study, which was carried out to achieve the objectives of the study and to get answer of the research questions. It describes the design of the study, description of the study area, samples of the study, tools used to collect the information, Reliabilities & validity of tools, Method of data analysis is procedure. This chapter basically deals with the methods implied by the researcher on research topic. Methods are guide lines, the researcher to research in a scientific & systematic way.

### Research Design of the Study

This is qualitative research was based on case study of yadav students. To conduct a Research in a scientific way it requires adopting certain samples, designs &procedure. The Research design helps the Researcher for appropriate planning & provides the guideline for collecting the data and analyzing & Interpreting the data. The research design related with nature of the research and objectives. The main objectives of study to find out & analyze "activities of yadav students in Mathematics classroom" on the basis of the case study appropriate for this study of qualitative design. This is case study. Studying obstacle faced in mathematics of Yadav students or capabilities in Mathematics achievement.

**Description of the Study Area**

Sarlahi district significant distinct in socio-cultural geographical and religious matter among the other district of Nepal. It has historical distinct sign in the history Nepal. In Ancient time, It was called Mithila Pradesh.

There are 7,29,000people in Sarlahi district out of them 2,30,918 are Yadav (census 2011). It is nice fertile area of Terai region of Nepal & touches the border of India. The researcher has selected Yadav community students of Khoriya V.D.C in Sarlahi district at Ram Janaki Lower Secondary School & Shree Deodhari Secondary School, Sunderpur V.D.C. Researcher has selected this targeted Area because fulfillment the objective & mostly Yadav community settled in this Area.

**Selection of Respondents**

This study experimental study & carryout in two schools names Shree Ram Janaki Lower Secondary School, Khoriya-2 & Shree Deodhari Secondary School Sundepur-9 Sarlahi. These two school were select purposively by the researcher because expectation & co- ordination needed from schools. One girls and two boys from each school were selected proposing as respondents. The mathematics, ahead teacher and six parents were also selected as respondents together require information.

**Tools of Data Collection**

Tools are important means for collecting data. There are different types of tools for collecting. Since the research is qualitative research so in this study. The following tools formed.

***In depth Interview schedule***

Interview is two way Interaction between two or more persons. Interview schedule are structured. Unstructured, Mixed etc. It can be used as the moment arrives. The interview schedule is of long term, short term as well. The researcher apply Interview schedule till to motto is fulfilled. The Interview schedule had provide the

sufficient time for the respondents & the Interviewers notice the other activities other than the words of the respondents. This the method that produce the in depth data. In this research, The researcher conduct the interview with four respondents &the math teacher of the both schools. The researcher not only do the two way Interaction. The researcher who noticed their behaviors. The researcher prepared the guide lines as well, which used to notice their opinion as well.

The data required is not sufficient from the four respondents from each school such that the researcher also interview with the mathematics teacher & the head teacher as well. The data obtained from the view of the students, mathematics teacher & the head teacher analyzed & prepared the findings &the interview guideline prepared according to the conceptual framework & used according to the situation. Some of extra questions also raise during me conversation.

The researcher was selected the data in the related field to there parents of the students. Also taking interview with teachers & students. About learning features of yadav students. Also knowing the all the activities of yadav students from school to home. What are the cause behind low achievement of yadav community students.

**Class Observation Form**

There are many techniques to collect the data first data or the research. Since this research is a case study, thus the class observation form was prepared for the first hand data collection. The class was observed for one month on both of the schools. The result on both of the school was similar were or less. The students were found talking, nor interacting, looking outside, quarreling etc. all the teacher of the mathematics class was found trying to handle the students but because of the high presentation of the students in the class. It was seen impossible. The teaching method obtained by the teacher was lecture and the teacher was also not interested to apply child friendly use method such as problem solving discussion method etc. on both of the school.

In this study, the data from observation was consisted of detailed descriptions of activities, behaviour and actions of yadav students. Also the data from direct observation was consisted details descriptions of teachers and peers behaviour and activities towards yadav students. To get required information the researcher observed schools overall their work at school classroom, playing with peers, interacting with teachers etc. The notes were prepared related with the conceptual framework and the prepared guide lines.

**Data Collection Procedure**

The data collection is most important & integral part of research. The procedure that followed during the research heavily relies on the completion of the research. The method of the data collection whole task that takes during the study. In this procedure the data collect, information collect & observation made. The data collection is the method includes how it be was done, which helps the research in analyzing & interpretation of data. The research has adopted the case study such that the research have been done with the help of observation, Interview schedule & Focused group discussion. Personal experiences, personal cases feeling were pointed out in the study. The class observation filled with the observation class. The interview was done with the student on the study. The mathematics teacher & head teacher of both schools interview & the focused group discussion conduct among the parents of the students under the study.

The researcher was visited the officials of the school under the study which Ram Janaki Lower Secondary Khoriya-2& Shree Deodhari Secondary School Sunderpur-9. First of all the researcher collect the data from school document which includes the categorizing of the key respondents under the study, their academic qualification, position etc.

The four respondents Yadav Community was selected from the both schools. The Data was collected with the students with the observation of the class followed by the interview with them. The mathematics teacher, head teacher & parents also interview. The conducted among the parents of the key respondents relating conceptual frame work prepared.

**Standardization of Tools**

For the validation of tools, researcher constructed interview guidelines for students, teachers and parents on the basis of conceptual framework which was constructed on the basis of different theories and literature. Also observation from were constructed on the basis of literatures as well as Yadav students typical activities in the classroom. Also these tools were finalized with discussion of my supervisor.

