## Chapter I

#### INTRODUCTION

## **Background of the Study**

Education is an important indicator of social development. Education is a continuous process. It may be formal, informal or non-formal. In formal education teacher has a very important place in improvement of education. Teacher's role in society, in general and in education has been changing with time but the importance of this position is same. The teacher is the pre-requisite of the success of educational program. Teachers have a very vital role in molding and refining the intellectual capacity of children during the phase of studenthood or the formative period in school. The values and the knowledge that the teacher impart and instills to the students determine the future of the child and future of the nation as they are the tools and provider of tools and world for the children to develop into responsible citizens. According to Drukpa (2010), the factors that causes the students achievement level, it was found that the teacher's content level, pedagogy and education level caused the level of student's progression. Similarly it can be said that the future of the nation lies in the hands of children and the future of the children lies in the hands of the teachers.

The most respected profession in the world is teacher. The teacher is the pivot of any educational system. In fact, teachers are the strength of a nation. Teachers develop performance style characteristics to their ways of reflecting to the world, perceptually as well as cognitively. A person is, therefore likely to act in a way that maximizes the use of his aptitudes. Similarly teachers' positive attitude towards teaching and higher aspiration level determines his positive perception of the environment. It is universally recognized that teachers' instructional performance plays a key role in students' learning and academic achievement. There are many factors that influence teachers' job performance such as aptitude, subject mastery, teaching methodology, personal characters, the classroom

environment, general mental ability, personality and relation with students. For development of quality teachers it has to understand the factors associated with it. Job is not only a main source of income but also an important component of life. Work takes away a large part of each worker's day and also contributes to ones social standing. Because of work's central role in many people's life, satisfaction with one's job is an important component in overall human beings. Hence the big question is you satisfied with the job? If the employees are satisfied they would produce superior quality of performance in optimal time. As a teacher, challenging though but it in quite rewarding and satisfying to witness the students progress, thus gives zeal and drive for further challenges in store.

On the opposite side, the profession becomes frustrating and stressful when one has to deal with larger strength, bigger school as a whole which means a greater workload, unmotivated perks, less recognition, top down management, non conducive working environment, less training opportunities, striving hard in meeting the national education goal, school climate and school culture and so on. In the process of teaching and learning teachers the main stakeholders, should be satisfied with his job as it's the basic requirement in the profession in any of the educational setting, the goals and objective can be scaled and conquered only if the teachers are satisfied with their job. According to Sharma & Jyoti 'Teachers are the pillars of the society, who help students to grow to shoulder the responsibility of taking their nation ahead of other. They desire security, recognition, new experience and independence. When these needs are not fulfilled they become tense.'

Occasionally teachers have to encounter with the rude behaviours of the students, come in terms with the society and the people around. Almost all the teachers in Nepal work for ten months with 180 working days per year and spending almost eight hours daily in the school. In the compare of government schools teacher private school teachers have to work hard, they have to give time at home for correcting students' assignments and planning

course outline. Inside the Kathmandu district government schools are less than private schools and as compared to government schools teachers' private school teachers have less salary, facilities and holidays. With such scenario existing, job satisfaction is always questioned which in fact gives way to the question of quality education.

Those teachers placed in the remote district of Nepal, have their own stories to share, they are barred from all the modern amenities and have to face all the harsh realities. They have to work with minimal facilities with all the indigenous locals, tap the talents of the students refine and crude teaching learning process to deliver a quality education to the students. On the other hand, teachers placed in Kathmandu district, the capital city of the country, placed and transferred on various grounds. They have their own stories to tell too although living in a better position compared to the teachers placed in a remote districts.

Although Nepal has really progressed in the field of education compared to the before, yet quality of education is still a much debated topic among the Nepalese. The issues were even raised in the national level by various representatives time and again. Teachers are the main stakeholder in imparting quality education therefore when government raised the salaries for the civil servants in Nepal, teachers' salaries and additional allowances have to be given. But this is only in government schools no all schools. Private schools' teacher's condition is still poor. They do not have the basic salaries according to governments' rule.

But looking at the past situation and present situation of teachers in Nepal who are paid well after the pay revision, it is very important to research the level of job satisfaction of teachers. So that the government or policy makers will be informed about the level of job satisfaction of teachers and frame the policy and explore new avenues in reaching the new heights of the quality education.

The teachers in Kathmandu district, which is capital city share the same work load or may be even more compared to the number of student's enrollment in urban area than in rural

areas. But they are better challenged by the expectations of the educated parents residing in the city and getting sandwiched between the system and the community. So the level of job satisfaction of teacher is still being questioned. It's very important to measure the level of job satisfaction of the teachers living in urban areas like Kathmandu districts.

#### **Statement of the Problem**

This study emerged as a result of researchers own interest and experiences' after serving as a teacher in a private school in Kathmandu district. During the three years of service, researcher experienced various movements of teachers' from different schools. At the same time some teachers left the teaching profession and joined other profession. Additionally, teachers joined the teacher union in an attempt to fight for their rights against their respective employers. Sometimes the teachers' union officials called for a country- wide teachers' strike to force the government to increase salaries and promote them but the strike were not effective. These experiences together motivated the researcher to conduct the current study as an attempt to create awareness about the phenomenon of job satisfaction to policy makers, school administrators, employers and school owners with the hope that it would provide possible solutions to some of the issues mentioned previously for the good of beneficiaries of the education service in Kathmandu with believe that when individuals find satisfaction and meaning of work, the organization profits from effective use of their talent and energy. But when satisfaction and meaning are lacking, individuals withdraw and resist. The study attempts to find out the level of job satisfactions of mathematics teachers from grade V to grade X. And compare job satisfaction of mathematics teachers from grade V to grade X with their age, gender, qualification, workload and income. Specifically, the study intends to answer the following questions.

What is the profile of the mathematics teacher respondents in terms of age, gender, qualification, teaching experience, workload and income?

What is the level of job satisfaction of mathematics teachers teaching from grade V to grade X?

Do there any differences exist in the job satisfaction with regard to age, gender, qualification, workload and income?

# **Objectives of the Study**

The objectives of this study are;

- To identify the level of job satisfactions of mathematics teachers from grade V to grade X.
- To compare job satisfaction of mathematics teachers from grade V to grade X with their age, gender, qualification, workload and income.

# **Research Hypothesis**

Hypothesis means the pre-assumption of the population parameter which may be true or false. The hypothesis testing is a process of testing significance of population parameter on the basis of sample drawn from the population. The research hypothesis for this study is as follows.

The mathematics teachers' job satisfaction is different by their age, gender, qualification, work load and income.

## **Delimitation of the Study**

The study has the following delimitations;

- The study was conducted in mathematics teachers of Kathmandu district.
- The study was conducted among grade V to grade X mathematics teachers.
- Sample was selected by probability sampling method (Stratified random sampling).
- The instruments for the data collection were questionnaire and interview.

This research was based on quantitative design and data was collected by descriptive survey method.

The survey was conducted to a limited sample of 300 teachers.

### **Definition of the Terms**

#### **Mathematics Teacher**

In this research the researcher has used mathematics teacher which mean those person who is teaching mathematics from grade V to grade X inside Kathmandu district.

#### Job Satisfaction

The researcher has used the term job satisfaction to indicate the feeling of the individual towards its work. It can be positive or negative thoughts towards the job the individual does. It can be measured through the contentment the worker under goes. If the worker is content with what he receives at the end of a job, it's a positive feeling which means that the worker is satisfied with it. But the negativity arises when an individual is not content with the work or the end result of the work. In this research, research used five intervals to determine the job satisfaction. They are as follows: 1-1.8 = very unsatisfied, 1.81-2.60 = unsatisfied, 2.61-3.40 = moderate, 3.41-4.20 = satisfied, 4.21-5.00 = very satisfied.

### **Hierarchy of Job Satisfaction**

According to Maslow, there are five levels of needs for job satisfaction. Researcher used the term hierarchy of needs to find the level of job satisfaction of mathematics teacher. The hierarchies of needs are follows:

a) Physiological needs – This is a basic need for job satisfaction of mathematics teachers. Researcher used criteria for satisfying the physiological needs. These are, the salary of mathematics teacher is more than 16 thousands per month and workload is less than 25 hours.

- b) Security and safety needs –When the mathematics teachers feel they are safe toward their job, the security and safety need are fulfilled. Full time mathematics teachers with permanent job are the criteria for satisfying security and safety needs.
- c) Social and belonging needs- Position in school and respect in society are the factors for satisfying social and belonging needs of mathematics teachers.
- d) Esteem needs- Popularity in society is the factor for satisfying esteem needs of mathematics teachers.
- e) Self actualization needs- When the mathematics teachers feel self-fulfillment toward their job, the self actualization needs are satisfied.

### Age

Age refers to the life span of the teacher after he or she was born till the present day. In this research, researcher has divided the age into four categories they are: below 25 years, 25 - 30 years, 30 - 35 years and above 35 years.