**Methods of Data Analysis & Interpretation**

The data of this study was descriptive in nature. The researcher read the data to obtain the general sense. The class observation was made from the data related to activities of Yadav students in mathematics classroom & behaviors of peers & teachers. The pattern of interview was structured in nature the researcher had the selected questions pattern to interview the students, guardians and teachers also. On the basis of interview, the researcher analyzed the collected data in accordance with the response from the representatives.

Similarly, the researcher also observed the classroom activities of yadav students regularly at least a month to find achievement level of yadav students whether they gaind high or low competence. The researcher also observed the activities,participation, classroom activeness, homework and regularity of those students on which the researcher was conducted.

Finally the researches made his Interpretation. The data Interpreted on the basis

of conceptual framework which develop in the critically analyze sustaining with theory has implemented to analyze the collected data to provide proper, meaning& conclusion.

## Chapter IV

## ANALYSIS AND ENTER PRETATION OF DATA

This is a case study, thus the nature of the research is qualitative, the focus of study was to "Exploring Yadav Student's Activities in Mathematics Class Room. This chapter deals with the analysis and interpretation of the collected information derived from the case study. Interview and the class room observation were the tools of the data collection in this study. The focus was on the student's behavior, activities and interaction with the teachers and peers were observed in this research. The class observation was done to the students on the research.

The descriptive and analytic method used in this research because it was a qualitative study. Researcher had attempted to fulfill the objective of the study by describing and analyzing the information as acquired in the research process. The collected information were analyzed and described under the following headings.

- Introduction of sample school
- Introduction of case students
- Teacher students interaction
- Classwork of yadav students
- Behaviors with teachers and peers
- Regularity of students
- Interest and motivation
- Home work of yadav students

**Introduction to the sample school**

Shree deodhari higher secondary school is located at sunderpur V.D.C in sarlahi district. Itwas established in 2019 B.S in the form of primary school at sunderpur -9. After 5 year in 2024 B.S it was upgraded to class eight. And in 2027 it was upgraded to class 10. Now the school has been upgraded to the higher secondary

level. The school has the property of 25 bighas land. The school when started was made up of mud and the roof. the school made at that time was not child friendly so the school was developed with the help of villagers, school staffs and the government officials between 2033 B.S up to 2036 B.S. now the school has four buildings with somehow appropriate for the children, the total number of students in this school was 486 of whom 302 were the male students and 184 are the female students of the total in 2072 B.S. the total number of yadav students in this schools were 107 which is 22% of total were other are of Brahmins, kyastha, shah, muslim, patal etc. most of the students come from uneducated and poor family of whom the yaday are more, such that the parents of the yadav student not support there children. The attendance of the yadav parents in the school management committee (SMC) was zero and in the teacher-parents committee (TPC) was zero as well.

The other school in this study was Shree Ramjanki loar secondary school khoriya -02, sarlahi which was established in 2042 B.S with two buildings made up of bricks and cements. First me school was started with one and two with the students 10 and 25 respectively. The number of staffs/teachers was only two at that time of opening this school. Now the school is running up to grade 8 with the total number of student 305 whom 105 are yadav community students. Now the school contains 3 bighas land the school has 10 teachers of whom only one teacher is of yadav community.

Yadav are also one of the backward community of Nepal the social economic, educational achievement are lower man the other cast head teacher said that "yadav parents do not send there children to school because of low income and low education. Most of the parents are uneducated so they are involved in farming.

**Introduction of case students**

The six case students were taken in this study as respondents. There brief information is given below.

**Respondents A**

She was 15 years old girl of basic level of grade VIII she was born in sukhchaina-2, sarlahi district. Nowadays in the salven place. It 5 minutes to each in school from her home. There ten member in her family and they belived in hindu religion. In comparison with other Yadav families, her family was large she was as disciplined by in the school her interested subject was English. She had 31th position in previous but latter her position was $35^{th}$ in the class. Her parents were uneducated. It was very hard to maintain this family economically. Her father was work in field & her mother worked in other house as house hold. Her three brothers & three sister reading in the cause school respectively in class two, three, four and six.

She reaches school in time to obtain the school uniform while observing the mathematics class, the researcher saw her with homework sometimes but according to mathematics teacher "only sometimes she comes with homework" after returning home from the school she went grazing animals such as goat, veda, etc. and she return at evening. She had not enough time to study. She is normal students in the class and does some interacting each other "Shivangi said that she handless interest in mathematics". She usually sits last bench with weak students.

From the above study the researcher fund she had not in mathematics. So, need of motivation awarders from her family to school and teaching learning activities should be conducted as technique.

**Respondents B**

He was 16 years old students who was studying in basic level of grade VIII. He levels at suderpur VDC, Sarlahi. He had 5 members in his family. They were father, mother with two sister when his father goes to work in the field he was to take are his two sister and also was rearing the animals at his house. So he had not enough time to practice mathematics, he was very week I his study his father simple was a good as

louse hold. At high he had the problem of light of study. There was frequent problem of loadsheding. He is other presented in the classroom. His parents could not give attention in hi study because of their occupation. Poverty, lack of education awareness and many other problems.

When (he researcher observed his school activities, he found that he was interested in subject like social but bot science & mathematics. He did not get good family environment to study. It is the man problem of that they are economically weak. They had not any other sources of income. Also his rather said, we are economically poor because of there is any other sources of income we can't give full time for his study. And his mother said we have a problem of good & clothes, problem of economic weak.

Also be study refers that most of Yadav parents are poor educationally & economically which are the main factors to their low achievement in mathematics.

**Respondents C**

He was 13 years old boy of basic level goods VIII she had been studying in the Shree Ramjanki lower secondary school khoriya-02, sarlahi since her house near from school his family follow by hindu religion and spoke Maithili language. There were four in his family his class roll no 20 and his interested subject was nepali.

His father & mother are farmers. They have small land they could not serve their life depending small land so they goes works some time other field to work.

For survival of their life. He did not want to miss the class but sometimes be missed class because of be had work to some other field & house be didn't do regular home work because he accused of their parents of not providing sufficient books, copies, bags and other mathematical materials. The parents were accused not able to give home environment and tuition classes etc. for their children.

**Respondents D**

She was 15 years old girl students. She lived khoriya-04, sarlahi. There are twelve members in her family, where father, mother, four brother, three sister grand father and grand mother. Her father works as labour works in chiura mill some time works in making baildings similarly, her mother worked in the field and often busy house hold worker.

She helped her mother house hold activities. Her position in class 16$^{th}$ among so students. Her poor performance in mathematics. The researcher found the lack proper guidance by math teacher in encouraging the students to so she were unable to grasp the formula& basic concept of the mathematics chapter because of irritating teaching style of the mathematics teacher. She said that the math's teacher didn't explain the essential math formulae giving example. The teacher didn't solve all problem of any chapter in math's classroom. As result, they failed to solve math's problems herself.

**Respondents E**

He was 17 years old boys students. He lived sundar-02, sarlahi. There are eight members in his family his work in india as labour in field. Also rearing animals at there. Her has two brother one sister, grand father & grand mother.

School is a miniature of society. Different caste and racial students came to school for knowledge. Different misbehavior and discrimination are been in our schools from the peers & teachers when researcher observed and interviewed the researcher found that many of peers were not helpful in the case of helping Yadav students of class 8 many of the friends ignored when they for the help for solving problems in mathematics. It looked like the students from other life group wanted to maintain the gap between them and the Yadav students.

The researcher found that the students of other elite groups saying the yadav's remains children even at the age of 90 years and they have thick mind "the researcher

found the teacher saying to Yadav students, buffaw grazers," you can't understand this much.

**Respondent F**

Respondents F was 16 years old. She lived khoriya VDC-5, her family follows hindu religion. She was very curious & intelligent. She did not forget to do has homework as she was good students. She attended all the classes. She always participated in extra activities also. She did not to do the work as other did in the other community.

Her father was educated and was a political activist of the village level. Her father generally becomes busy in the work of his political party so he did not cable to give enough time to his children at home. But her father was quite familiar to the importance of education. He generally visits to school and consults with the teachers about his daughter is study. He agreed that she was talent children in the study but. She was weak in mathematics. According to her the reason was in adequate parental help. Although she had good environment for learning but she felt some difficulty in mathematics she said.

"Addition, subtraction and multiplication of algebraic expression are difficult for me. Some problems involving algebraic multiplication. I feel difficulty. The unitary method, geometry, trigonometry in optional mathematics are also difficulty to understand.

**Teacher- Student Interaction**

Interaction is the social activity and may be within persons and between persons. Within persons interaction refers to the mental activities with his/ her mind and soul. It depends upon the personal intellectual capacity. Inter - individual interaction refers to the sharing cooperation and adjustment between two or more persons. According to Ogbu (2000, 2001) learning takes place through environment,

culture between home and school.

> *"All the school teachers at the school are from Brahmin and sah. They do not response us property. If mathematics teacher would from Yadav community we could easily interact -with him". [Student's view]*
>
> *"Yadav students are poor in language pattern. They always speak in Maithili language. They always used to sit together in group. They have poor interaction with other students also. I cannot understand their language. They use mixed language in classroom. Sometime I ask question in Nepali but they cannot response properly. So I do not like to ask questions to them". [Mathematics teacher]*

The above views of student and teacher indicate that there was language discontinuity in the mathematics classroom. Due to the mixed language used by students in the mathematics classroom. Due to the mixed language used by students in the classroom, teacher did not understand the mathematics problem praised by students efficiently. There were difficulties to interact with mathematics teacher and other students of mathematics classroom for Yadav students which were due to language. The above views also indicate that the mathematics teacher had been neglecting them was not proper interaction between Yadav students and other students as well as teacher in the actual classroom practices.

Discontinuity theory of marsella, triandi's (1979, 1994) deals with the level of analysis is appropriate individual cultures such as the problems of children's learning caused by the differences and discontinuity between the culture of home and school. The children whose environment getting match with school environment brings the good result, and the children whose environment do not get matched with school environment they don't pay attention on the study. And their results are low so the environment is also most effective factors in learning.

**Classwork**

As we know that classwork is the heart of all the classroom activities. It is needed for quick feedback so, classwork activities are given highly priority while going through the collected data, the researcher found that the participation of the yadav student in mathematics classroom was less than others. They didn't even pay the due attention in the classroom. Yadav students were week by nature in mathematics, they needed special treatment and techniques that the teacher went through the general techniques and procedures, as a result they (Yadav students) failed to gain the core concept of current teaching topics. There were different weakness by the side of teacher such as using of teaching materials, teachings, methodology and psychology of the yadav students. The yadav students was done homework less (from appendix f)

Because they did not solve the problem easily when the researcher find from appendix -F. There were doing of high no of classwork was I and low was 4.