#### Gender

Gender refers to male and female.

## Qualification

The degree the teachers holds or the degree obtained by the individual. In this research, researcher has divided the qualification into four categories they are: PCL or HSEB, bachelor and master.

# **Teaching Experience**

The number of years the teacher has served in various schools. In this research, researcher has divided the teaching experiences into four categories they are: below 2 years, 2 – 4 years, 4-6 years and above 6 years.

#### Work load

The number of hours the teacher has to teach in the class per week. It's calculated in average of the teaching hours. In this research, researcher has divided the workload into four categories they are: below 20 periods, 20-25 periods, 25-30 periods and above 30 periods.

## Income

Income refers to the amount paid by the school or the government to the teacher at the end of the month as salary. In this research, researcher has divided the income range into four categories they are: below 8 thousands, 8-12 thousands, 12-16 thousands and above 16 thousands.

#### **Private School**

A school wholly owned and maintained by a person or any institution other than government.

## **Public School**

A school directly maintained and managed by the government.

## **Chapter II**

#### REVIEW OF RELATED LITERATURES

A review of related literature is source of the further study of research task. It helps to conduct the research programs and gives the better idea of research. Then it guides towards the conclusion. Thus review of related literature is important and essential guidance of research planning. This study is design to identify the job satisfaction level of mathematics teachers teaching from grade V to grade X.

## **Empirical Literature**

The research conducted by Drukpa (2010) in Bhutan shows that the overall job satisfaction of teachers was at satisfied level in Bhutan. Aspects like different age, genders, years of teaching experiences and present position in school were found to be statistically significant and marital status, teaching hours, qualification and school level were not statistically significant. Although the satisfaction level is at satisfied level, there are some aspects like income, self esteem and intrinsic rewards where the teachers show the satisfaction to a moderate level. This implies that the secondary school teachers in Bhutan did not differ in their job satisfaction level in relation to marital status, teaching hours, qualification and school level. But the teachers were less satisfied with their job in relation to age, gender, teaching experience and present position.

The findings of Kyastha's (2012) study indicate job satisfaction in higher secondary level school teachers was satisfied in their occupation especially in teaching profession in Nepal. The dominant sources of job satisfaction in higher secondary level school teachers in Nepal appear to be work, coworker, and job in general. The government in Nepal will need to take action to address this if teachers' job satisfaction is to be increased in pay, promotion, and supervision. Despite these limitations, however, in conclusion, this work provides some

insight about the job satisfaction level of teachers among the higher secondary level school teacher of Nepal.

Hung's (1994) study result showed that primary school teachers were generally satisfied with their job. They placed higher value on the intrinsic facets on job satisfaction instead of extrinsic facets. Their attitude towards work was positive. The rate of anticipated drop-out was low. The statistics regarding their motivating potential and growth need strength implied that the teachers were ready to accept job enrichment. Significant difference was not detected between trained and untrained teachers, and teachers of various teaching modes, school sessions, age groups, length of teaching experience, and workload. However, there was some significant difference between male and female teachers, and difference was significant between teachers in different ranks and those teaching pupils of good and poor standards. Private primary school teachers, though having inferior job prospects, salary and security when compared with their government and aided sector counterparts, had higher motivating potential, growth need strength and general satisfaction. Disappointingly, government primary school teachers, who enjoyed better conditions of service, had lower scores in the motivating potential, growth need strength and mean scores of all facets of job satisfaction.

Similarly Fai's (1993) study result showed that among the five facets, teachers are found to be most dissatisfied with their opportunities for promotion. However, they are rather satisfied with their supervision and colleagues. As consistent with most research findings, small to moderate correlations are observed between the facets of job satisfaction and demographic variables. When group differences are tested using MANOVA, significant effects are obtained for age, teaching experience, student admitted, and major teaching subject.

Crossman & Harris's (2006) article report on a study that examined job satisfaction among secondary school teachers in different types of secondary school showed that low job satisfaction has been cited as a possible cause of the current teaching crisis in UK. The result indicates a significant difference in the overall job satisfaction scores of teacher by type of school. Teachers in independent and privately managed schools exhibit the highest satisfaction level while those in foundation schools exhibit the lowest. No significant difference in satisfaction was found when the data were analyses by age, gender and length of service.

The study of Ali, M.A.et.al (2011) on job satisfaction of secondary school teachers working in the secondary schools at district Sahiwal, the Panjab and Pakistan shows that there was a significant difference of job satisfaction between male and female secondary teachers. However no significant difference was found between the job satisfaction of rural and urban teachers.

Likewise Akhter's(2013) study reveals that the teachers are very satisfied with their job. Male and female teachers are not different from each other on job satisfaction variable. both male and female teachers teaching in degree colleges have unfavorable attitude towards education. Female teachers have more favorable attitude towards education as compared to their male counterparts.

Singh's(2013) study showed that the job satisfaction of teacher educators was positively but not significantly related to their attitude towards teaching. The job satisfaction of male and female teacher educators was also positively but not significantly related to their attitude towards teaching.

The more literature on job satisfaction in the developed countries then there is in developing country. It is asserted that very little has been written about teacher's job satisfaction from grade V to grade X in Nepal. I therefore believe that this study will

contribute to existing research literature and at the same time provides employers, Policy makers, school administrators and other stakeholders' relevant information on how teacher feel about their job.

#### **Theoretical Literature**

The phenomenon of job satisfaction is closely related to motivation, they are symbiotic concepts. High job satisfaction is directly tied to high motivation and vice versa. Surveys of various researches suggest that employees with a high sense of motivation also report a stronger sense of job satisfaction. Increased job satisfaction therefore, leads a heightened sense of both personal and professional motivation and likewise strong motivation result in more satisfaction in particular job. This implies that the theories of motivation are also regarded as theories of job satisfaction. There are many theories of motivation and job satisfaction and those theories are categorized into two, the content and the process theories. The content theory discussed in this section include: Maslow's hierarchy of need theory and Herzberg's Two Factor Theory. And the process theory discussed in this section includes: Equity Theory.

## **Content Theories of Motivation**

Content theories focus on factors within the person that start, energize, direct, maintain and stop the behaviour. Firstly, Abraham Maslow propounded the theory of motivation and job satisfaction. In his theory, Maslow claims that human beings have desires, wants and needs and those human needs are arranged in a hierarchy beginning with the most basic to the highest and these are: physiological needs, safety or security needs, social and belonging or affiliation needs, Self esteem, ego or status needs and the need for self actualization.

## **Hierarchy of Need Theory**

Abraham Maslow, a well known figure in the area of psychology and psychologist by profession believes that in the quest to fulfill the needs, individuals behaves and exhibit in a certain manner. Human get satisfaction only when their needs are fulfilled. His theory has three assumptions i.e. human needs never ends, when one need is fulfilled, the next hierarchy of needs need to be fulfilled so as to be satisfied and lastly human needs can be divided into various level depending on the importance. As and when the lowest level of need is fulfilled, the next level needs to be scaled and fulfilled to derive satisfaction. Maslow has divided the needs into five levels with the lower order needs to higher order needs.

### Level 1- Physiological need

This need is the basic nitty-gritty for the survival like food, air, shelters, clothing, medicines and sex. For the quest of basic the organizations pay in cash in terms of salary. And also by providing convenience for other physiological needs at the work place like providing dining room, nursing room, rest room, air- conditioned office and residence etc.

# Level 2- Security and safety needs

When the level one is met, humans crave for the next hierarchy, the safety like protection from the life risking hazards like safety equipments.

# Level 3- Social and belonging needs

Social and belonging needs for social acceptance and by the inner circle like the peers. At this stage, human crave foe respect from the colleagues and counter parts, for it the organization answers by organizing get together and field trips or by end of the year company party.

#### **Level 4- Esteem needs**

These were the need to become popular and be praised. Human with such thirsty needs are ready to sacrifice anything to succeed so that can create an image of worthiness and responsibility at work.

#### Level 5- Self actualization needs

It is the highest order of needs. Individuals view it differently from each other. Like aim and goal during the life time. Scaling the highest level of excellence in contributing to the society and leaving behind a legacy.

Maslow's theory suggest what organizations can do to satisfy and motivate their respective employees. This table gives a clear picture on how the theory can be applied in organizational contexts, be it in a school or an industry. Employees are people with complex needs that must be satisfied if they are to lead full and healthy lives and to perform effectively in the workplace.

It shows how Maslow's theory can be applied in workplaces this implies that employees bring with them to the organization their needs that require gratification.

Maslow's theory lays the basis or foundation of the phenomena of motivation and job satisfaction.