When the researcher asked question "Why don't you do your classwork? The response was following:

> *"We don't understand easily understand the mathematics" '[Student's view]*
>
> *"In our house we don't practice more mathematics thee was not sufficient time to practice mathematics" [Student's view]*

From above the researcher was seen there was no proper guidance of yadav about mathematics.

**Peers and Teachers Behaviour with Yadav Students**

School is a miniature of the society. Different caste and racial students come to school for knowledge. But gaining knowledge for the minorities and ethnics is not easy in our school. Different misbehavior and discrimination are seen in our school from the peers and the teachers. The ethnic groups such as yadav are likely to be dominated by

the elite groups. The achievements is more of the elite groups with respect to the ethnic and dominated groups. The children from various social status and ethnic/racial groups have different degrees of access to those forms of cultural capital that supports academic success, with in the social groups, parents provide experience that result in children developing similar tastes, preferences and academic motivation. Eventually these attributes are related to social status and ethnic/racial group's differences in academic outcomes (Bourdieu, 1998). We can imagine that if these ethnic groups are misbehaved and discriminated, then what would be the academic achievement.

When the researchers observed and interviewed, the researcher found the many of the peers were not helpful. Many of the friends ignore when they asked for the help for solving problems in mathematics. It looked like they wanted to maintain the gap between the elite and the ethnic groups. The researcher found that the children have complained that they were misbehaved by their friends and the colleagues did not permit to sit them in the front row, front bench with their parents. The researcher also found that one student saying "Garni ali tauko tala gar" (Garni, put your head down) when he was blocked the board. One of the student's saying shows the behaviour of her classmate, "when I asked for help inthe mathematics problem with my friend no one help me. They say what you would give me for the help. I cannot pay anything for that so they did not help me". When the researcher observed the class, the researcher found that the teacher saying "Bhedo yeti pani Boojhainas" (you sheep, you can't understand this much. The above observations show the behaviours of peers and teachers. There was discriminatory behaviour directly or indirectly by teachers and peers. There was not good relation between yadav and non-yadavs. The students were arranged according to their similar class. The researcher found that yadav students did not use to interact and discuss with the upper caste peers.

*"Some of our friends misbehave with us; they did not allow us to*

*participate in the extra-curricular activities. They select their team with upper caste students so we did not take part in extracurricular activities. The teacher's did not pay attention on the blaming and dominating attitude of the peer's with us". [Student's view]*

*"We don't know such types of misbehaves and discrimination in our school. We saw all the friends reading, playing and walking friendly." [Teacher's view]*

The above views and the observations showed that there was directly or indirectly misbehavior with the yadav child by the teacher and their peers. When the researcher observed, the researcher found that the most of the interaction done by the teachers was made with upper caste students or the Tharu students. When the researcher observed the extra-curricular activities held on the school, the researcher found that the cases were not involved in the math race, hundred meter race etc. though they were of yadav family background which could they have won easily. The interaction between teachers and students, students with students refers the relation in the classroom. Students always become co-operative and teacher became the facilitators in the classroom practice. But it was not seen; yadav children have great discontinuity in interpersonal relation between yadav and non-yadav students. The social inequalities are reinforced, reproduced and legitimated by school (Marsela and Triads, 1990).

*"There are many difficulties in learning mathematics to me. I feel difficulties in Algebra mostly. No one in the class help me in solving problems. Due to our poor condition my father goes on work and no one is other than father to help me in solving problems in mathematics. I cannot give more time in reading mathematics because I had to help my parents in household works". [Student's view]*

> *"I want to read mathematics but i feel complexity in word problem of algebra. I cannot make the word problems in the equation. I asked my friends but they do not help me" [Student's view]*

By the above observation and interview, the researcher concluded that the yadav students did not have equal behaviour and friendly relation by teachers and peers in school unit now. In the classroom practice, the relation should be co-operative and supportive for mathematics learning. The researcher found that no help to the child was given from the peers and the teachers. Some of the students under this study were intended to get help in their problem solving but they were not able to get support. The behaviours made by the peers and the teachers were negatively affected in their academic success. The case under the study were forced to slow down their mathematics reading and they were forced to not talking part in the extra-curricular activities which was one of the reasons to be failure in the academic success. Unequal behaviours were helping for low performance, less school attending, negative thinking about school and failure for yadav students.

**Regularity**

It refers to the daily involvement of the students related with the teaching and learning. Going through the collected data, the researcher found that the yadav students were less regular rather team the students of other cost. After going through the further investigation, the researcher came to know that yadav students had to do household work, grazing the cattle, caring the youngers, earning the money as a bread winner and so on. They were unable to invest *the* time in classroom for better achievement. They were also irregular because of the behaviors, methods, techniques and strategies applied by the subject teachers. They were hated due to different socio-economic factor too.

When the researcher was asked "why yadav students are unsuccessful in

mathematics test"? The responses of the question are as follows:

> *"Yadav students could not give enough time to practice at home. They are also irregular in class. So, that makes more difficult to pass I mathematics. They have needed extra classes to well in mathematics achievement, but they couldn't afford for tuition and coaching". [Teacher's view]*

According to the mathematics teacher because of the poverty they could not interest money for tuition and coaching, lack of interest, lack of practice time in mathematics. Following responses were obtained when the teacher was asked.