### **Herzberg's Two Factor Theory**

Frederick Herzberg's theory of motivation is a relative and realistic model of job satisfaction. His theory consists of two main components motivators and hygiene factors. Motivators describe the features of content of job like responsibility, autonomy, self esteem and self actualization opportunities. Herzberg and his colleagues are with the notion that criteria, when implemented to the optimum, motivates the individual with extra energy to work much harder and because of it results with the improved job performance. On the other side, the hygiene factor prevents dissatisfaction as it takes care of the lower needs like that

physiological, security or social needs preventing dissatisfaction. And the list is physical working conditions, salary, company policies, practices and benefits. Herzberg feels that the hygiene factor needs to be an acceptable standard if the organization wants the employees to work harder and increase some extra effort.

Upon comparison of the two theories of Maslow's theory with Herzberg theory, it can be concluded that Maslow's higher order needs are that of the motivators of Herzberg theory, which makes the person to be satisfied with the work. Whereas the Maslow's lower order needs can be compared with the hygiene factors of Herzberg.

#### **Process Theories of Motivation**

The process theories of motivation are primarily concerned with exploring how individuals' behavior is energized, directed, sustained and stop. The main process theories of motivation and job satisfaction review in this section include equity theory.

# **Adam's Equity Theory**

Adam's equity theory explains that individuals has a tendency to compare and contrast between the input and the output of the job, which means that they compare the workload their shoulder and the number of hours they work with the salary, benefits, bonus and other they receive, when the ratio between the input and the output are not equal humans or the individual tends to be dissatisfied and gives way towards job dissatisfaction. In principle, individuals tends to compare among the fellow mates whom they feel are of the same category. And on the other hand they experience job satisfaction when the ratio between the input and the output is equal and it gives an avenue motivation for the worker or the individual to raise the level of input for the better output or maintain the consistency of the job.

## **Concept and Definition of Job Satisfaction**

Upon reviewing various literatures; it has been found out that many experts have explored into the subject of job satisfaction and have come out with various kinds of definition of job satisfaction.

Drukpa(2010) explained that job satisfaction is an optimum positive feeling derived after the completion of a task in lieu to achieving the target of the organization. There by benefits the organization and in return the workers is rewarded either in cash or kind. This definition gives importance to the commitment between the job satisfaction and the benefit of the work.

The concept of job satisfaction has been developed in many ways by many different researchers and practitioners; one of the most widely used definitions in organizational research is that of Locke(1970) who defines job satisfaction is the extent to which one feels good about the job. It is in regard to one's feeling or state of mind regarding to the nature of their work. In other words, job satisfaction implies doing a job one enjoys, doing it well, enthusiasm and happiness with one's work. Everyone define job satisfaction as fulfillment of one's expectation. It differs from person to person and institution to institution and even in the context of male and female. In simple term when someone is satisfied with his/her job that is job satisfaction. Job satisfaction as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences. It results from the perception that one's job fulfills or allows the fulfillment of one's important job values, providing and to the degree that these values are congruent with one's needs.

Hulin and Judge (2003); who have noted that job satisfaction includes multidimensional psycho logic responses to an individual's job and that these personal responses have cognitive (evaluative), affective (or emotional) and behavioral components.

Job satisfaction is the level of contentment a person feels regarding his or her job. This feeling is mainly based on an individual's perception of satisfaction, job satisfaction can be influenced by a person's ability to complete required tasks, the level of communication in an organization and the way management treats employee. There are often two different levels of job satisfaction affective job satisfaction and cognitive job satisfaction. Affective job satisfaction is a person's emotional feeling towards the job as a whole. Cognitive job satisfaction is how satisfied a person feels concerning an aspect of his or her job, such as pay, hours or benefits.

Ngimbudzi(2009) explained the concept of teacher job satisfaction is defined as the teacher's affective relation to his or her teaching role and is a function of the perceived relationship between what one wants from teaching and what one perceives it is offering to a teacher. It is simply how people feel about their different aspect of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs. Additionally job satisfaction is the fulfillment acquired by experiencing various job activities and rewards. Whereas the concept of job satisfaction refers to the employee's feeling about her or his job. Similarly job satisfaction is a positive feeling about one's job resulting from an evaluation of its characteristics.

Looking through all these various definition and concepts provided by various experts, it can be seen that there is various similarities and dissimilarities. Therefore it can be concluded that, the work itself is very vital and it determines job satisfaction. And teachers' job satisfaction is the teacher's attitudes, perceptions and feelings that they have towards their job. It refers to whether teachers are happy with their job or not. In other words, if teachers have positive attitudes or good feeling about their job, these qualities are taken to describe a satisfied dimension.

## **Variables Contributing to Job Satisfaction**

There are wide ranges of factor related to job satisfaction or showing the seeds of dissatisfaction. However the focus of the researchers has varied depending on the interests of the researchers. Some of the variables used by research are discuss below.

#### Age

There are no concrete literature concerning the relationship between the job satisfaction and age, the existing literature seems to lead to a bleak conclusion. However Hertzberg et al drew a conclusion after a series of research that it can be explained through a U- shaped function. It explains that the level of job satisfaction is very high in the initial phase and starts to dwindle and reaches to such a crucial level where by it reaches a point of extinction but takes a turn and gears up towards the optimum level of satisfaction with the age.

#### Gender

When the relationship between gender and the job satisfaction was investigated, it has unveiled certain possibilities. Hoppock(1935) explained that females have higher level of job satisfaction but Lock explained that just the reverse explaining that males are more satisfied than the female with regards to job satisfaction.

# Qualification

When qualification or education is used as a variable to review the job satisfaction, it was found that the relation between the qualification and job satisfaction can be positive as well as negative. Drukpa (2010) explained that the qualification has a negative impact on job satisfaction. It was found that the fresh graduates with higher qualification are not satisfied with the mundane job they do.

#### Work

Work which satisfied the needs of employees is work providing opportunity to use one's value skills and abilities creativity and variety. Generally employees are satisfied with physical surroundings which are not dangerous or unforgettable. Drukpa (2010) explained there is strong correlation between the job satisfaction and the work load the individuals shoulder. By principle, when individual tend to spend more time with the work, so as the level of stress goes higher and greater the chance of burnout.

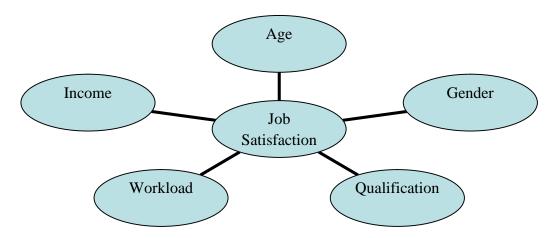
#### **Income**

The difference of valued pay and the obtained pay arises the income satisfaction. People with higher income are more satisfied with their job than the individuals with lower income. But money can't be termed as the most determinant factor contributing to the job satisfaction but money does make things worthwhile. Income is associated with status, Lifestyle and independence.

## **Conceptual Framework**

The conceptual framework followed the objectives of the study and was developed by integrating variables from different theories and related research on job satisfaction from literature review. Maslow's hierarchy of need theory forms the basis of job satisfaction. There is a direct correlation between job satisfaction and sense of self actualization and fulfillment. Hertzberg's theory distinguished two sets of work factors that determined job satisfaction. Motivators related to the actual performing of the work and hygiene factors relating to work environment. Similarly equity theory links between input and output. When people perceive and experience what they doing as fulfilling, their commitment and productivity increase this constitutes job satisfaction.

Title: Job satisfaction of mathematics teachers



## Chapter III

#### METHODS AND PROCEDURES

In this chapter the researcher explains the methods or the methodology used in finding out the differences of level of job satisfactions according to age, gender, qualification work and income. The researcher focuses on the mathematics teachers teaching from grade V to grade X in the Kathmandu district. The methods of this research include: design of the study, population of the study, sample and sample selection procedure, data selection procedure, tools and data analysis procedure

# **Design of the Study**

According to Ngimbudzi (2009) a research design refers to "the plan, structure, and strategy of investigation conceived so as to obtain answers to research questions and control variance." The research questions for the current study were answered through quantitative way. Thus, the current study used a survey research design in collecting data.

## **Population of the Study**

According to Ngimbudzi (2009) the term population is defined as a group of persons having a common characteristic. For instance, all secondary school teachers or all secondary school principals in a particular district, region or country would form a population. Thus, the current study was conducted among the mathematics teachers teaching from grade V to grade X inside the Kathmandu district in public and private schools.

# Sample of the Study

"A sample is 'a small portion of the study population' .Researchers are required to collect data from a smaller number of participants who are part of the large population or group and that smaller number is what is referred to as a sample" (Ngimbudzi, 2009). Thus, the sample for the current study comprised 300 mathematics teachers teaching from grade V to grade X inside the Kathmandu district.

## **Sample Selection Procedure**

To select the sample, the researcher used a probability sampling method (Stratified random sampling). "Strata is a groups within the population formed in such a way that each group is relatively homogeneous, but wider variability exists among the separate groups and selecting a simple random samples from mutually exclusive sub-population or strata is stratified random sampling" (Pandit, 2008).

In the current study, multistage sampling is used in selecting the study sample.

Among the various places in Kathmandu district, four places were selected by adopting stratified random sampling. The places for selecting sample were Kalanki, Gaushala, Nayabazar and Gangabu in purposive way. The main reason for selecting only these areas in this study was the fact that the schools in Kathmandu District are very scattered and it would have been very expensive and time consuming for the researcher to obtain data from some of the schools that are located in very remote areas

According to data given by District education office, There are Total of 912 lower secondary and secondary schools inside the Kathmandu district. Among them 122 schools were chosen randomly. 50 respondents from 20 schools were selected from Kalanki area.75 respondents from 30 schools were selected from Gaushala area. 120 respondents from 48 schools were selected from Nayabazar area. And 55 respondents from 24 schools were selected from Gangabu area. There was not equal number of respondents in each school. In some school, there were only one respondent which researcher needed but somewhere there are more than 5 respondents. Altogether 300 mathematics teachers as respondents were selected from 122 schools.

#### **Data Collection Procedure**

To collect the data, the researcher visited some schools and met with the principals and explains about the purpose of visit. The researcher requested the principal to contact the

mathematics teachers and gave the questionnaire. Similarly researcher requested to those person who were teaching mathematics subjects in Kathmandu district and handover the questionnaire. In the questionnaire the participants were asked to indicate their level of satisfaction with each of the 26 items using the Five Likert Scale ranging from very unsatisfied to very satisfied.

#### **Tools**

The data collection tools of this study were questionnaire and interview. The thematic foundation of this research study based on the need – based approach or content theory of motivation. To this ends, questions in the questionnaire followed in many ways and themes the classic workers Maslow and Herzberg theory. The questionnaire was modified questionnaire developed from research related to job satisfaction of teachers which was conducted by Drukpa (2010) in Bhutan. And the questionnaire is segmented into two parts.

Part first contains the general information of the respondents addressing the personal characteristics used in the conceptual framework like age, gender, qualification, teaching experiences, teaching hours and salary.

Part second contains the job satisfaction facets. The job satisfaction was measured with the construction of the five point Likert scale from very unsatisfied to very satisfied which identified the different level of job satisfaction. There are 26 items. Out of them five items were fall under the age category. Similarly another five items were fall under the gender category. Another six items were fall under the qualification category then five items were fall under the category work and finally five items were fall under the category income. Each items had five options from very unsatisfied to very satisfied to choose what they feel. Every option was given marks as follows: 1=very unsatisfied, 2=unsatisfied, 3= moderate, 4=satisfied and 5=very satisfied. Interview was taken within 10 mathematics teachers who have at least 7 years work experiences, to collect the view of their job.

According to Drukpa (2010), the level of satisfaction is considered from the score of the answer and was classified into 5-level as follows:

High score – low score

Number of level

= 5-1/5

=0.8

For finding the Job satisfaction level of mathematics teacher, researcher converted the ordinal data from questionnaire into interval scale by using five levels from one to five with equal interval of 0.8. The criteria for understanding the means of satisfaction level was follow.

Table 3.1 Criteria for understanding the means of satisfaction level

Mean score	Level of satisfaction
1-1.8	very unsatisfied
1.81-2.60	unsatisfied
2.61-3.40	moderate
3.41-4.20	satisfied
4.21-5.00	very satisfied

From the questionnaire, after finding the mean of each questions, researcher used the above five intervals by which the mathematics teachers' job satisfaction levels were categorized. Therefore researcher used above criteria for determining the mathematics teachers' job satisfaction level.

### **Reliability and Validity of Tools**

The term reliability means consistency in measurement. In ensuring that the tools that was used to measure mathematics teachers job satisfaction is reliable two things were done and these include the following. A pilot survey which sampled 10 mathematics teachers teaching from five secondary schools was conducted in Kathmandu district. Each participant

received a modified questionnaire developed from the research related to job satisfaction which was conducted in Bhutan by Drukpa(2010), with explaining the purpose of the study.

Respondents returned their questionnaire within one week. Interview was arranged, during one week, each participant was asked to evaluate the instrument with regard to clarity, any ambiguous questions which might appear the order of the questions, the appropriateness of the information requested and the suitability of the response format. Respondents in the pilot survey showed general approval for the main survey. Most items were considered to be appropriate in describing the job of teaching profession. And reliability in interview was established by questioning same question in different times.

A tool is valid if it measures what is supposed to measure. The validity of tools used in this study was attained through present it to subject experts and comparing the result with other sources.

# **Data Analysis Procedure**

The questionnaires were coded. All the variables considered in the study were collected on the nominal scale. For the further analysis, these were converted into interval scale. Teachers' age was divided in the four intervals which are less than 25, 25 – 30 years, 30-35 years and above 30 years. Similarly, Teachers' workload was divided in the four intervals which are below 20 hours, 20- 25 hours, 25- 30 hours and more than 30 hours. And Teachers' income was divided in the four intervals which are below 8 thousands, 8 – 12 thousands, 12-16 thousands and above 16 thousands pr month. The data collected from the field was analysed based upon objectives of the study adopted. The following statistics was used in data analysis.

The personal information for the 300 respondents were calculated using descriptive statistical technique while factor analysis was computed to analyse the 26 items in the questionnaire. According to Ngimbudzi (2009) the descriptive statistics are a set of

statistical tools that allow us to accurately describe a large volume of data with just a few values. Therefore descriptive statistical technique were used to obtain frequencies, analyse and summarize data before making inferences. The frequencies command provides descriptive statistics for the total number of study participants. Descriptive statistical techniques were also used in presenting information received from the study in order to describe the characteristics of information of sample by using percentage, mean and standard deviation. Mean was used to find the average and for determine the factors that mathematics teachers are satisfied with and standard deviation was used to find the scatterness of the data.

One way analysis of variance (ANOVA) f- test and the independent sample t-test were used to compare the level of job satisfaction of mathematics teachers teaching from grade five to grade ten with regard to age, gender, qualification, work and income. According to Ngimbudzi (2009) ANOVA refers to a statistical technique for determining whether several groups differ on more than one dependent variable. In the current study, the technique ANOVA was used for determining whether mathematics teachers' job satisfaction differ significantly in relation to age, qualification, work and income. Additionally, the independent sample t-test was used to determine whether mathematics teachers' job satisfaction differ significantly in relation to gender.

In this research data, mathematics teachers' view towards their job was collected with the help of interview. Then the view was coding with mutual response, meaning making and attaching with the result from survey data.

## **Chapter IV**

#### ANALYSIS AND INTERPRETATIONS OF DATA

In this chapter, the researcher presents the results of the research conducted on the job satisfaction of the mathematics teachers teaching from grade V to grade X of Kathmandu district of Nepal. In the process of conducting the research, the researcher collected the data by means of questionnaire and interview. The questionnaires were distributed to 300 teachers teaching from grade V to grade X in Kathmandu district, which is the total sample strength. And interview was taken within 10 mathematics teachers teaching from grade V to grade X inside the Kathmandu district. The response was very positive with 100% responded. After the collection of data, the data was analysed and research findings are presented in the following way.

# **Number and Percentage of the Sample**

The general characteristics of the data were analysed in terms of frequency, percentage, mean and standard deviation. Out of 300 respondents, more respondents (46.67% which constitute 140 respondents) fall under the age group between 25 – 30 years followed by 19% which constitute 57 respondents falls under the group between 30 – 35 years followed by 19.67% (which constitute 59 respondents) fall under the age group less than 25 years. And 14.66% (which constitute 44 respondents) fall the age group of 35 and above age group.

The sample has more of male teachers with 60% (which constitute 180) male mathematics teachers and 40% constituting 129 female teachers. With regard to qualification, 21% with 63 respondents had PCL/HSEB qualification, 55% with 165 respondents had bachelor degree and 24% with 72 respondents had master degree. The teaching experience varied from one year to more than six years in the service. Most of the mathematics teachers (105 respondents with 35%) had the teaching experience between 2 – 4 years. 16-67 % (with

50 respondents) had the teaching experience less than 2 years. Similarly, 21% (with 63 respondents) had the teaching experience between 4 – 6 years and 27.33% (with 82 respondents) had the teaching experience of 6 and above years.

Out of 300 respondents, large number (169 respondents with 56.33%) had more than 30 hours of teaching periods per week. 4.67% (with 14 respondents) had less than 20 teaching hours, 15.67% (with 47 respondents) had teaching hours between 20 – 25 hours and 23.33% (with 70 respondents) had teaching hours between 25 – 30 teaching hours per week.

As far as salary is concerned, most of the respondents 46.67 % (with 140 respondents) had salary between 8 -12 thousands per month. 15 % (with 45 respondents) had salary less than 8 thousands per month. Similarly, 26.67% (with 80 respondents) had salary between 12 – 16 thousands and 11.66% (with 35 respondents) had the salary 16 thousands and above per month.