> *"What is the attitude towards Yadav students?"*
>
> *'I do not discriminate the, I behave equally to all students but I fell bore to their learning behavior". [Teacher views]*

From this response, the teacher do not discriminate the, generally he behave equally in the class. But there is no special attention to them. They feel bore to their learning behavior. So, they have need get to special attention. If that could not give, they would go back and back.

"How is participation of Yadav students in mathematics activities?" the response was as follows:

> *"Only few of them are regular in the class. The regular students sometimes do homework and class work. But irregular students never do homework and could not do class work". [Teacher view]*

According to shahi, (2010), his findings shows that the participation of dalit students in less then non-yadav students. He also found that irregularity is one of the cause of yadav students fail in mathematics subject.

From the above response, yadav students are irregular so, they feel each problem hard as they are not interested in mathematics. Their participation was low in

mathematics activities.

The response of the question "How is difference between learning behavior of Yadav and other students "were as following:

> *"Most of the yadav students do not participate in class work and homework they are not interested in mathematics. Because of lack of time they could not give sufficient time for participate. So, they are not as intelligent as other students". [Teacher view]*

It tells conclude the, yadav students are they weak in mathematics. They took more time to understand then the other students. They are less interested and leam slow than other students.

According to the cultural difference and discontinuity theory (Ogbu 2000), deals with the problems in children's learning caused by differences and discontinuity between the culture of hove and school. He says that those children whose home culture is much similar to the culture of educational system they can easily with system that may result better learning achievement. Similarly, the children with unmatched and dissimilar home cultures wit school cultures and they do not have enough attention in their learing and do not get much recognition of their cultures and they have to work achieving learning outcomes compared to the children with good matched.

Form above the teachers' view and given theory that concluded as fallowing Yadav students were more interested in extra-curricular than mathematics learning and study. Yadav students could not give much time for study in the home because that cause of homely workload and poverty. There was not any discrimination against yadav and non yadav students by the mathematics teacher but they did not usually participate in mathematics activities. In the school, there teacher cannot give special attention to yadav students because there is cultural difference and discontinuity between hove and school.

**Interest and motivation**

Motivation is a theoretical construct used to explain to behavior. It represents the reasons for people's action, desires and needs. Motivation can also be defined as one's direction to behavior, or what causes a person to want to repeat a behavior and vice versa.

A motive is an internal process that makes a person move towards a goal. Motivation, like intelligence, can't be directly observed instead, motivation can only be interested motivation can only interest by nothing a person's behavior.

A interest and hobby is an activity, interest, enthusiasm, or pastime that is under taken for pleasure or relaxation, typically done during one's own time. This includes only recognized hobbies that have been the subject of published discussion or that have organized membership association.

The responses to the question," How is your interest in mathematics?" were as follows:

> *"It is not difficult to study so, do not like mathematics". [Student's view]*
>
> *"Mathematics is interesting but I could not give time at home so it is different than others students. [Student's view]*
>
> *"It is not difficult to learn but learn but -we 'have not materials" [Student's view]*

According to John carroll (1963, 1989) many difficulties in mathematics are due to inability to read and understand the statement of the problems. From the above responses and given theory, it could be said that by the different reasons most of them feel mathematics difficult. They are not interested in mathematics. "I use student centered method as well as explain the problems step by step on the blackboard while teaching mathematics. And if necessary I use teaching materials." (Math teacher's view).From this view, the teacher used problem solving method but explaining step by

step. The teacher also used teaching materials as necessary for the lesson. According to ogbu, (2010) argues that the dominant group get school system in accordance to their own convenience and benefits, e.g. their norms, value and aspiration in the curriculum and learning approves that suit to them. But dominated groups gets on unfamiliar and unrealistic curriculum and their cultural resources do not match with over all education system. So, it is difficulty in learning and cause of failure.By the above response and given there, it concluded that teaching methods were used as necessary in the classroom. So, that classroom was satisfactory.

> *"What in the interested field of the yadav students. The response was as follow".*
>
> *"They are interrelated in singing, dancing working in the field, playing games". [Teacher's view]*
>
> *"What do you think about the motivation to yadav student?" the response of the question were follows".*
>
> *"Showing the different utility in daily life. I encourage them to learn mathematics but I could not teach separately for yadav students" [Teacher's view]*
>
> *"How does the confidence and qualification in subject matter of teacher affect the achieving of the children" following responses were obtained.*
>
> *"Unqualified teacher could not give the sufficient knowledge in subject matter" [Teacher's view]*

From the above view, unqualified teacher could not give sufficient knowledge use by subject matter and their presentation could not be effective. According to Bruner, (1996) states that a theory of instruction should address four major aspects (a) predisposition towards learning, (b) the ways in which a body of knowledge can be structured so that it can be mostly readily grasped by the learner, (c) the most effective

sequences in which to present materials and (d) the nature and pacing of rewards and punishment. Good methods for structuring knowledge should result in simplifying, generating new proposition and increasing the manipulation of information. From the above responses and according to theory, it concluded that sufficient knowledge of subject matter play vital role in student's performance.