#### Job Satisfaction of the Mathematics Teachers in Kathmandu District

When answers of the mathematics teachers participating in the study to the statements in the scale used to evaluate their job satisfaction are examined, it is seen according to the mean of the points teachers gave to all the statements in general that the satisfaction level of the mathematics teachers teaching from grade V to grade X in Kathmandu district of Nepal with regard to age is in moderate level. All five items from the facets falls under the moderate level with mean score of 3.11 and 1.11 as the SD. Job satisfaction of mathematics teachers with regard to age is the highest with the school has a conducive teaching learning environment with mean score 3.27 and 1.13 of SD and it is minimum with the teacher are happy with their job according to age with mean score of 2.79 and 1.08 of SD. Similarly, the satisfaction level of the mathematics teachers teaching from grade V to grade X in Kathmandu district of Nepal with regard to gender is in moderate level. All five items from the facets falls under the moderate level with mean score of 2.99 and 1.15 as the SD. Job

satisfaction of mathematics teachers with regard to gender is the highest with they have enough support from other teachers of different gender with mean score 3.11 and 1.21 of SD and it is minimum with the teachers' works are duly acknowledged by supervisor with mean score of 2.79 and 1.17 of SD.

The satisfaction level of the mathematics teachers teaching from grade V to grade X in Kathmandu district of Nepal with regard to qualification is in moderate level. Four items from the facets falls under the moderate level and one item is fall under unsatisfied level with mean score of 2.86 and 1.11 as the SD. Job satisfaction of mathematics teachers with regard to qualification is the highest with they are capable of performing well with mean score 3.31 and 1.23 of SD and it is minimum with the teachers' income is appropriate to their qualification mean score of 2.39 and 1.09 of SD.

The overall satisfaction of the work was at moderate level with mean scores of 2.75 and 1.06 SD. The result reflect that the teachers usually assigned with important work has the highest satisfaction level with the mean score of 2.9, and the teachers has enough freedom to make their own decision within the given responsibilities has the minimum mean score of 2.69. The overall satisfaction of the income was at unsatisfied level with mean scores of 2.37 and 1.07 SD. Out of five items in the facet, all five items are falls under the category of unsatisfied level.

Comparative analysis of the result reveals that the teachers are paid with appropriate wage level for the amount of work with the mean score 2.6, followed by a mean score of 2.56 where the Supervisors have a fair and reasonable justice in staffs promotion and salary. Next in line is the Current salary amount is suitable for staffs' responsibilities in school with the mean score 2.49. Then the monthly income is sufficient enough to lead a decent life in the society with the mean score of 2.41. Ulternately teachers satisfied with their salary given from school has the minimum mean score of 2.17.

The job satisfaction level of mathematics teacher teaching from grade V to grade X with regard to age, gender, qualification and work is moderate level. And the job satisfaction of mathematics teacher teaching from grade V to grade X in terms of income is unsatisfied level. The mean score of Age, Gender, Qualification, work and Income were 3.11, 2.99, 2.86, 2.75 and 2.37 respectively. And overall average mean score of job satisfaction is 2.82, which falls in a moderate level. Mathematics teachers teaching from grade V to grade X said that most of the people are come from rural area of the country for their higher study and job. Those who are students want to do side job for their livelihood. Beside study, they are doing the job like teachers. Another reason would be the unemployment problem, everybody wants to do good job but very difficult to find the job what they want. So they have to do teaching although they are not interested.

With regard to gender, mathematics teacher's opinion is that the number of female mathematics teachers teaching from grade V to grade X as compared to male is low, the reason could be the school administration is not agree to appoint female as a mathematics teachers as compared to male. Mathematics teachers are not happy with their job. Because of unemployment problem it's very difficult to find a suitable job according to the interest of people. And poverty is another reason of doing the job without interest of people. So many mathematics teachers who engage in teaching profession without their interest is one of the example. Though money is not everything but money makes things worthwhile. To make a life beautiful money is considered as a main factor. But teachers have to do the job in low salary amount because of very high competition for finding a job.

#### The overall Job Satisfaction Level of Mathematics Teachers

The overall job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district of Nepal with different aspects age, gender, qualification, workload and income are below.

Table 4.1 The overall Job Satisfaction Level of Mathematics Teachers

Aspects	mean	SD	Meaning
Age	3.11	1.11	Moderate
Gender	2.99	1.15	Moderate
Qualification	2.86	1.11	Moderate
Work	2.75	1.06	Moderate
Income	2.37	1.07	Unsatisfied
Average	2.82	1.10	Moderate

Note: 1-1.8 = very unsatisfied, 1.81-2.60 = unsatisfied, 2.61-3.40 = moderate, 3.41-4.20 = satisfied, 4.21-5.00 = very satisfied

It is found that the overall job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district of Nepal was in moderate level with the mean score 2.82 and 1.10 SD. Out of the 5 facets four falls under the moderate level and the rest one facet is fall under unsatisfied level. However, there is not much of difference in the mean score. Thereby the findings of the overall job satisfaction were moderate level. The table also demonstrates that the teachers in Kathmandu have job satisfaction in age the most with the means core of 3.11 followed by gender with 2.99, followed by qualification with 2.86, then the work with 2.75 and the least satisfaction is the income with the mean score of 2.37.

## Analysis of the Effect on the Level of Job Satisfaction

The research job satisfaction of the mathematics teachers teaching from grade V to grade X in Kathmandu district of Nepal intends to find out the satisfaction level of the mathematics teachers teaching from grade V to grade X in terms of age, gender, qualification, work and income.

## Age and Job Satisfaction

The job satisfaction of the mathematics teachers teaching from grade V to grade X in terms of age is given below.

**Table 4.2 Age and Job Satisfaction** 

Age in year	n	X	S.D	Degree of	Mean sum	F	Tabulated	Result
				freedom	of square	value	value(f <sub>0.05)</sub>	
Below 25	59	3.42	1.17	k-1=3	MSB=19.52	16.68	2.6	Accept
25 – 30	140	2.59	1.02	n-k=297	MSW= 1.17			
30 – 35	57	2.83	1.08					
35 and above	44	3.6	1.17					

The table illustrates the overall job satisfaction with regard to age. The findings indicated that it has statistically significant difference with 0.05 level of significance. This means that the age does have an impact on the level of job satisfaction. The satisfaction level is at the highest with the mathematics teachers whose age are 35 and above years followed by the age less than 25 years and age between 30 - 35 years. However the age range of 25 - 30 years seems to be less as compares to the former three ranges.

The findings indicated that it has a statistically significant difference when compared with the various age ranges. It has been found out that as the teacher grows older and older the satisfaction level goes higher and higher. Higher the age the satisfaction level is more probably because they spent more time in the system and has adapted with the situation and the system. Another reason would be the maturity of the age and contentment with the work and adaptability. The reason for the younger teachers have lesser satisfaction level could be because they are more ambitious and their needs are more and gets peer pressure from the fellow mates who work in other departments and are better off comparing to the teaching profession. Thus age as a hypothesis is accepted.

#### **Gender and Job Satisfaction**

The job satisfaction of the mathematics teachers teaching from grade V to grade X in terms of gender is given below.

**Table 4.3 Gender and Job Satisfaction** 

Gender	n	X	S.D	t value	Tabulated	Result
					value(t 0.05)	
male	180	3.08	1.28	1.06	1.96	Reject
female	120	2.90	1.02			

The table illustrates the overall job satisfaction with regard to gender. The findings indicated that it has no statistically significant difference with 0.05 level of significance. This means that the gender does not have an impact on the level of job satisfaction. Male teachers have higher level of satisfaction then females. The reason could be because of the misconception that only male teachers can teach mathematics properly whereas the female teacher cannot. The school administration is also not agree to appoint female as a mathematics teacher. Then the result has indicated that there is no difference of mean with gender in terms of satisfaction level. Therefore the gender as a hypothesis is rejected.

# **Qualification and Job Satisfaction**

The job satisfaction of the mathematics teachers teaching from grade V to grade X in terms of qualification is given below.

**Table 4.4 Qualification and Job Satisfaction** 

Qualification	n	X	S.D	Degree of	Mean sum	F	Tabulated	Result
				freedom	of square	value	value(f <sub>0.05)</sub>	
PCL/HSEB	63	3.32	1.23	k-1=2	MSB=15.39	12.72	3.0	Accept
				- 1- 200	MCW 1 21			
Bachelor	165	2.89	1.08	n-k=298	MSW=1.21			
Master	72	2.37	1.02					
Master	12	2.31	1.02					

The table illustrates the overall job satisfaction with regard to qualification. The findings indicated that it has statistically significant difference. This means that the qualification does have an impact on the level of job satisfaction. It was found that the teachers with qualification PCL/HSEB were more satisfied than teachers with qualification bachelor and master so the qualification has a negative impact on job satisfaction. The findings indicated that higher the qualification lesser the satisfaction level. Therefore qualification as a hypothesis is accepted.