**Homework**

Benjamin Roper & Dr. Wilson (15 oct,2014) states that the idea of mathematics homework produces connotation for teachers, students and parents but its completion can have many benefits both inside outside *of the* classroom. Cooper, Robinson, and Patau (2006) generally define homework's "any task assigned by school teachers intended for students to carry out during non-school hours. Although the term includes the word "home" students have freedom to complete the assignment n other locations such as a library or another class. A teacher can very the length, skills, area, and many other factors to customize homework for a class or students it is also his or her job to determine the purpose of an assignment. The most common instructional goal is for students to practice materials learned in class, but it can also given to preview upcoming materials or extend thinking that was established in me classroom. Students may have homework for non instructional reasons, which can include meeting district requirements &punishment (cooperatal,2006). Ten purposes for giving homework are provided by Epstein &van Voorhis (2001). Some of the unique objectives include personal development &peer interactions. Many teachers have a unique strategy for distributing &grading homework, several of which described later paper.

Most of yadav community students didn't do his/her homework. Because of lack mathematical material, copy pencil, geometrical box. Also parents are illiterate. They don't know importance of education. They are economically poor so they couldn't afford to much money for tuition classes. Students have to with their parents in the

field. They have rear the domestic animals as well as.

> *"When the researcher asked with the students "why do not do your homework"? the responses are following*
>
> *"In our house we have no more time to practice mathematics as well as doing*
>
> *homework because of to help our parents in the field" [Student's view]*
>
> *"We have to take care our elder brother and sister and also rearing domestic animals". [Student's view]*
>
> *"Yadav students are mostly poor performance in mathematics lack of low practice of mathematics". [Teacher's view]*
>
> *"We are poor. We can't afford the children copy, pencil and mathematics materials". [Parent's view]*

From the above yadav students are irregular so, they feel each problem hard as they no interested in mathematics. Their participation was low in mathematics activities or homework. Because their parents didn't help them to do homework their home. From appendix - F shows that high number of doing homework is 9. And also the appendix F shows that the low number of doing homework was 5 times. So, it is needed for yadav students taking extra classes to elaborate their level or needed special classes to exceeds their level.

# Chapter V

## SUMMARY, FINDINGS, CONCLUSIONS AND RECMMENDATION

This chapter is basically concentrated in deriving some findings from the discussion of chapter IV. Besides findings and conclusion, it has some education implications which are also discussed on the basis of overall study of 'Exploring Yadav Students Involvement In Mathematics Classroom'.

### Summary

This is a case study about Yadav students activities in mathematics classroom. Yadav students show poor performance especially in mathematics subject. So he researcher intended to study the difficulties in learning mathematics of yadav students. The main objectives of the study were:

- To analyze activities of Yadav students in mathematics classroom.
- To explore Yadav students' ways of interaction in mathematics classroom.

The research was conducted in two school, namely Shree Ram Janaki Lower Secondary School, Khoriya-2 & Shree Deodhari Secondary School, Sundarpur -9, Sarlahi

The design of this research was explanatory case study in which meanings were derived from the total study:; logic and reasoning of why and how it was like that linking with theories. The case study of those sampled yadav students were carried out through uncontrolled observation and interview where needed.

For the fulfillment of the study, the researcher did the interview and observed the class activity of all. Yadav students of grade So the two schools : Shree Ram Janaki Lower Secondary School, Khoriya -2 & Shree Deodhari Secondary School, Sundarpur -9, Sarlahi for one month for the purpose of obtaining children's behaviour, activities and their actual activities in mathematics classroom. The researcher also interviewed to the mathematics teacher and head teacher in order to get necessary data. The data were

analyzed and interpreted with the basis of the conceptual framework developed in the literature review.

**Findings**

The students under the study were found with difficulties in learning mathematics and were seen in their achievement. Most of the students in this study were forced to work instead of learning. They were found engaged in their household works, supporting in their family business etc. There was not favorable environment for learning of mathematics subject for the Yadav students at the home and in the school as well. The students under the study were not treated well in their school from their peers and teachers as well which affected their learning. The researcher found that then-family educational background and support, the behavoir of peers and teachers, occupational aspirations were the factors to influence the achievement of Yadav students in mathematics subject, after analyzing the data obtained, the researcher found the following results as the finding of the study.

- The participation of Yadav students were less than other students in discussion, homework, class work so on other activities.
- Yadav students were seemed irregular in the school due to household work and to work as a bread winner for their family.
- The yadav students do not get opportunity to learn mathematics at house. To poverty and less practicing behavior.
- The parents do not think for good and friendly study environment. They were not able to help their children in the study because of their illiteracy though they wanted to help. Thus, it was found that low literacy of the Yadav students families was one of the important causes to affect their achievement in mathematics subject.
- The positive behaviors of teachers and peers influence positively and help for

high achievement and negatively influences with the negative behaviors. The students under the study were not treated well from their peers and teacher as well which supports to put negative psychological effects which was one of the cause of low achievement and the dropouts of the students among the Yadav students.

- The direct or indirect discriminative behavour was seen in the school from die peers and teachers which may be one of the major causes of low achievement. The discriminative behavaiour caused the absence of the students under the study which lessen to complete with non- Yadav students and was forced to sideline from the race of positions.
- The students under the study were found to be less participating in the discussion, they were found mostly without their homework, less interacting with their peers and mostly they were neglected in group discussion which was also the cause of low achievement in mathematics.
- The Yadav students were dominated by their peers and the teachers by saying different surnames in their teaching activities.
- There was sufficiency of the mathematical tools in both schools but the participation of the Yadav students was less in comparison to non- Yadav students. They were not asked to participate in the extra -curricular activities as well.
- There was no any program for the Yadav students to bring them in the main stream of learning mathematics in both the schools. The students and the respective parents were found to be unknown about the free ships, scholarships provided by the schools, the government and the school was not keen in providing the information about it.
- There was lack of interpersonal relation among the Yadav students,

mathematics teacher and other students in class.

**Conclusions**

The study was intended to find out Yadav Students ' activities in mathematical classroom which was conducted and found that their participation in mathematics classroom was not satisfactory and their achievement or performance in mathematics subject was finally affected by their family background and support, occupational aspirations, behaviour of teacher and the peers, and the discriminatory behaviour of the non- Yadav students. The researcher found a that the mathematical achievement was influenced by the low participation of the students in the teaching learning activities, the low support of the peers and teachers. The psychological effect was made due to the disrespect of their caste and community. The family educational background and the occupation are the other causes for their poor achievement in mathematics subject.

The researcher has come to the conclusion that me school environment only is not sufficient, so the home environment should also be better. For the good mathematics achievement, the home environment should be good, the participation in the school activities should be good, the regularity in the school should be better, the psychologically dominating behavoiurs should be reduced; the family should be economically and educational sound.

**Recommendation**

Since the Yadav students in the two VDC's namely Khoriya and Sundarpur of Sarlahi district are economically poor, they are not able to go to school regularly like other non-Yadav students. The Yadav communities in these two VDCs are back and nothing had been done to bring them into the main stream which causes them to be failure in the school environments well. The community awareness programme should be run among the Yadav's so that they could help their children in the study. The teachers have to create situation that can be bridging between home and school practices According to the finding and conclusion provided by the study, the

recommendations for further study can be presented as :

- This study was done n two VDCs ie Khoriya and Sundarpur of Sarlahi district as a form of case study. For generalization, it can be done i wide scope and large sample.
- This study was done in two schools on same region and context. The academic status is different in every region, so it can be done on the urban and rural areas.
- This research is based on the Yadav students ' involvement in mathematics classroom. The research can be done on ethno-mathematics of Yadav community
- A study can be done on the causes of school dropout problem of Yadav students.

## References


Adhikari, KP (2007) *Learning culture in mathematics classroom in an effective school*. An unpublished master's Thesis. T.U Kirtipur.

Benjamin Roper, Dr. Wilson (octl5th,2014), *Characteristics of effective mathematics homework.*

Cindy Higgins, K. Barbara J.C Glaeser (1998), *positive behavioral support: strategies/or teachers*.

Joshi, B (2008) *Effect of classroom management in mathematics achievement at Secondary Level*. An Unpublished master's Thesis, T.U Kirtipur

Judah Makonye (Dr) (2012), *The obstacles faced try the learners in the learning of quadratic inequalities*.

Joaone Hardman (2005), *A activity theory approach to surfacing the pedagogical object in lower secondary school mathematics classroom*.

John Can-oil (1963,1989) *Model of school learning theory*.

Kathleen Catton (2007), *Monitoring students learning in classroom*.

Pant (2006), *A study of learning difficulties in mathematics* in Kathmandu valley of Nepal.

Paula Maccini& Joseph Gagnon (2001), *Mathematics strategy Instruction* for middle school students with their disabilities.

Ogbu, (2010), *Cultural difference and cultural discontinuity theory*.

Rick Stiggins & Jan Chappuis (2001), *Using students Iinvolved* classroom Assessment to close Achievement Gaps.

Silver and Smith (1996), *Effective mathematics classroom*.

Takbir Ali (June 2011), *Exploring students learning difficulties in secondary mathematics classroom* in Gilgit. Baltistan & teachers' effort to help students over course these difficulties.

Therine van Niekerk (2000), *Success and obstacles in the development of Grafe 6 learners*.

Yadav Ajay (2069bs) A short history of Yadav pant, (2006). *A study of learning difficulties in mathematics* in the Kathmandu Valley of Nepal.

## Appendix - A

## Observation From

Name of School: ..... Date: .....

Class: ..... Year: .....

Total No. of Students: ..... Time: .....

Period: .....

| S.N. | Students Activities | Homework | Class Work |
|---|---|---|---|
| | | | |

Research conducted observation of Yadav student on the basis of following main topics and details.

- Main aspects of interesting in learning
- Friend's behaving
- Teacher's behaviour towards the children.
- Major interesting things in learning mathematics.
- Participation of interesting activities
- Main instrument in learning mathematics.

## Appendix - A

### Interview guidelines with the case students

Name of Student: .....  Date: .....

Class: .....  Gender: .....

Roll No.: .....  Position in Class: .....

Age: .....  Caste: .....

Birth Place: .....

The interview with the Yadav students was taken on the basis of following things:

- Personal History

.....

.....

- Opportunity to the study at home.

.....

.....

- View about the learning environment at home and school.

.....

.....

- Teacher's behavior towards Yadav students.

.....

.....

- Peer groups' behavior towards Yadav students.

.....

.....

- Relationship between teacher, Yadav students and other students.

.....

.....

- Interest subject and area of Yadav students.

.....

.....

- Environment provided to Yadav students by parents and teacher.

.....

.....

- Participation of Yadav students in mathematics class.

.....

.....

## Appendix - B

### Interview guidelines with the parents

Name: .....  Date: .....

Address: Permanent: .....  Temporary: .....