# Workload and job satisfaction

The job satisfaction of the mathematics teachers teaching from grade V to grade X in terms of workload is given below.

Table 4.5 Workload and job satisfaction

Workload in	n	X	S.D	Degree of	Mean sum	F	Tabulated	Result
hours				freedom	of square	value	value(f <sub>0.05)</sub>	
Below 20	14	3.26	1.09	k-1=3	MSB=31.7	30.48	2.6	Accept
20 - 25	47	2.9	1.14	n-k=297	MSW=1.04			
25 - 30	70	2.82	1.04					
30 and above	169	2.02	0.97					

The variable selected for teachers' work load was the total teaching periods per week which are categorized into four parts. The table illustrates the overall job satisfaction with regard to workload. The findings indicated that it has statistically significant difference. This means that the workload does have an impact on the level of job satisfaction. The result indicated that more the teaching hours, less was the satisfaction level. The satisfaction level is at the highest with the mathematics teachers who have 30 and above teaching hours per week followed by the teaching hour between 25 – 30 hours and between 20 – 25 hours. However the teaching hours below 20 hours seems to be less as compares to the former three ranges.

The reason could be heavier the workload chances for increase in the stress level. Thus the workload as a hypothesis is accepted.

#### **Income and Job Satisfaction**

The job satisfaction of the mathematics teachers teaching from grade V to grade Xin terms of income is given below.

Table 4.6 Income and Job Satisfaction

Salary in	n	X	S.D	Degree of	Mean sum	F	Tabulated	Result
thousands				freedom	of square	value	value(f <sub>0.05</sub> )	
Below 8	45	2.01	1.09	k-1=3	MSB=6.37	5.49	2.6	Accept
8 - 12	140	2.17	1.08	n-k=297	MSW=1.16			
12 – 16	80	2.56	1.10					
16 and above	35	2.74	1.01					

The table illustrates the overall job satisfaction with regard to income. The findings indicated that it has statistically significant difference. This means that the income does have an impact on the level of job satisfaction. The result indicated that the more income, the satisfaction level is also high. The satisfaction level is at the highest with the teachers whose income was more than 16 thousands per month followed by the income range 12 - 16 thousands and 8 - 12 thousands per month. The income less than 8 thousands per month seems to be less satisfied as compared to the former three ranges. The reason could be the teachers survive on just the salary which they get at the end of the month and they didn't have any other side income. Therefore income as a hypothesis is accepted.

## **Summary of the Research Result**

The overall summary of the research result is follow.

**Table 4.7 Summary of the Research Result** 

	Hypothesis	Result
J	Job satisfaction of mathematics teachers teaching from grade V to	Accept
	grade X in Kathmandu district is statistically significant by age.	
J	Job satisfaction of mathematics teachers teaching from grade V to	Reject
	grade X in Kathmandu district is statistically significant by gender	
J	Job satisfaction of mathematics teachers teaching from grade V to	Accept
	grade X in Kathmandu district is statistically significant by	
	qualification	
J	Job satisfaction of mathematics teachers teaching from grade V to	Accept
	grade X in Kathmandu district is statistically significant by workload.	
J	Job satisfaction of mathematics teachers teaching from grade V to	Accept
	grade X in Kathmandu district is statistically significant by income.	

The research hypothesis of this study was the mathematics teachers' job satisfaction is different by their age, gender, qualification, work load and income. The research findings showed that the job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by age. Therefore the research hypothesis in terms of age was raccepted. Similarly the job satisfaction is not statistically significant by gender. Therefore the research hypothesis in terms of gender was rejected. Likewise the job satisfaction is statistically significant by qualification. Therefore the research hypothesis in terms of age qualification was accepted. The job satisfaction of mathematics teachers is statistically significant by workload. Therefore the research hypothesis in terms of workload was accepted. And the job satisfaction of mathematics teachers is statistically significant by income. Therefore the research hypothesis in terms of income was accepted.

## Chapter V

## SUMMARY, FINDING, CONCLUSION AND RECOMMENDATIONS

This last and concluding chapter concern with summary, finding, conclusion and recommendation. The first section reveals the summary, the next section list the major finding and conclusion derived on the basis of research analysis and final section recommendation for further study.

## **Summary of the Study**

The main purpose of this research was to find out the job satisfaction of mathematics teacher teaching from grade V to grade X in Kathmandu district of Nepal and to compare the level of job satisfaction of mathematics teacher teaching from grade V to grade X in Kathmandu district with regard to Age, Gender, Qualification, Work and Income. A descriptive survey method was used as a research method and the questionnaire and interview was developed and used as the key instrument. Descriptive statistic like percentage, mean, SD was used to addressing the general characteristics of the sample. The population of the study was the teachers teaching from grade V to grade X in Kathmandu district of Nepal and the sample size was 300 mathematics teachers teaching from grade V to grade V to grade X in Kathmandu district.

Out of 300 respondents, 19.67% which constitute 59 respondents falls under the age group less than 25 years. 46.67% which constitute 140 respondents falls under the age group between 25 - 30 years. 19% which constitute 57 respondents falls under the group between 30 - 35 years and 14.66% which constitute 44 respondents fall the age group of 35 and above age group.

The sample has more of male teachers with 60% which constitute 180 male mathematics teachers and 40% constituting 129 female teachers. With regard to qualification, 21% with 63 respondents had PCL/HSEB qualification, 55% with 165 respondents had

bachelor degree and 24% with 72 respondents had master degree. The teaching experience varied from one year to more than six years in the service. Most of the mathematics teachers (105 respondents with 35%) had the teaching experience between 2 – 4 years. 16-67 % with 50 respondents had the teaching experience less than 2 years. Similarly, 21% with 63 respondents had the teaching experience between 4 – 6 years and 27.33% with 82 respondents had the teaching experience of 6 and above years.

Out of 300 respondents, large number 169 respondents with 56.33% had more than 30 hours of teaching periods per week. 4.67% with 14 respondents had less than 20 teaching hours, 15.67% with 47 respondent had teaching hours between 20 – 25 hours and 23.33% with 70 respondents had teaching hours between 25 – 30 teaching hours per week. As far as salary is concerned, most of the respondents 46.67% with 140 respondents had salary between 8 -12 thousands per month. 15% with 45 respondents had salary less than 8 thousands per month. Similarly, 26.67% with 80 respondents had salary between 12 – 16 thousands and 11.66% with 35 respondents had the salary 16 thousands and above per month.

On reviewing the result of the research, it was found that the mean score of Age, Gender, Qualification, work and Income were 3.11, 2.99, 2.86, 2.75 and 2.37 respectively. And overall average mean score of job satisfaction is 2.82, which falls in a moderate level. However, there is not much of difference in the mean score. The finding of the overall job satisfaction was moderate level. The result demonstrated that the mathematics teachers teaching from grade V to grade X in Kathmandu district had low job satisfaction or less satisfied.

The result indicated that job satisfaction with regard to age was in moderate level.

When compared with various age ranges, it was found that most of the mathematics teachers are the age ranges between 25-30 years. Because of the ambitious feeling of young teachers

they wanted to do better job than the current job. So they are not satisfied with their job according to their age.

With regard to gender, Job satisfaction was moderate level. Out of 300 respondents male teachers were more than the female teachers. Although the government of Nepal has a non-discriminatory policy against gender, there seems to be a difference in the number of respondents. The main reason could be, mathematics is considered as a hard subject in our society and the misconception might be female teachers cannot teach mathematics properly. In terms of difference in qualification, the result indicated that, out of 300 respondents 165 respondents (55%) had bachelor degree certificate and the satisfaction level with regard to qualification is also in moderate level, the reason might be they wanted to do another job rather than teacher. But because of unemployment problem of country they had to do the job like teacher.

The findings indicated that, the job satisfaction of mathematics teachers teaching from grade V to grade X in terms of work was also in moderate level. The reason might be most of the respondents had to do more than 30 teaching hours per week, they had very heavy workload in their shoulders and give more time to the school even not in school time. Finally, Data showed that among the five facets, income had the lowest mean in all its' items. The job satisfaction of mathematics teachers with regard to income was unsatisfied level. This indicates that mathematics teachers' respondents felt that their salaries cannot make it more at par with the present economic condition. The reason could be out of 300 respondents; most of the respondents (140 respondents) had the salary between 8 -12 thousands per month. This amount is not sufficient enough for the person to spend decent life in society.

The data was analysed using t- test and one way ANOVA (f- test). From the data, it was found that the aspects like age, qualification, workload and income were found to be statistically significant difference. And there is no significant difference between job

satisfaction and gender. This means that the aspects like age, qualification, workload and income have an impact on the level of job satisfaction. And gender does not have impact on the level of job satisfaction.

## **Findings of the Study**

In the case of finding out the job satisfaction of mathematics teacher teaching from grade V to grade X in Kathmandu district and compare the level of job satisfaction of mathematics teacher teaching from grade V to grade X in Kathmandu with regard to age, gender, qualification, work and income; the findings of the research are:

- The job satisfaction level of mathematics teacher with regard to age is moderate level.

  Majority of mathematics teachers are of age group between 25 30 years. And Job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by age
- The job satisfaction level of mathematics teacher with regard to gender is also in moderate level. More respondents were male teachers. And job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is not statistically significant by gender.
- The job satisfaction level of mathematics teacher with regard to Qualification is also in moderate level. 55 % respondents which constitute 165 respondents had passed bachelor degree. And job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by qualification.
- The job satisfaction level of mathematics teacher with regard to work is moderate level. Large number of respondents (169 respondents) had to work more than 30 teaching hours per week. And job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by workload.

- The job satisfaction level of mathematics teacher with regard to income is unsatisfied level. Out of 300 respondents, 140 respondents had salary amount between 8 12 thousands per month. And job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by income.
- The overall job satisfaction of mathematics teacher teaching from grade V to grade X is in moderate level.

#### Conclusion

From the result of the study, the researcher found that the overall job satisfaction of mathematics teachers teaching from grade V to grade X Kathmandu district of Nepal was in moderate level. The job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district with regard to age was in moderate level, due to the lack of interest in teaching profession and more respondents were the age between 25 – 30 years. This age is very ambitious age and teachers are not respected in the society, so the job satisfaction of mathematics teachers with regard to age is moderate level. And job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by age.

Similarly the job satisfaction level of mathematics teacher with regard to gender is also in moderate level. Because of the misconception that only male teachers can teach mathematics properly whereas the female teacher cannot. The school administration is also not agree to appoint female as a mathematics teacher. And job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is not statistically significant by gender Likewise the job satisfaction of mathematics teachers with regards to qualification is in moderate level. This is so, because of the unemployment problem of the country. People have to engage the teaching profession even without their interest. And job

satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by qualification.

The job satisfaction level of mathematics teacher with regard to work is also in moderate level. Most of the respondents (169 respondents which constitute 56.33%) have to work more than 30 teaching hours per week in the school. They have to follow the strict rules and regulations of the school administration. And job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by workload. Lastly, the job satisfaction of mathematics teachers with regard to income is unsatisfied level. Majority of the respondents (140 respondents with 46.67%) have the salary amount between 8 – 12 thousands per month. This amount is not sufficient enough for a person to spend a decent lifestyle in society. And job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district is statistically significant by income.

Hence the overall job satisfaction of mathematics teachers teaching from grade V to grade X in Kathmandu district of Nepal is moderate level. Research indicates that the mathematics teachers are not satisfied with their job. They have to give more time, work hard even they get low salary. Due to the unemployment problem of the country, they have to engage the job in less salary amount even teaching profession is not their part of interest. The discussion above supports Maslow's hierarchy theory, Hertzberg's two factor theory and Adam's equity theory, According to Maslow there is hierarchy of basic human needs, where one level of need in the hierarchy is must be satisfied before other levels of needs can be satisfied. From the research findings, Maslow's first level physiological needs are only satisfied but not other level needs are satisfied because mathematics teachers teaching from grade V to grade X are less satisfied with their job so they are not feel secure and safe which is the second level need of Maslow's theory. Similarly it was found that more teachers (169 respondents out of 300) work more than 30 teaching hours per week and more teachers (140

respondents out of 300) have salary amount between 8 – 12 thousands per month. This shows that the teachers have to work hard even without more salary amount. According to Hertzberg hygiene factors (good working condition, pay) prevents job dissatisfaction but the research findings indicated that the satisfaction level of mathematics teachers is at moderate level or less satisfied level. So the hygiene factors (good working condition, pay) could not able to prevent job dissatisfaction. And according to Adam's theory as the theoretical framework for this study, the ratio between input (age. qualification, workload, income) and output (satisfaction) are not equal so, mathematics teachers teaching from grade V to grade X are not satisfied with their job.

It was found that mathematics teachers teaching from grade V to grade X had low self – esteem and feel, they are not respected by communities and social in general. School teacher in general felt that compared to other profession, teaching is a low status job. In fact he status of teachers particularly male teachers, had suffered so severely that educated unemployed become teachers only as a last option and leave immediately when better and more respected job opportunities comes away.

So the government and school administration will need to take action to address these problems so that job satisfaction is to be increased. If the teachers satisfaction with their job, they will develop and maintain high level of performance teaching learning process make more efficient and effective that could product high competitive learners.

The result of this study didn't differ significantly from previous works and literature review on job satisfaction. The study's result agreed with most of the findings regarding the job satisfaction. Overall factors seem to have a greater impact on job satisfaction. The results of the analysis indicate that physiological needs, security needs, social needs, self- esteem needs and self actualization needs are significant predictors of job performance of mathematics teachers. Therefore this study also supports Ololube's (2014) study that explains

that an occupation is primary source of need satisfaction. The likely explanation for the findings of this study is that mathematics teacher's need adequate educational policies and administration in terms of reasonable payment and workload with the job they do for them to be able to satisfy their basic needs in life such as food, clothing, health care etc. When teachers' needs are satisfied, it promotes their physiological well beings and enables optional functioning and performance. On the contrary when teacher's environment or personality style (age, gender, and qualification) doesn't afford these kinds of experiences, they fail to do well. Also an individual is best off when his or her needs are satisfied and worst off when they are not satisfied. Nepalese mathematics teacher's dissatisfied with income, workload, were associated with the intension to leave the teaching profession.

Mathematics teachers feel that they are cheated, underpaid and made them in insecure condition where the administration pays less attention to teacher's dignity and self esteem.

Teachers are human beings with various needs to be satisfied and failure to have such needs satisfied leads to frustration.

The theoretical question of this study supports the notion that what motivates average Nepalese mathematics teachers to be dissatisfied with his/her job doesn't' depends on educational policy and administration alone but on cultural, social and economic underpinning. In addition, this study suggests that Adam's equity theory with matches the notion of "a fair days work for a fair day's pay" be applied in all sectors of the economy as equity and fairness in workplace has been found to be major factor in determining employee job satisfaction. Therefore the plighted of the Nepalese mathematics teachers should not be overloaded.

#### Recommendations

Although the research findings indicated that the overall job satisfaction level of mathematics teachers teaching from grade V to grade X school in Kathmandu district are

moderate level. Some of the aspects like age, gender, qualification and work are in moderate level and unsatisfied level in income aspects. This means that the mathematics teachers in general in this district are not happy with these aspects. In order to sustain the present education system, the human resource and better equip for the future challenges the following points are recommended for further study.

- The present research findings are totally based on the mathematics teachers teaching from grade V to grade X in Kathmandu district, which is an urban area, a similar kind of research can be conducted in the rural areas and make a comparative analysis.
- A comparative study of job satisfaction of teachers teaching in private and public school would prove to provide interesting result.
- To study the effect of peer pressure on teaching professionals and how it effect the job satisfaction.
- Impact of management on teacher's job satisfaction could be an interesting topic.
- A qualitative research on the job satisfaction of teacher can highlight the reason of dissatisfactions.

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## **Appendix**

Number and percentage of the Sample with Age, Gender, Qualification, Teaching experiences, Teaching hours and Salary

Table 1 Number and Percentage of sample according to age

Age	Number	percentage
Less than 25 year	59	19.67
25-30 years	140	46.67
30-35 years	57	19
35 and above	44	14.66
Total	300	100

Table 2 Number and Percentage of sample according to gender

Gender	Number	Percentage
Male	180	60
female	120	40
total	300	100

Table 3 Number and Percentage of sample according to qualification

Qualification	Number	Percentage
PCL/HSEB	63	21
Bachelor	165	55
Master	72	24
Total	300	100

**Table 4 Number and Percentage of sample according to teaching experiences** 

<b>Teaching Experiences</b>	Number	Percentage
Below 2 years	50	16.67
2-4 years	105	35
4-6 years	63	21
Above 6 years	82	27.33
Total	300	100

Table 5 Number and percentage of sample according to teaching hours

Teaching hours	Number	Percentage
Below 20	14	4.67
20-25	47	15.67
25-30	70	23.33
30 and above	169	56.33
Total	300	100

Table 6 Number and percentage of sample according to salary

Salary in thousands	Number	Percentage
Below 8	45	15
8-12	140	46.67
12-16	80	26.67
Above 16	35	11.66
Total	300	100

# Job satisfaction of the lower secondary and secondary level mathematics teachers in Kathmandu district of Nepal

**Table 7 Satisfaction level on Age** 

Statement	Mean	SD	Meaning
1. You are happy with your job according to your age	2.79	1.08	Moderate
2.You feel comfortable working in this school	3.02	1.02	Moderate
3. You are proud to be a teacher.	3.24	1.17	Moderate
4. The school has a conducive teaching learning environment.	3.27	1.13	Moderate
5.Pleasant and friendly work atmosphere between you and your superiors	3.24	1.17	Moderate
Average	3.11	1.11	Moderate

Note: 1-1.8 = very unsatisfied, 1.81-2.60 = unsatisfied, 2.61-3.40 = moderate, 3.41-4.20 = satisfied, 4.21-5.00 = very satisfied

**Table 8 Satisfaction level on Gender** 

Statement	Mean	SD	Meaning
1. You have enough support from other teachers of different gender	3.11	1.21	Moderate
2. Positive work atmosphere	3.04	1.06	Moderate
3. Your principal gives you credit when you do a good job.	2.92	1.15	Moderate
4. Your works are duly acknowledged by your supervisor.	2.79	1.17	Moderate
5. Proper relation of staff to work together	3.08	1.15	Moderate

Average	2.99	1.15	Moderate

Note: 1-1.8 = very unsatisfied, 1.81-2.60 = unsatisfied, 2.61-3.40 = moderate, 3.41-4.20 = satisfied, 4.21-5.00 = very satisfied

**Table 9 Satisfaction level on Qualification** 

Statement	Mean	SD	Meaning
You are happy with your job according to your qualification	2.91	1.15	Moderate
2. You are happy with the given responsibility as it gives you opportunity to utilize your knowledge and skill.	2.86	1.13	Moderate
3. You are capable of performing well.	3.31	1.23	Moderate
4. Your income is appropriate to your qualification.	2.39	1.09	Unsatisfied
5. You have more of co-curricular responsibilities with teaching	2.78	0.99	Moderate
6. School provides handbooks, regulation discipline and mandate to facilitate the performance.	2.89	1.08	Moderate
Average	2.86	1.11	Moderate

Note: 1-1.8 = very unsatisfied, 1.81-2.60 = unsatisfied, 2.61-3.40 = moderate, 3.41-4.20 = satisfied, 4.21-5.00 = very satisfied

**Table 10 Satisfaction level on Work** 

Statement	Mean	SD	Meaning
1. You are not overloaded with work	2.82	1.03	Moderate
2. You are happy with the number of teaching periods	2.71	1.09	Moderate

allocated to you			
3. You are usually assigned with important work.	2.9	1.06	Moderate
4. You have enough freedom to make your own decision within the given responsibilities	2.69	1.08	Moderate
5. You are not underpaid in relation to the amount of work that you do.	2.7	1.04	Moderate
Average	2.75	1.06	Moderate

Note: 1-1.8 = very unsatisfied, 1.81-2.60 = unsatisfied, 2.61-3.40 = moderate, 3.41-4.20 = satisfied, 4.21-5.00 = very satisfied

**Table 11 Satisfaction level on Income** 

Statement	Mean	SD	Meaning
Your monthly income is sufficient enough to lead a decent life in the society	2.41	1.06	Unsatisfied
2. You are paid with appropriate wage level for the amount of work	2.6	1.04	Unsatisfied
3. Supervisors have a fair and reasonable justice in staffs promotion and salary.	2.56	1.09	Unsatisfied
4. Current salary amount is suitable for staffs' responsibilities in school	2.49	1.09	Unsatisfied
5. You are satisfied with your salary given from school.	2.17	1.05	Unsatisfied
Average	2.37	1.07	Unsatisfied

Note: 1-1.8 = very unsatisfied, 1.81-2.60 = unsatisfied, 2.61-3.40 = moderate, 3.41-4.20 = satisfied, 4.21-5.00 = very satisfied

# Total numbers of respondents respond in each level of statements

	Satisfaction level				
Statements of job	Not satisfied	Least satisfied	Moderate	satisfied	Very satisfied
Age	46	93	61	77	23
1. You are happy with your job according to your age.					
2. You feel comfortable working in this school.	18	82	92	91	17
3. You are proud to be a teacher.	22	68	69	98	43
4. The school has a conducive teaching learning environment.	21	61	72	107	39
5. Pleasant and friendly work atmosphere between you and your superiors.	24	65	67	104	40
Gender	32	70	68	92	38
1. You have enough support from other teachers of different gender.					
2. Positive work atmosphere.	23	74	93	89	21
3. Your principal gives you credit when you do a good job.	34	85	75	83	23
4. Your works are duly acknowledged by your supervisor.	42	93	77	62	26
5. Proper relation of staff to work together.	29	71	74	98	28
Qualification	34	84	85	69	28
1. You are happy with your job according to your qualification.					
2. You are happy with the given responsibility as it gives you opportunity to utilize your knowledge and skill.	30	101	72	74	23
3. You are capable of performing well.	33	46	65	106	50
4. Your income is appropriate to your qualification.	67	114	63	46	10
5. You have more of co-curricular responsibilities with teaching.	19	116	93	56	16
6. School provides handbooks, regulation discipline and mandate to facilitate the performance.	34	75	94	82	15
Work	23	109	80	75	13
1. You are not overloaded with work.					

2. You are happy with the number of teaching periods allocated to you.	34	119	63	68	16
3. You are usually assigned with important work.	22	99	88	69	22
4. You have enough freedom to make your own decision within the given responsibilities.	37	105	89	50	19
5. You are not underpaid in relation to the amount of work that you do.	40	95	85	74	6
Income	55	113	76	45	11
1. Your monthly income is sufficient enough to lead a decent life in the society.					
2. You are paid with appropriate wage level for the amount of work.	40	114	81	54	11
3. Supervisors have a fair and reasonable justice in staffs promotion and salary.	60	84	91	56	9
4. Current salary amount is suitable for staffs' responsibilities in school.	59	107	73	50	11
5. You are satisfied with your salary given from school.	91	115	56	29	9

# **Research Questionnaire**

Please fill in the following	information in the	space prov	vided.			
Age:years						
Gender: male	female					
Qualification: PCL/HSEB	□ Bachelor's	s degree		master degre	е 🗆	
Years of teaching experien	ces:	Years				
How many teaching hours	do you have per w	eek:		Hou	rs	
Your salary per month in	thousands: below 8	8	-12	12-16	above 16	
The ratings of the statement carefully and "tick" the ap		•	feeling to	wards your	job. Read	
	Very satisfied	=	5			
	Very satisfied Satisfied	=	4			
	Moderate	=	3			
	Least satisfied	=	2			
	Not satisfied		1			

	Satisfaction level				
Statements of job	Not satisfied	Least satisfied	Moderate	satisfied	Very satisfied
Age					
1. You are happy with your job according					
to your age.					
2. You feel comfortable working in this					
school.					
3. You are proud to be a teacher.					
4. The school has a conducive teaching					
learning environment.					
5. Pleasant and friendly work atmosphere					
between you and your superiors.					
Gender					
1. You have enough support from other					
teachers of different gender.					
2. Positive work atmosphere.					

2.37				
3. Your principal gives you credit when				
you do a good job.				
4. Your works are duly acknowledged by				
your supervisor.				
5. Proper relation of staff to work				
together.				
Qualification				
1. You are happy with your job according				
to your qualification.				
2. You are happy with the given				
responsibility as it gives you opportunity				
to utilize your knowledge and skill.				
3. You are capable of performing well.				
4. Your income is appropriate to your				
qualification.				
5. You have more of co-curricular				
responsibilities with teaching.				
6. School provides handbooks, regulation				
discipline and mandate to facilitate the				
performance.				
Work				
1 W d d- d- dd-				
1. You are not overloaded with work.				
2. You are happy with the number of				
teaching periods allocated to you.				
3. You are usually assigned with				
important work.				
4 37 1 1 6 1 4 1				
4. You have enough freedom to make				
your own decision within the given				
responsibilities.				
5. You are not underpaid in relation to the				
amount of work that you do.				
Income				
1 37				
1. Your monthly income is sufficient				
enough to lead a decent life in the society.				
2. You are paid with appropriate wage				
level for the amount of work.				
3. Supervisors have a fair and reasonable				
justice in staffs promotion and salary.				
4. Current salary amount is suitable for				
staffs' responsibilities in school.				
5. You are satisfied with your salary given				
from school.				
		<u>I</u>	I .	

# INTERVIEW GUIDELINES WITH TEACHERS

J	What could be the reason for many mathematics teachers teaching from class five to class ten in Kathmandu are youngsters or the ageless than 30 years.
J	In your opinion, Inside Kathmandu district, the number of male mathematics teachers is more than number of female teachers why?
J	Being man/women, do you feel that, are there any problem while teaching mathematics?
J	More mathematics teachers inside Kathmandu have passed bachelor degree and above but they are still doing teaching even without their interest, what could be the reason?
J	Are you satisfied with your salary given from your school?