Qualification.: .....  Caste: .....

Occupation: .....  Age:.....

The following interview with the parents was taken on the basis of following main topics:

- Parents' view about Yadav children's education.

.....

.....

- Member of children's education.

.....

.....

- Member of children they have.

.....

.....

- Environment at home for learning.

.....

.....

- View about relation with other caste

.....

.....

- Thought about the education of their children.

.....

.....

- Parent's view about economic help from NGO, INGO and government.

.....

.....

## Appendix - C

### Observation guidelines with the mathematics teacher

School's Name: ..... Date: .....

Teacher's name : ..... Class: .....

Qualification.: ..... Subject: .....

Experiences: ..... Period:.....

The interview with the mathematics teacher was taken on the basis of following main points:

- Mathematics achievement of Yadav students.

.....

.....

- Teaching strategies.

.....

.....

- Problem on teaching of Yadav students.

.....

.....

- Participation in the class.

.....

.....

- Area of difficulties in learning mathematics.

.....

.....

- Motivation and interest.

.....

.....

- Interaction with teachers.

.....

.....

- Behaviour with teacher and peers.

.....

.....

## Check List of Classwork of Yadav Student

| S.N. | Date | Day | Number of Students | Classwork | |
|---|---|---|---|---|---|
| | | | | Done | Not done |
| 1. | 072/11/10 | Monday | 20 | 4 | 16 |
| 2. | 072/11/11 | Tuesday | 19 | 5 | 14 |
| 3. | 072/11/12 | Wednesday | 18 | 10 | 8 |
| 4. | 072/11/13 | Thursday | 13 | 3 | 10 |
| 5. | 072/11/14 | Friday | 15 | 5 | 10 |
| 6. | 072/11/16 | Sunday | 17 | 9 | 8 |
| 7. | 072/11/17 | Monday | 20 | 4 | 16 |
| 8. | 072/11/18 | Tuesday | 19 | 3 | 16 |
| 9. | 072/11/19 | Wednesday | 12 | 7 | 5 |
| 10. | 072/11/20 | Thursday | 19 | 6 | 13 |
| 11. | 072/11/21 | Friday | 17 | 2 | 15 |
| 12. | 072/11/23 | Sunday | 15 | 6 | 9 |
| 13. | 072/11/24 | Monday | 13 | 3 | 10 |
| 14. | 072/11/25 | Tuesday | 18 | 8 | 10 |
| 15. | 072/11/26 | Wednesday | 12 | 2 | 10 |
| 16. | 072/11/27 | Thursday | 13 | 7 | 6 |
| 17. | 072/11/28 | Friday | 10 | 5 | 5 |
| 18. | 072/11/30 | Sunday | 7 | 2 | 5 |
| 19. | 072/12/01 | Monday | 19 | 3 | 16 |
| 20. | 072/12/02 | Tuesday | 17 | 2 | 15 |
| 21. | 072/12/03 | Wednesday | 15 | 6 | 9 |

## Appendix - D

## Regularity

| Date | Total No. of Yadav Students in the Class | No. of Yadav students present in class |
|---|---|---|
| 072/11/10 | 25 | 11 |
| 072/11/11 | 25 | 5 |
| 072/11/12 | 25 | 7 |
| 072/11/13 | 25 | 9 |
| 072/11/14 | 25 | 18 |
| 072/11/16 | 25 | 15 |
| 072/11/17 | 25 | 13 |
| 072/11/18 | 25 | 11 |
| 072/11/19 | 25 | 9 |
| 072/11/20 | 25 | 7 |
| 072/11/21 | 25 | 10 |
| 072/11/23 | 25 | 5 |
| 072/11/24 | 25 | 16 |
| 072/11/25 | 25 | 12 |
| 072/11/26 | 25 | 6 |
| 072/11/27 | 25 | 8 |
| 072/11/28 | 25 | 18 |
| 072/11/30 | 25 | 17 |
| 072/12/01 | 25 | 13 |
| 072/12/02 | 25 | 10 |
| 072/12/03 | 25 | 9 |

## Appendix - E

## Observation form to observe classwork, homework and frequency of doing interaction in the class

| Respondents | Frequency of Homework | Classwork | No. of interaction |
|---|---|---|---|
| A | 5 | 8 | 1 |
| B | 6 | 9 | 3 |
| C | 8 | 3 | 6 |
| D | 2 | 4 | 2 |
| E | 4 | 5 | 4 |
| F | 3 | 7 | 5 |

## Appendix - F

## Class observation of 30 days of Yadav students

| Respondent | Frequency of Homework | Frequency of Classwork | Frequency of doing interaction with teacher |
|---|---|---|---|
| A | 5(15) | 8(20) | 4(20) |
| B | 6(12) | 7(17) | 2(21) |
| C | 8(19) | 4(15) | 3(17) |
| D | 9(13) | 5(17) | 6(18) |
| E | 7(18) | 6(19) | 1(17) |
| F | 5(14) | 9(17) | 5(17) |

## Appendix - D

## Regularity

| Date | Total No. of Yadav Students in the Class | No. of Yadav students present in class |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## Appendix - E

## Observation form to observe classwork, homework and frequency of doing interaction in the class

| Respondents | Frequency of Homework | Classwork | No. of interaction |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## Appendix - F

## Class observation of 30 days of Yadav students

| Respondent | Frequency of Homework | Frequency of Classwork | Frequency of doing interaction with teacher |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |