

**PROBLEM FACED BY TEACHERS IN TEACHING MATHEMATICS
AT SECONDARY LEVEL
IN ARGHAKHANCHI DISTRICT**

**A
THESIS
BY
PUNA RAM POUDEL**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE
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LETTER OF CERTIFICATE

This is to certify that **Mr. Puna Ram Poudel** a student of academic year 2065/2067 with campus roll no. 1407/065 thesis no 912, exam roll no. 281335 (067) T.U. regd no. 9-2-50-1746-2005 has completed his thesis under my supervision during the period prescribed by the rules and regulations of Tribhuvan University Nepal. The thesis entitled, "**problem Faced by Teacher in Teaching Mathematics at Secondary Level in Arghakhanchi District**" embodies the results of his investigation conducted during the period of 2014 under the Department of Mathematics Education, Central Department of Education, University Campus, Kirtipur, Kathmandu. I recommend and forward that his thesis be submitted for the evaluation for awarding the Degree of Master of Education.

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LETTER OF APPROVAL

A

Thesis

By

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PROBLEM FACED BY TEACHER IN TEACHING MATHEMATICS AT SECONDARY LEVEL IN ARGHAKHACHI DISTRICT has been approved in partial fulfillments of the requirement for the degree of master of Education.

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Puna Ram Poudel

ABSTRACT

The purpose of this study was to identify the problem faced by teacher in teaching mathematics at secondary level of Arghakhanchi district. This study helps to find how the teachers are facing problem in teaching mathematics. The descriptive survey research design was adapted to conduct the study using this method, more items can be asked and more flexible but factual information was gathered. The nature of this study was descriptive and quantitative. To achieve objectives, the researcher reviewed some literatures that were related to the study. The related previous study of research reports and Journal were reviewed. Researcher prepared tools, questionnaire and interviewed schedule for data collection. Forty two secondary school of Arghakhanchi districts were selected and tools were applied to find out the related information.

Collected data/ information were categorized whole data into problem related to classroom management, teaching learning activities, problem related to school administration, problem related to student psychological aspect, problem related to evaluation technique. The information of the above problems was analyzed by cross triangulation among the information sources, class observation, questionnaire and interview. From the study researcher found that there are myriad of problems that cause teacher inefficient and unenthusiastic to execute their duties properly in the classroom. According to teacher, most of problem faced by them are due to individual diversity, lack of proper classroom management, lack of learning psychology, lack of appropriate teaching method and materials, lack of proper evaluation techniques for students.

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Chapter I

INTRODUCTION

Background of the Study

Teaching is a difficult profession. There are many problems for teachers that make the profession more complicated than it has to be. This does not mean that everyone should avoid being a teacher. There are also substantial benefits and rewards for those who decide that they want career in teaching. The truth is that every job has its own unique set of challenges.

Teachers may have to face a lot of distractions in classroom daily. They may have to deal with uninterested students or they may suffer from burden in absence of parents support. But good teachers always remain committed to their profession and try solving these problems. The most common problems faced by teachers in classroom include the young student often should be an ignoring and neglecting behavior as they do not know the importance of education. Such uninterested and unmotivated students cause frustration in teachers and are a real challenge. Teachers can overcome this problem by understanding what their students are interested to teachers can then help their students achieving their goals by encouraging them. Disrespectful behavior from student is also problem teacher usually face. Especially teens of this era show such a behavior to their teachers as they see disrespectful attitudes towards teachers in different movies or shows. If teacher wants to solve these problems, they should involve parent in this matter and encourage them to become involved in their child's educational issues.

Teachers also complain about lack of parental co-operation and guidance with them. A student can become successful only when parents support his teachers. But in fact, parents stand attacking teacher when they, hear complain, from their kid against teacher. One of the toughest competitors of teachers in classroom is the cell phone vibration and ringing bell and students testing their peers cause distraction. Although cell phones are, strictly prohibited in classroom, some students still bring them regardless of the consequence.

Technology has become an essential part of education so classroom today are equipped with computers. Computers are provided to students to get help and knowledge online and make assignments. But some students start misusing for personal purposes. Sleep deprived and lethargic students are quite irritating for teachers. Such students find it difficult

to concentrate on lecture and appear bored. Teachers are sometimes afraid to discipline a student because of risk of lawsuit if they fail to handle situation correctly.

Teacher has great responsibility and to meet this responsibility, teachers need support and help. Parents and school administration should communicate properly with teachers for betterment of students and class discipline. Mathematics, which created with human needs, is going ahead along with human civilization. Every community's needs mathematics especially if we consider mathematics as a unique art and science that enables man to cope with the complexity of economic, social, and technical problem of our world.

The term "mathematics "has been interpreted and explained in various ways. According to oxford Advanced Learners Dictionary" Mathematics is the science of number and space: Mathematics is a sources as well as effective/beautiful food for earning the life smoothly and worth fully in a systematic way. If we try to list the definitions of mathematics, the work will be never ended.

The history of mathematics education reflects that contemporary society has contributed today's situation in the field of mathematics. It was developed to meet the need of then contemporary society. The social history of mathematics education differs in different countries of the world. Different societies developed mathematics of their own in the view of constructivism "mathematical knowledge is created by students as they reflect on their physical and mental actions. By observing relationships, identifying patter and making abstraction and generalizations students come to integrate new knowledge into their existing mathematical schemas."

Mathematics had a different place within the structure of the educational world from now days. It was more of a resource, which the society tapped as the need, arose for the society, and within the limits of what was location ally and financially feasible. How mathematics has at various times been seen as crucial or otherwise, in training the next generation is at the heart of the social history of mathematics education. Teachers of mathematics should create awareness to the mathematics learning of today the need to understand what they are being fitted for and why.

A number of effort made to reform the mathematics curriculum and a failure in the implementation of curriculum in the real classroom situation has enhanced interest in and reflection of history of mathematics education the failure show that the protagonists' good

will for reform is not sufficient to effect change and that there are deep and more persistent structure due to the social function of knowledge.

According to encyclopedia mathematics education has been accepted as a components of formal education from ancient period and it occupies a well established position in the school curriculum of all countries."

Mathematics is an organized body of knowledge in which each proposition follows as a logical consequence of proved proposition or assumptions. Such mathematical structure is characterized by undefined terms, assumptions and rules of logic.

In Nepal mathematics has been taught as one of the main subject in school level curriculum since the beginning on modern school education. Mathematics has been given a significant place in the Nepalese school level curriculum since the implementation of National Education System Plan (NESP, 1976). NESP curriculum 2028 B.S. explains about the importance of mathematics in school education as follows.

[A well grounded understanding of mathematics is essential for everyday. Life as well as higher study in the field of science and technology. Mathematics, like language is a basic goal of communication involve the frequent use of mathematical concept that is the quit natural that mathematics be given a very important place, second to language in school education, students apply mathematical concept, skill and logical reasoning to solve different kinds of problems not only a student's but also a adults later on.]

The National Education System Plan (NESP) was introduced in Nepal in 1971. It has aimed at raising the level of school education, inclusion of the sense of national identify, expansion of education opportunities and presentation of trained manpower for national development.

In order to make teaching effective at secondary levels, curriculum Development Centers has made several ultimate at revising school curriculum producing teacher guides and teaching units, besides training teacher after the introduction of National Education has not improved in the desired direction.

This study was focused on the problems faced by teacher in teaching mathematics at the secondary level. Furthermore it has also alternated to measure the attitudes of teachers towards mathematics teaching.

Most of the mathematics teachers in Nepal are still facing many problems in teaching secondary level mathematics. The main purpose of the teaching of mathematics is to develop the understanding reasoning and analyzing powers which are necessary to various aspect of human civilization and development so for the formal teaching of mathematics in Nepal is concerned. In this study the researcher was focus to find problem related to classroom management, evaluation technique, school administration, psychological background of student, use of effective teaching learning activities.

Statement of the Problem

This study was mainly concerned with the problem face by teacher teaching mathematics. Some of the researcher had done to study the problem faced by teaching mathematics. Comparatively, mathematics is hard subject in both students and teachers views. Everyone easily blame to the teacher when students do not pass in the final examination. It is not only the causes of teacher; there are many influencing factors in the school education which is compulsory in the teaching learning process. For example the class room facility, the number of students in the class , teaching materials and methods, school administration, evaluation technique, instructional activities, background of students and teacher community support, political influences etc. So, the researcher tried to identify the actual information behind the mathematics teaching in school at secondary level. The attitudes of teacher and students towards mathematics certainly influence the student's achievement. So, finding the problems of teacher in teaching mathematics is the major statement of this study. Similarly, understanding the influencing factors and attitudes are the area of the study. The researcher questions of this research work are stated as follows:

-) What are the current problems faced by teacher in teaching mathematics at secondary level?
-) Identify the possible ways to minimize these problems.

Signification of the Study

Mathematics is taught as an essentials and important part of school curriculum. It is well accepted fact that optimum and meaningful mathematics learning takes place when teacher are instructed. Mathematics has been taught as compulsory subject at all level of school education. It is believed that most of the students have low achievement. Results of all level students show that students are weak in mathematics; it proves that teaching is more

difficult and challenging. Although, mathematics has been given an important place in the curriculum at all levels of school education. However, it is felt that most students are afraid of it. The result of SLC examination also shows that most failures were in mathematics. Students do not practice more and they do not pay their school levels program also show that the failure rate is high in mathematics. One of the most facts of this reason may be problems of teachers and students take mathematics as difficult, abstract and boring subjects. The present study entitled as "problem face by teacher in teaching mathematics at secondary level" has following significances:

-) This study would help to find how the teachers are facing problems in teaching mathematics.
-) It would help to generalize the attitude of the teacher about teaching mathematics.
-) It would be helpful to teachers to prepare and implement instructional strategies.
-) It would be helpful to teachers to manage classroom while teaching.
-) It would be helpful to provide information to concern agencies to reform and improve the mathematics teaching at secondary level.

Objectives of the Study

The main objective of this study was to document the current problem faced by the secondary level mathematics teacher in Arghakhanchi districts and structure in mathematics class and implementation of mathematics curriculum.

Especially it can be stated in general term as:

-) To identify and analyze the problem faced by teachers and students in mathematics class at secondary level.
-) To identify causes of the problems which are occurring in teaching mathematics.
-) To suggest some measures for the solutions of the problems.

Delimitation of the Study

This study was limited in the following aspect:

-) This study was limited to only forty two secondary schools of Arghakhanchi District.
-) This study was limited to the problems of mathematics teacher in teaching at secondary level.
-) This study was base on sample of forty two secondary schools including forty two mathematics teachers and observes one mathematics class of each school.
-) This study was concern only with current learning problem in mathematics class.
-) This study was including public school of Arghakhanchi district.
-) This study was conduct only for the subject of mathematics.
-) The data of this study was generated through the questionnaire and observation form.

Operational Definition of the Related Terms

Evaluation Techniques: The evaluation technique totally depends upon questionnaire and class observation includes the qualitative and quantitative descriptions of public's behavior plus value.

Problem: problem is a thing that is difficult to deal with or to understand questions to be answered or solved specially by reasoning or calculation. In this study, problem are related to classroom management, teaching strategies, psychological background of student evaluation technique, school administration, which are faced by teacher in teaching secondary level school at Arghakhanchi district.

Public School: It refers to the schools controlled and financed by the government of Nepal.

Physical Facilities: Physical facilities includes different aspects like furniture, size of class, location of school, play ground, playing materials, teaching materials like wise arrangement, seating patterns are also including in the physical facilities.

Rural Areas: Area of the Arghakhanchi district, which are far from headquarter which has no was facilities in such area like lack of electricity, communication, transportation and hospitals etc.

Supervisor: Authorized person from district education office evaluating and supervision schools activities and a giving counseling to teachers as well as headmaster is formed as supervisor.

Teaching Problem: Teaching problem is obstruction of teaching or situation in which a teacher felt difficulty. For example lack of textbook, material, level of students physical facilities insufficient of teaching materials etc.

Chapter II

REVIEW OF RELATED LITERATURE

Review of related literature is an important part of research for the researcher because related literature helps and guides researcher to meet the motto of the study. It is essential to compare the study which provides strong knowledge about the related topic number of books, research report, papers and other booklets can be found that concerned with curriculum teaching materials, methods and so on. It is important and necessary for a researcher to study what has already done and to know what is to be done in the area under study. Reviewing related literature help researchers to limit their research question and to clarify and define the frontiers of their field. Through studying related literature, the researcher learns which methodologies have proven useful and which seems less promising. The review of literature helps to establish theoretical framework for the problem and significance of the research.

The researcher has attempted to find the literature related to problems faced by teacher in teaching mathematics. That would help correct the conceptual framework and achieve the objectives of this study. This chapter deals with the theoretical review and empirical review about facing problem by teacher in teaching mathematics. The researcher has reviewed some related literature as follow:

About the aspects of the teaching Bhatia and Bhatia (1986 AD) said "Teaching is establishing a harmonious relationship between teacher, pupil and subject.

"Effective mathematics teaching requires understanding what students know and need to learn and the challenging and supporting them to learn" (Upadhyay, 2061).

The NESP emphasized to raise the quality of teaching for the better quality of school education. Furthermore, this plan suggested using instrumental materials for effective teaching.

Acharya P. (2006) conducted a thesis entitled "a study on the problem faced by higher secondary school teacher in teaching mathematics of grade nine "it was descriptive survey and questionnaires were used for data collation. Fifteen higher secondary school of Kathmandu districts were choosing for this study. His main objectives of the study were to

identify the problems faced by higher secondary school mathematics teachers and compare the problems faced by trained and untrained teachers. He concluded that prescribed curriculum and existing text book were not well planned, sequential and practical problem were not well managed on the part of trained and untrained teachers. it was found that both were facing similar kind of problems in Kathmandu.

Karki S. (2011) conducted thesis entitled "problems faced by teacher in teaching mathematics at secondary level, in Lamjung district "descriptive survey method was adopted to conduct the study and open questionnaires, classroom observation and interview schedule were used for data collection. The main objectives of this study was to analyze problems faced by secondary school mathematics teacher in teaching mathematics in the respect of different factors such as classroom teaching ,physical facilities, curriculum faced by rural school and urban school teaches. He concluded that teachers were facing many problems related to the curriculum, text book and various characteristics background of students, classroom management and educational administration.

Bhatt N.D. (2013) conducted thesis entitled "problem faced by teacher in teaching mathematics at secondary level in knchanpur district descriptive survey method was adapted to conduct the study and open questionnaires, classroom observation and interview schedule were used for data collection. For forty secondary mathematics teachers from Kanchanpur district were selected with one teacher from each school by method of stratified random sampling. He concludes that teacher was facing many problems related to the hater opinions classroom management, content, school administration, teaching materials etc.

Sapkata P. (2008) conducted a thesis on "problems faced by students in mathematics learning and its impact in the examination". The main objectives of his study were intendment to list the problems faced by the students in mathematics learning and district level examination of mathematics, cause of problems faced by the students in mathematics ,cause of problems faced by the students in mathematics learning and the way of minimizing problems of students in mathematics learning and examinations. His study was concerned in Rupandehi district. He conclude that there are many problems facing by students in mathematics learning,. The teacher, parents and school administration are silent towards the problem of the students in their mathematics learning.

Lamichhane H. (2001) did a survey type research on "A study of problem faced by the secondary level mathematics teacher in teaching mathematics" in Kaski districts. He

conducted that several problems purposed up in the eyes of teaching such as inadequacies of textbooks and teacher guide, lack of instructional materials and teacher training, lack of supervisory help, lack of physical facilities etc. Further he concluded that the lack of motivation to learn mathematics is poor on the part of students.

Thapa P.K (2005) conducted a thesis entitled "A study on problem faced by teacher in teaching mathematics at primary level". She conducted that teacher are facing many problems due to large class size irrelevancy of teacher guide, lack of instructional material, lack of supervision help and so on.

Paudel B. (2007) conducted a thesis "A study on problems faced by teachers in teaching geometry at lower secondary level". He conducted that teachers are facing many problems due to lack of training, crowded number of students, lack of proper teaching materials, and lack of math laboratory, poor evaluation process, and time factor and so on.

Paudel R.P. (2011) conducted his thesis teacher are facing many problems due to lack of training, crowded number of students, lack of proper teaching materials. Lack of math lab facility, poor evaluation process, time factor, urban oriented curriculum is burning problems of the teacher in teaching mathematics in secondary level.

According to: Hess teacher may face some problems in the classroom as follow;

-) Teachers find it difficult to teach by the same kinds of materials to all students. It is difficult to find all appropriate teaching techniques and materials for each individual.
-) It is not easy to determine individual needs of every student.
-) Students of low level may feel threatened left out and frustrated as a result they may lose their self. Esteem while students of high level may feel bored.
-) It is challenging for teachers to select the task for each individual as their proficiency level and ensuring the equal participation of all types of students.
-) It is problem for a teacher to keep all the students interested in the classroom.
-) Teacher may face problem in devising differentiated task and providing students with different materials.
-) It is difficult to manage time and give attention equally to all students since there are too many differences to be taken into consideration.

-) Teacher themselves are the main cause of problem by expecting students to learn the some things at same time.
-) There is often a feeling amongst teachers that they are working with in appropriate content, frequently because an author has targeted an age or social-economic groups that does not reflect their learner's experiences and aspirations. Methodology is also often perceived as a problem.
-) Another problem in mathematics teaching that which content is suitable for all and which content in demanding the modern society.
-) Some of the students are advanced and also their interest in the class and some of them hardly know the context.

In study "secondary education in Nepal" by CERID, it is remarked "Secondary school in Nepal" suffers from serious constraints of physical facilities most school buildings are in need of repair and many of them are unsuitable for instructional purposes. Lack of classroom adequate, lack of teaching aids, lack of laboratory facilities are either not existent or are in very poor shape textbooks are often the only source of instruction.

After studying over all literature researcher has found that few research has been done on the problems faced by secondary level mathematics teacher in Arghakhanchi district. Therefore this study will focused to find out the reasons of different problems of teacher in teaching learning fields in mathematics on secondary level school in Arghakhanchi district.

Theoretical Literature

Theories which can be used for the analysis and interpretation of the data are classical conditioning, operant conditioning, trial and error, social theory of learning, cultural law theory, cultural difference/discontinuity theory etc. To be able to plan how to teach mathematics effectively, there need to be some understanding of how students learn mathematics teacher, belief and understanding of the mathematics and pedagogical; purpose behind particular classroom practices seems to be more important than the forms of practices themselves it is both the ways in which teachers use particular practices in the classroom but the beliefs they held towards their teaching approaches that are critical. The role of the theory in under pinning practice is an essential element of quality teaching in mathematics .By

having an idea of how students learn, teachers are better able to plan for and anticipate in particular ways, and to create learning environments to facilitate better learning.

Some of the theories the researcher review related to the research topic and relevant to the study are summarized as follow:

Ausubel's Theory of Meaningful Learning

Ausubel has developed a theory of meaningful verbal learning that contains a rationale of expository teaching and shown how lecture type session can made more meaningful in any discipline. According to him if a student has positive attitude to learn certain task, he/she is likely to learn the task in meaningful way. Therefore for meaningful learning the learner should employ positive learning set and the material they learn should be meaningful to them the same type of learning may be rote or meaning full depending entirely on the process (Bell, 1978).

Ausubel regards each academic discipline as having a distinct organizational and methodological structure and each individual as having a distinct cognitive structure he conceptualizes the information- processing structure of the mind as analogous. Both a discipline such a mathematics and a human mind contain a hierarchical structure of ideas in which the most inclusive ideas are at the top of the structure and subsume progressively less inclusive and more highly differentiated sub- ideas. Since each discipline has its own an interdisciplinary approach, rather, each subject should be taught separately. He regards the structures the most important part of discipline, and combining the teaching of two discipline will cause the unique structure of each one to be obscured from the learner. Since geometry, algebra and analysis have different structure it is doubtful that Ausubel would approve of unified mathematics programs.

Since, as Ausubel believes, the major job of education is to teach the discipline two conditions must be satisfied. First, the discipline must be presented to students so that the structure of the discipline is stabilized within each student's cognitive configuration and not absorbed and obliterated as a unique structure. The hierarchical organization of ideas within each discipline is extremely powerful and that the learner can make maximal use of these ideas by having them stabilized within his structure, rather than integrating them with his old ideas and making new kind of structures

The second condition in teaching a discipline is to make the material meaningful to the learner, to ensure meaningful learning the teacher must help students build linkage between their own cognitive structure and the structure of the discipline being taught. Each new concept and principle within the discipline must be related to relevant, previously known concepts and principles which are in learner's cognitive structure. Ausubel has developed two principles for presenting content in a subject field a progressive differentiation, and integrative reconciliation. When subject matter is programmed in accordance with the principles of progressive differentiation, the most general and inclusive ideas of the discipline are presented first, and are then progressively differentiated in terms of details and specificity. The assumption is that an individual's organization of the content of a particular subject matter discipline in his own mind consists of hierarchical structure in which the most inclusive concepts occupy a position at the apex of the structure and subsume progressively less inclusive and more highly differentiated sub-concepts and factual data.

The integrative reconciliation principles imply that new information about the discipline being studied should be reconciled and integrated with previously learned information from the discipline being studied should be reconciled and integrated with previously learned information from the discipline. The teaching learning sequence should be structured so that each new lesson is carefully related to previously learned materials. New learning in a discipline should be related to and built upon previous learning. It should be noted that although Ausubel says that each part of the discipline should be integrated with other parts, he does not support each integrating the structures of various disciplines, thus obscuring the unique structure of each discipline.

Constructivism Theory in the Learning Mathematics

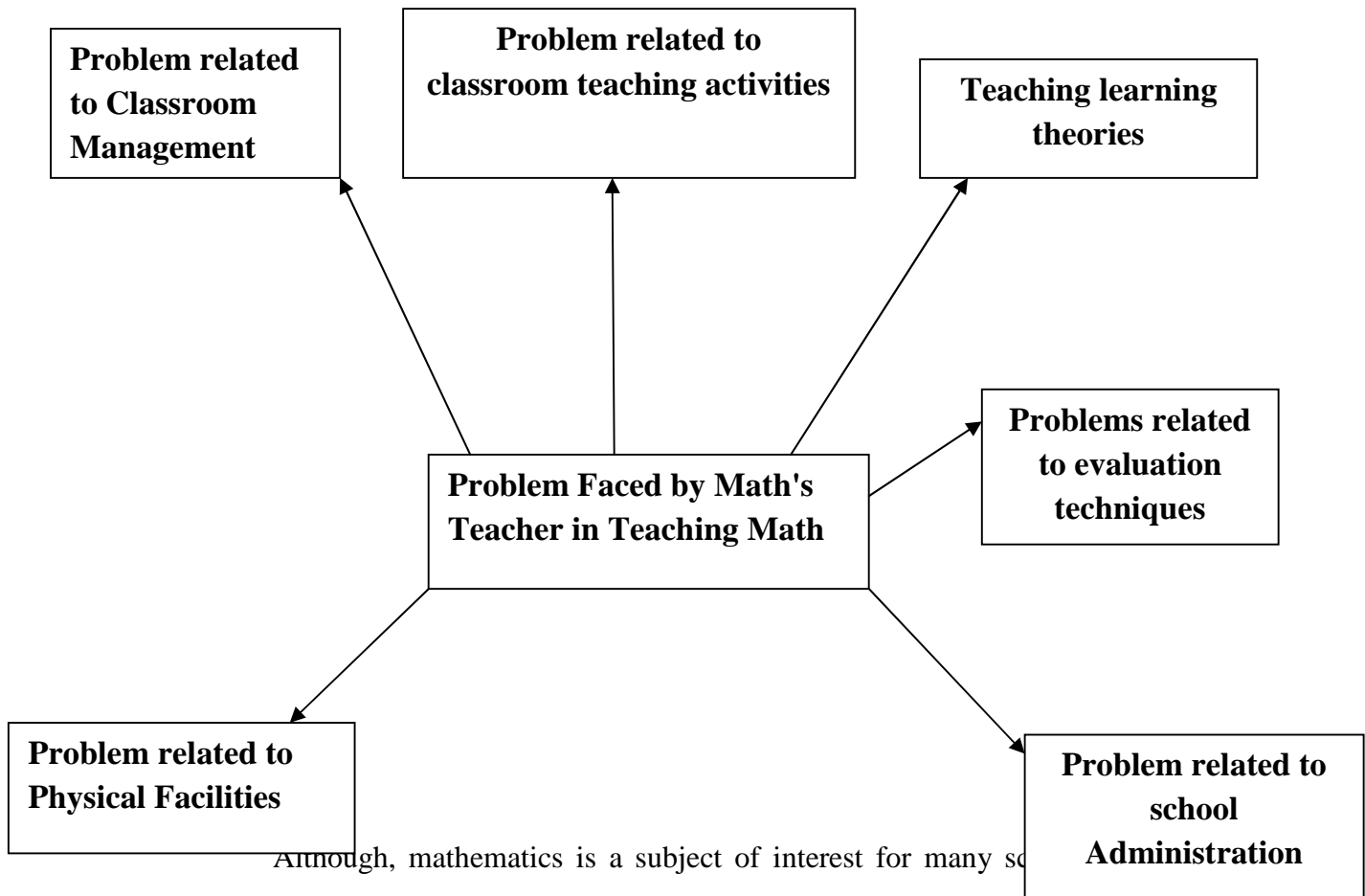
Mathematical knowledge is created by students as they reflect on their physical and mental actions. By observing relationships identifying patterns and making abstractions and generalizations. Students come to integrate new knowledge into their existing mathematical schemas.

Conceptual Framework for this Study

The problem faced by mathematics teacher in teaching mathematics in Arghkhanchi district. This study mainly based upon the teaching mathematics in secondary level teacher.

From the study of related literature above, the researcher made the frame work for this study, so the following framework sketch in drawn.

Figure no 2.1 A conceptual framework of problem on mathematics teaching



Although, mathematics is a subject of interest for many students, it is often considered a difficult subject to teach and learn. We should struggle with various problems to overcome through the problem. Learning mathematics means getting ability to solve problem, various techniques appeared and disappeared to handle the problem at time to time but no one is complete. The major factors related to classroom management are physical environment of the classroom, class size, teacher student relationship etc. The school administration had the major role of maintaining good learning environment by providing good physical resources, organizational discipline and solving the casual problems which can affect the learning process. The mathematic contents stands are number and algebra, measurement and geometry, and statistics and probability. Different student may have come from different environment and with different background. If any students have strong background he can learn many things easily compared to the student with low background.

Chapter III

METHOD AND PROCEDURES

This chapter deals with the way to solve the research problem systematically. This chapter describes the design of the plans and procedures of the study, which was carried out to achieve of the objectives of the study. Research methodology presents the logistics of study because it determines how the research becomes complete and systematic. The research design was survey analytical descriptive and comparative in nature. The major procedure followed in this study was as follows:

-) Research design
-) Nature and sources of data
-) Population of the study
-) Sample of the study
-) Instruments/tool
-) Data analysis procedure

Research Design

This study was concern with the study of problem faced by teachers and students in mathematics class at secondary level. The nature of study was descriptive. The descriptive research includes studies that provide simple information about the research problem. The design of this study was descriptive survey types. Using these methods more items could be asked and more flexible but factual information was gathered. The survey was a research technique in which data were gathered by asking questions of a group of respondents.

Nature on Source of Data

Having decided about the objective and scope of research researcher had to find the sources of information. There were two sources of data namely, primary and secondary. The study was mainly up on the primary data. For purpose of these studies the researcher used primary data which were collected from the individual respondents directly by the researcher himself participated in the researcher area, with the questionnaire and interview schedule. After explaining the purpose of visit the researcher in his presence, requested administration

and every teacher of each school which were selected for sample to fill the questionnaire honestly as instructions given. The study was mainly based upon the primary data. The nature of the data was quantitative as well as qualitative. Quantitative data were used while collecting teacher's responses as the answer of questions involved in the questionnaire and for the open ended questions qualitative data was used.

Population of the Study

A population is the totally of objects under consideration it refers not alone to persons but physical object and operations as well. For this study the population of this study consist all mathematics teachers who teach mathematics in secondary level of Arghakhanchi district.

Sample of the Study

A sample in a researcher study refers to any group which information is obtained the sampling techniques are used in almost every phases of research. Sampling is the science and art of controlling and measuring reliability of useful statically information through the theory of probability". For this study forty-two secondary schools from Arghakhanchi district were selected with one teacher for each school by the methods of purposive sampling techniques. This was qualitative inquiry so that the sample size in this study was not fixed. So the sample size of this inquiry depends on the researcher what she/he want to know, what the purpose of inquiry way. the purposive sampling , personal knowledge and opinions of the researcher are used to identify those items from the population that are to be included in the sample .A sample selected buy purposive sampling is based on researcher's expertise about the population.

Instruments/Tools

By nature this research study made use of questionnaire and class observation as a tool of instruments of the study. The questionnaire was developed by the research himself with the help of supervisor. It included items related to various problems which faced by secondary level mathematics teacher.

The areas of problems were related to classroom management, Physical facilities, teaching learning activities, teaching material method and evaluation, student mathematical background. At the end of the each section of questionnaire the respondents were requested to comment on the areas that are not covered by the items in the questionnaire.

Observation is also an important tool for data collection so the researcher applied this tool for data collection to find out situation of using instructional plan in problem faced by mathematics teacher at secondary level. Observation was done for mathematics teacher.

The interview schedule was used for the qualitative information for teacher was interview for this purpose. The open ended questions were asked to them with the help of interview guideline lines that was developed by the researcher himself with the help of supervisor.

Data Collection Procedure

In this process of the data collection, the researcher visited each of the sample school along with the questionnaire, observation form, and interview schedule and request letter from T.U. to render any help needed to the researcher from the school administrative. After explaining the purpose of the visit, the researcher, in his presence, requested each of the teachers of the school, include in the sample to fill questionnaire honestly. The researcher explained any confusion that arose in understanding the statements. The researcher also observes forty two class activities and observation was record with the help of observation form.

Scoring Procedure

For the analysis of items, weightage of 5, 4, 3, 2 and 1 assigned to statement and state "strongly agree, agree, undecided, disagree, strongly disagree" respectively. For the statement opposing to this point of view, the item had taken in the opposite order. Mean weightage was calculated, total score of five point Likert scale is 15, thus its average score is 3. If the calculated index is greater than three then it concluded that the statement was in strong favor to the problems if the index measure is less than or equal to three, then it is weak favor to the problems.

Data Analysis Procedure

The obtained data were analyzed and interpreted with the help of following statistical techniques.

Mean weightage is used to locate the central position of the responses to the statements of the teacher as a while in the rating scale. The average mean weightage had calculated as follows:

$$\text{Mean weightage} = \frac{\text{Total rank score of a statement}}{\text{No of teacher's response}}$$

Each statement was being studied in terms of whether the teacher problems were up to the index or not. If the calculated mean weightage is greater than three then it concludes that the statement indicates the problems and it is strongly favorable to it. If the mean weightage is less than or equal to three then it is less favorable to the problems.

Analysis of Classroom Observation and Interview

For analysis of the classroom observation weight ages of 5, 4, 3, 2, and 1 is assigned to statement if it is state excellent, good fair, poor and very poor respectively. Then the mean weight age was calculated, if the calculated index is greater than 3 then it is concluded that the statement implies least problem. if the index measure is less than or equal to 3 it is not problem.

Interview is another effective and popular technique of collecting data is well established, practicable and reliable method of data collection. In this study, the researcher used interview because these tend to be factually oriented, aimed at specific information and relatively brief.

The collected data through class observation and interview schedule were analyzed and interpreted on the basis of the framework that the researcher had already developed in the review of the related literature section. The researcher was tried to interconnect with previous findings and the way of analysis in the similar context.

Chapter IV

ANALYSIS AND INTERPRETATION OF DATA

The chapter deals with the analysis and interpretation of the collected data. The researcher collected qualitative data from the respondent. The researcher observed carefully and recorded each and every notable activity of student and teachers. The data were collected for the study forty two secondary school from Arghakhanchi district. The collected data were tabulated and analyzed according to the objectives of the study. The tabulated data were statistically analyzed and interpreted by using statistical tools mean weight age. These data were calculated and categorized.

The researcher used class observation form (appendix F) to observe the classes regularity for one days in each sample school and the classroom behavior was carefully observed by different outlook of setting and noted. With the help of semi-structured interview schedule the interview were taken with teacher. The interaction with the respondents was categorized according to their category and the different themes were given in the text of interview or the observation note. These themes were considered as a code and the similar code version of respondents were collected together and were explained in their perspective.

The whole data were categorized into six groups. These were classroom management, evaluation technique, teaching learning activities, school administration, students various background characteristics, classroom observation, thus the collected information were analyzed and discussed under the fallowing topic.

-) Problem related classroom management
-) Problem related to teaching learning activities.
-) Problem related school administration,
-) Problem related student's backgrounds and psychological aspects.
-) Problem related to evaluation technique,

Problem related classroom management

The classroom is the major sources of knowledge in formal education system in our country both teachers and students depend upon bookies knowledge which is used to experience in the classroom not only mathematics, all teaching learning process are carried out from indoor /closed environment , this is the characteristics of Nepalese education system.

To manage classroom physically, to create suitable environment for teaching learning activities and manage students activities systematically in classroom management in modern belief teachers duty is managing classroom to convey knowledge and content motive whatever she/ he has to teach. Hence following three things are important while managing classroom-application of instructional materials in the classroom, appropriate space to put an instructional material and to manage the relationship between students and instructional materials.

-) Combination of infrastructure like proper air, light in the classroom, enough space to move for teacher and sufficient benches and desks to sit.
-) Proper spice to participate the learners in different activities like group work and pair work.

For the effective mathematics teaching, the classroom environment should be maintained as the size of classroom according to number of student's physical facilities etc. Now the researcher tried to elaborate the following problem in detail related to classroom managements.

Table No. 4.1

Classroom observations form problem related to physical facilities

S. No	Statement	Mean weight	Remark
1	The mathematics classroom is crowded.	3.52	Yes
2	Physical facility is adequate.	3.57	Yes
3	There is a lack of proper space to demonstrate instructional materials.	3.95	Yes
4	There is lack of mathematics laboratory.	4.57	Yes

From the table 4.1, the respondents were given a statement 1, which was related to the crowded number of students. The responses obtained from informant were 33.33 percent of total respondent strongly agree, 23.28 percent marked agree, 14.28 percent marked undefined, 19.09 percent mark disagree, 9.52 percent strongly disagree, in this statement which indicate that problem. The above statement mean weightage 3.52, show that there was a problem so many students in class difficult to manage and crowded classes are not effective for teaching.

The second statement was focused on the problem of physical facility of school the sample school was not facilities as the requirement of the educational environment. There was only single room for each class means no other facilities found in the school. There were no other facilities which help them to learn more in proper environment. Although, students were interested in learning new mathematics problem solve. There must be sufficient physical facilities that support them learning effectively in school. The responses obtained from informant were 19.04 percent of total respondent strongly agree, 33.33 percent marked agree, 19.04 percent marked undefined, 23.80 percent mark disagree, 14.28 percent strongly disagree, in this statement which indicate that problem. The mean weightage of physical problem of school was 3.57. So the major problem in physical, development. The congested room lack of sufficient furniture, extra room, play ground and audio /video room were the physical problem in school.

The third statement, the responses obtained from informant were 38.09 percent of total respondent strongly agree, 33.33 percent marked agree, 14.28 percent marked undefined, 14.28 percent mark disagree, 14.28 percent strongly disagree, in this statement

which indicate that problem. The mean weightage was 3.95 indicates that is problem. Lack of proper space to demonstrate instructional material created problems to the teacher.

On the forth statement, the responses obtained from informant were 71.42percent of total respondent strongly agree, 14.28 percent marked agree, 14.28 percent marked undefined, none of them disagree and strongly disagree, in this statement which indicate that problem. About the mathematics laboratory, majority of the teacher agreed that there is no facility of mathematics laboratory, the mean weightage response value 4.57, indicates that it is a problem.

In sum, researcher concluded that lack of classroom management creates many problems it teaching learning process in mathematics such as small size of classroom, huge number of students and lack of proper space to demonstrate teaching materials.

In this regard, teachers have problem to control the classroom. Their maximum effort was to control the class. It was being difficult to promote individual student who need to teachers support .the teacher respondents as

"It is difficult to handle the class due to large no of students' .more than fifty percentages of boys and girls talk each other while teaching; boy teases the girls from the back side which disturb the whole class. Such activities were also fund in the classroom and create unnecessary tension in the class room".

(Teacher view)

Problem related to teaching learning activities

Teaching methods and instructional strategies are main ways for meaningful teaching and learning of particular topic. Teaching and learning are interrelated to each other if both of them have good combination then entire learning and teaching will be effective. For this propose teacher has to teach effectively by using different method with the help of different teaching materials and students have to the attention to learn.

Teacher is the main character of the instructional strategies. In the classroom, activities teacher and student have vital role in teaching and use of method should be based on knowledge, understanding, skill and application.

Table No. 4.2**Problem related to teaching learning strategy**

S.N.	Statement	Mean weight	Remark
5	There is problem of using daily lesson plan in every topic.	3.23	Yes
6	There is a problem of using instructional materials for every topic.	3.66	Yes
7	The problem solving method is sufficient to teach mathematics.	3.09	Yes
8	Confused which method is used in which lesson or unit.	2.09	No
9	Lack of training modern technology and new methods of teaching.	3.47	Yes
10	It is difficult to complete whole course by student centered teaching approach.	3.61	Yes
11	Lack of knowledge about psychology of the children.	2.61	No
12	Problem in teaching mathematical new concepts, relations and skills.	3.33	Yes
13	Difficulty in motivation students due to passiveness on reasoning and creative thinking.	3.52	Yes

The respondents were requested to show their response on the statement 5, to whether the teaching mathematics by using lesson plans. The responses obtained from informants 56.66, percents of the respondents do not make daily lesson plan and 33.33 percent of the teacher claimed that they make daily lesson plan. The mean weightage 3.2 indicates that is a problem.

This statement 6, helps to light upon the teacher's responses whether the teaching by uses materials for every lesson. The responses obtained from the respondents were, 33.33 percent total respondents strongly agree, 28.57 percent of them agree, 19.04percent of total undecided.9.52 percent marked disagree, and 9.52 percent strongly disagree. The mean weightage of this statement was 3.66 which indicate it is problem so it concluded that mathematics teacher weren't teaching by using related materials for each lesson.

The statement 7, the respondent were requested to show their response were 23.80 percent of total marked strongly agree, 19.04 percent marked agree, 14.28 marked undecided, 28 mark disagree and 14.28 mark strongly disagree, the mean weightage score was 3.09 indicate it is problem. So it concluded that the problem solving methods in not sufficient to each mathematics lesson.

The respondents were requested to show their responses on the statement 8, to use instructional method for every topic the responses obtained from informants were 14.28 percent of total respondents strongly agree, 19.04 percent marked agree, 23.8 marked undecided, 28.57 percent marked disagree and 14.28percent marked strongly disagree in this statement mean weightage score was 2.09 indicate it is not problem.

This statement 9, helps to light upon the teachers to provide new knowledge methods. The responses obtained from respondents were 33.33 percent marked strongly agree and 19.04 percentage marked agree. The mean weighted was 3.47 it show that lack of training, workshop and other thing to providing knowledge is problem for today mathematics teacher.

The respondents were requested to show their responses on the statement 10, to whether they faced difficulty in math teaching by student centered method. The responses obtained from informants were, 38.09 percent of total respondents strongly agree, 23.80 percent marked agree, 23.80 percent of total respondents agree ,9.52 percent marks undecided, 23.80 percent marked disagree,4.76 percent strongly disagree in this statement. The mean weightage score of this statement was 3.61 which indicator that it is problem so it concluded that if mathematics of secondary level teachers by student centered method we cannot finish in time.

The statement 11, under this topic aims to find knowledge of pedagogy and psychology of children. The responses obtained from respondents were 9.57 percentage marked strongly agree, 19.04 percent marked agree, 19.04 percentage marked undecided, 38.57 percent marked disagree and 23.80 percent strongly disagree. The mean weightage was 2.61 which indicate that it is not problematic. So it is concluded that teacher familiar with the psychology children.

This statement 12, is helpful to flesh upon the teachers responses about difficulties in teaching new concept in mathematics. The respondents obtained from informants were, 14.28 percent of total respondents strongly agree, 23.80 percentages of them agree, 42.85 percent

mark undecided, 19.04 percentages of total respondents disagree, and none of them strongly disagree in this statement. The mean weightage score of this statement was 3.33 which imply that it is problem. It shows that teachers are confused in new concept and relation to provide students.

The respondent was requested to show their responses on the statement 13, to motivating the students. The responses obtained from the respondents were. 33.33 percentages of total respondent's strongly agreed, 23.80 percent marked agree, 14.28 percent marked undecided, 19.04 percent marked disagree and 9.52 percent strongly disagree, in this statement. The mean weightage was 3.52 which indicated of is problem, so it concluded that teacher are unable to motivate students in their subject matter.

The questionnaire distributed to the teacher contained nine statements related to pedagogy. After summarizing the questionnaire the researcher came to know that the entire teacher was facing the problem to the above statements. Beside this , some problems were strongly faced problem the researcher carried in-depth study by using interview was administer not to get detail information only but to get opinion of teachers on teacher problem.

In the modern period many teachers are well trained but some of the teachers do not have professional development training, in service training yet. As an above result they don't use pedagogical knowledge. Because of this situation teachers do not have sufficient knowledge as well about how to use which teaching material and teaching methods in particular lesson keeping students interest as result it is problematic in teaching and learning mathematics.

(Teacher view)

Problem related to school administration

Administration plays a vital role to effective teaching but if it seems to be positive and in irresponsible then teacher may face problems mainly on teaching learning process. If the administration of a school is good then all thing in school are systematic such as classroom, management, discipline of the students, construct instructional material. The teacher were provided with a set of questions .then item wise analysis and interpretation of the data obtained from teachers in presented below.

Table No. 4.3

Problem related to secondary school administration

S.N.	Statement	Mean weight	Remark
14	Lack of award for good performance.	3.71	Yes
15	Lack of coordination among the co –workers and administration.	3.09	Yes
16	Problem of teacher involve in curriculum planning.	3.23	Yes
17	Lack of opportunity of refreshment training to each difficult and rigor topics.	3.23	Yes
18	Unavailable of mathematics curriculum, teacher guide and new book.	3.76	Yes

From table 4.3, about the statement 14, data show that the mean weightage is 3.71, which has a problem for the good performance. The responses obtained from informant were 9.57 percent of total respondent strongly agree, 19.04 percent marked agree, 23.80 percent marked undefined, 28.57 percent mark disagree, 19.04 percent strongly disagree, in this statement The statement 15 is related to co- ordination among the co-worker and administration. The mean weightage score on the statement was 3.09, which significance the problem. in this topic respondent responses informant were 19.04 percent of total respondent strongly agree, 19.04 percent marked agree, 19.04 percent undefined, 25.57 marked disagree, 4.28 percent marked strongly disagree.

The statement 16, in this topic was related to obtain respondents response to wards teachers involvement in curriculum planning. The responses obtained from informant were 19.04 percent of total respondent strongly agree, 19.04 percent marked agree, 19.04 percent marked undefined, 28.57 percent mark disagree, 14.28 percent strongly disagree, in this statement. The mean weighted score of this statement was 3.23 which indicate that it is problem so it is concluded that lack of teachers involvement in curriculum, planning.

The statement 17 shows that teachers need refreshment training time to time for effective teaching. The responses obtained from informant were 33.33 percent of total respondent strongly agree, 23.80 percent marked agree, none of them mark undefined, 19.04

percent marked disagree, 23.80 percent mark strongly disagree in this statement. The mean weightage 3.23 of this statement show that there is problem on refreshment training to the mathematics teachers.

The statement 18 in this topic was indented to unavailability of mathematical curriculum and new book. The responses obtained from informant were 38.09 percent of total respondent strongly agree, 19.04 percent marked agree, 19.04 percent marked undefined, 9.52 percent marked disagree, 14.28 percent mark strongly disagree in this statement, the researcher obtained from this statement mean weighted was 3.76 which indicate it is problems. It conducts that mathematical, curriculum, and new books are unavailable in sampled school, in time.

The researcher come to know that all the teacher ware facing problems to the above statements from above analysis of school administration that hinders teacher's attraction on teaching and then directly affects the students achievement on mathematics. So school administration should be good and responsible to address problem.

Problem related to student background and psychological aspect

Students are come to the mathematics classroom, from diverse social and cultural group; they bring with them a wealth of knowledge and experience. Some of these experiences will be acknowledged and others will be denied. When the teacher becomes aware of the differences in knowledge and how these relate to school mathematics, there is a significant opportunity to adjust practice in ways that can allow students from diverse backgrounds to come to learn and understand mathematics.

The researcher observe the student background with a set of questions related to the problem regarding varies background of students.

Table No. 4.4

Problems related to student background and psychological aspect

S.N.	Statement	Mean weight	Remark
19	There is a problem on teaching difference in social, cultural and family environment of students.	3.47	Yes

20	Problem in teaching due to poor background at primary and lower secondary level on mathematics.	3.90	Yes
21	Difficulty to involve both girls and boys students equally in teaching.	2.19	No
22	Difficult in teaching learning management due to variables age individual difference and intelligence of students.	3.04	Yes
23	It is difficult to manage in teaching learning due to individual differences.	4.04	Yes
24	Teacher should respect student's positive response, opinion and feelings.	3.90	Yes
25	Difficulties in the evaluation of students because of individual differences.	4	Yes
26	The student just laughs and makes a lot of noise if we do group work.	4.04	yes
27	It is difficult to manage, time and give attention equally to all students.	4.19	yes

It is generally agreed that students ability are different in learn in mathematics due to various socio- cultural aspects, every community needs mathematics especially if we consider mathematics as a unique art and science that enable man to cope with the complexity of economic, social and technical problem of our society one of the greatest challenges a teacher faces in the complex task of working with and accommodating difference among individual pupils in the classroom, problem related to student's various background have been categorized in to nine different items to identify the responses of teacher. For the convenience of analysis towards the response, mean weightage for each item has been calculated.

The statement 19, the responses obtained from informant were 19.04 percent of total respondent strongly agree, 28.57 percent marked agree, 33.33 percent marked undefined, none of them mark disagree, 19.04 percent disagree, none of them were strongly disagree in this statement the mean weightage was 3.47 indicate that variation in socio-cultural and family environment of students has been a problem for teacher.

The statement 20, the responses obtained from informant were 33.33 percent of total respondent strongly agree, 23.80 percent marked agree, 28.57 percent marked undefined, 9.52 percent marked disagree, 4.76 percent marked strongly disagree in this statement mean weightage value was 3.90 which show the favorable on the student's poor background in mathematics concept at primary and lower secondary level.

The statement 21, respondent the responses obtained from informant were none of them of total respondent strongly agree, 19.04 percent marked agree, 9.52 percent marked undefined, 57.14 percent disagree, 19.04 percent mark strongly disagree in this statement. The mean weightage of statement 21 was 2.19 which indicate the less significance over problem. However, very few cases have been found as problem on participating students of different sex, social and ethnic group.

About the statement 22, the responses obtained from informant were 14.28 percent of total respondent strongly agree, 28.57percent marked agree, 23.80 percent marked undefined, 19.04 percent disagree, 9.520 percent mark strongly disagree in this statement. Teaching learning management due to variable of age, individual difference, and intelligence of students indicates problem. The mean weighted was 3.04 indicates problem. Most of the teachers are favor of the problem for majority teachers.

About the statement 23, the responses obtained from informant were 33.33 percent of total respondent strongly agree, 38.09 percent marked agree, 28.57 percent marked undefined, none of them mark disagree, strongly disagree in this statement shows that 71.42percent of teacher accepted that individual difference arises difficulties in teaching learning mathematics. The mean weightage 4.04 in the rating scale indicates that there is a problem among the mathematics teacher to teach mathematics effectively.

The statement 24, the responses obtained from informant were 38.09percent of total respondent strongly agree, 23.80percent marked agree, 23.80 percent marked undefined, none of them mark disagree,28.57 percent disagree, none of them were strongly disagree in this statement show that there is no problem to the teacher should respect student's positive response, opinion and feelings. The mean weightage was 3.90 indicate less problem about this statement.

The statement 25, under this topic aimed to finding out whether the difficulties in evaluation. The responses obtained from the statement were 33.33 percent of total respondent strongly agree, 38.09 percent marked agree, 23.80 percent marked undefined, 4.76 percent marked disagree, none of them strongly disagree in this statement. Mean weightage was 4 indicates it is problem.

So, it is concluded that some kind of evaluation tool or technique not good for different intelligent students

The statement 26 was intended to obtain researcher to find the difficulties in group work. The actual statement mean weightage was 4.04, the responses obtained from informant were 42.85 percent of total respondent strongly agree, 38.09 percent marked agree, 23.80 percent marked undefined, 4.76 percent disagree, none of them strongly disagree in this statement which indicates that it is problematic. So we concluded that to do group work in the different background student is very difficult.

The statement 27 was put up to the respondents to find out their opinion and experience in regarding the learner's individual difference in mathematics class room. The statement was "it is difficult to manage time and give attention equally to all students". The responses obtained from informant were 47.61 percent of total respondent strongly agree, 38.09 percent marked agree, 19.04 percent marked undefined, none of them marked strongly disagree, 4.76 percent disagree, 23.80 percent mark strongly disagree in this statement, the mean weightage of this statement was 4.19 it indicates. That it is problematic. So it is concluded that different to manage time and give attention equally to all students.

Problem related to evaluation technique

The course in a secondary school is almost completed by an assessment of the student's performance, in the form of marked grade. Frequently this assessment is based solely on an examination set and marked at national level, in which the student is asked to apply his knowledge to solution of a number of exercises of without reference to books and notes. This examination may of longer open –ended question, or a mixture of both. The importance of assessment both for the teacher and students is the acquisition of knowledge and skill, and students are the acquisition of knowledge and skills, and the ability to apply

these in a given situation. Main purpose of evaluation may be to help /provide more intelligent guidance in teaching and learning to develop more effective curricula and educative experience, to secure more intelligent and effective co-operation from parents and community.

From the field survey, it has been found that most of the teachers have facing problem on student's evaluation. Most of the teacher agrees that parent is not interacting with teacher about the achievement in mathematic of their children.

Table No. 4.5

Problem related to student's evaluation

S.N	Statement	Mean weightage	Remark
28.	The parents of the students do not interest with teacher about their children achievement.	3.28	Yes
29.	The school administration doesn't care about the student's achievement in mathematics.	2.47	No
30.	Students do not show any interest with the teachers about their achievement in mathematics.	3.14	Yes
31.	There is difficulty in student's evaluation at the end of the every lesson.	3.61	Yes
32.	It is difficult to check homework due to the lack of sufficient time.	3.42	Yes
33.	There is less use of regular method of testing like unit test; weekly test, monthly test and terminal.	3.28	Yes

From the table 4.5, The responses obtained from informant were 19.04 percent of total respondent strongly agree, 28.57 percent marked agree, 23.80 percent marked undefined, 28.57 percent marked disagree, none of them mark disagree, The mean weight age responses on this statement 28, was 3.28, this shows the strong favor on problem most of the teachers accepted that school does not care about the student achievement in mathematics.

The statement 29, the responses obtained from informant were none of them strongly disagree, 14.28 percent marked agree, 33.33 percent marked undefined, 38.09 percent marked disagree, 14.28 percent marked strongly disagree in this statement weighted was 2.47 which significance less problem. The teachers do not show any interest with the teachers about their achievement in mathematics.

On the statement 30, the responses obtained from informant were 9.52 percent of total respondent strongly agree, 23.80 percent marked agree, 38.09 percent marked undefined, 28.57 percent disagree, none of them strongly disagree in this statement. The mean weight age was 3.14 which indicate that there is a problem.

The statement 31, the responses obtained from informant were 23.80 percent of total respondent strongly agree, 33.33 percent marked agree, 28.57 percent marked undefined, 9.52 percent marked disagree, 4.76 percent marked strongly disagree in this statement. The mean weighted was 3.61 which indicate problem the number If teacher agree that there is difficult in student evaluation at the end of the every lesson.

The statement 32, The responses obtained from informant were 14.28 percent of total respondent strongly agree, 38.09 percent marked agree, 23.80 percent marked undefined, 23.80percent marked disagree, non of them marked strongly disagree in this statement mean weight age was 3.42 which is problem .61.90 Percent of the teacher do not check daily home work due to the lack of sufficient time.

The statement 33, the responses obtained from informant were 9.52 percent of total respondent strongly agree, 33.33 percent marked agree, 38.09 percent marked undefined, 14.28 percent marked disagree, 4.76 percent strongly disagree in this statement. The mean weightage, was 3.28 which indicates a problem. If mean there is less use of regular method of testing like unit test, weekly test, monthly test etc. This statement was found that there is no proper environment to apply the evaluation techniques beside terminal examination.

Thus in general it can be concluded that teachers are facing several problems in curriculum and text book. Various characteristics background of students and methods and material of evaluation as well as teachers were boring checking homework. So the researcher found that there problem related with evaluation technique.

Analysis and interpretation of class observations

Teacher and teaching can make a significant difference to students learning out comes in school mathematics. Teacher has a powerful influence over what and how students learn. Through providing the appropriate learning environment in which content and pedagogy match the background needs and interests of students. All students can learn mathematics the teacher aim was find out the teacher how to problem faced by teaching classroom. Also, if was intended to identify the problems that arose in the classroom while actual teaching goes on. Researcher observes the classes of all sample teachers. The detailed distributions of classroom observation results are given in appendix, F.

For analysis of the classroom observation weight ages of 5, 4, 3, 2, and 1 is assigned to statement if it is stated excellent, good, fair, poor and very poor respectively. Then the mean

weight age was calculated. If the calculated index is greater than 3 then it is concluded that the statement implies least problem. If the index measure is less than or equal to 3 then it is problem.

Table-4.6 shows the distribution of mean weight age in the rating scale.

Table 4.6

Means weight age of classroom observation

S.N	Observed items	Mean weight age	Remarks
1.	Teacher is manage for class	2.61	Yes
2.	Section start on time	2.95	Yes
3.	Level of motivation	2.23	Yes
4.	Level of discipline	3.30	No
5.	Review previous lesson	3.09	No
6.	Objective provided	3.04	No
7.	Instructor presentation of lesson	3	No
8.	Use of instructional material	2.52	Yes
9.	Preparation for the task	2.61	Yes
10.	Many example provided	2.71	Yes
11.	Formation of mathematical concept	2.33	Yes
12.	Classroom problems handled efficiently	2.90	Yes
13.	Mastery of subject matter	3.23	No
14.	Student participation in class	3	No
15.	Teacher questions technique	3.19	No
16.	Focus on learning objective	2.66	Yes
17.	Checking the achievement of objective	2.71	Yes
18.	The quality of homework	2.76	Yes
19.	Indicates about next lesson	2.57	Yes

From the table 4.6, researcher found that from observation form the mean weightage of statement1 was 2.61 which is problem to manage classroom, the statement 2, was 'section start on time'. The mean weightage was 2.95 which indicate problems. The statement 3 was "level of motivation "The mean weightage was 2.23 which indicate problem. The statement

4, mean weightage was 2.30 which, show that there was problem. For this statement 5, was "review previous lesson". The mean weightage was 3.09 which are fewer problems.

The mean weightage of statement 6 was 3.04 which show that less significant problem. The mean weightage of statement 7 was, 3 which indicate also significance problem. The statement 8, mean weightage was 2.52 which show, that there was problem to use instruction materials. The mean weightage of statement 9 was 2.61 which show that is not significance problem to preparation for the task. The statement 10, mean weightage was 2.71 indicate there was problem, to provide many example. The statement 11 was formation of mathematical concept. The mean weightage was 3.33 which show is less fewer problems. The statement 12, mean weightage was 2.90, which show that it is significance problem. The statement 13, mean weightage was 3.23 which show implied it is less significant, problem. The statement 14, mean weightag was 3, which shows that it is not problem. The statement 15, mean weightage was 3.19 which show that, it is not favorable problems. The mean weightage of statement sixteen was 2.16 which are significance problem; the statement seventeen, mean weightage was 2.71 which show it is problem. The statement eighteen was 2.76 which also imply it is significance problem; the statement nineteen mean weightage was 2.57 which is significant problem.

From the observation, the researcher had found that most of teachers were not take their class in time .The researcher found that from observation form, most of the teachers present for class and section start on time was problem. Also, most of the teacher motivation level for the student and they started their own lesson with reviewed the previous class is not satisfactory. Also they provided the objectives of the class. Most of the sample teachers were using accurate content and provided many examples were clear. But learner's involvement in the class was not satisfaction and most of the teachers didn't present materials this was directly observed by researcher. They did not use creativity for section teaching method, but they were using only lecture method.

The achievements of the objectives, indicate about next lesson, quality of the homework, use of materials were not satisfactory. Most of the teacher faced disciplinary problems in the classes because of the student and they did not evaluate the students to provided continuous feedback.

Analysis of Interview

This tool was used for the teacher view in teaching mathematics at secondary level. The forty two teachers of Arghakhanchi district were interviewed by face to face. Interviewed questions were covering four main aspects; interred/motivation, methods of technique, problems in teaching and evaluation technique attitude of mathematics subject, curriculum and material. The information gathered from the interview was analyzed below

Most of the sample teacher state that few students were interested in learning mathematics. Most of the student were took uninterested and difficult subject they felt mathematics is boring subject, student were hopeless toward mathematics subject .Now a day's mathematics has becomes an important subject to human life, which is great influence on overall result of student. For this context most of the students were fear from mathematics. So the teachers have faced more problems in teaching mathematics.

From the class observed researcher found that most of the teacher used lecture methods and problem solving method to teach mathematics. The students were passiveness while teaching lecture methods but some student were attention to; learn new knowledge. While the teacher used problem solving method then the student were crowd and teasing to each other , when the teacher gave some problem to solve, some student were tried to solve themselves but most of the student were cheated and shows that is problem to control them.

From the interview, most of teacher Researcher also found problem on student evaluation. Technique also in our content over emphasis on standardized test, this over emphasis has caused many teachers to shift their overall approach to teach to these standardized tests. This not only takes away from creativity, but it can also quickly create teacher burnout. Standardized testing puts a lot of pressure on a teacher to get their students to perform.

Most of the teacher told that mathematics is very important subject for human beings. Mathematics has close interred relationships with human life. Mathematics related to many social subjects, and technology. Research shows that students cannot learn mathematics effectively by passively listening disengaged from the learning process. Many of the people could not understand its importance. It is necessary to popularization of mathematics means sharing mathematics beauty and its power with a wider public it is trying to change the mathematical attitudes of public, trying to get away from the unpleasant feeling about mathematics, encouraged the people to be more active mathematically. In this study researcher found that there were problem on teaching learning materials also.

Chapter V

SUMMARY, FINDING, CONCLUSION AND RECOMMENDATIONS

The purpose of the study was to identify and analyze the problems faced by teacher teaching in mathematics at secondary level.

The specific objectives of this study were, to identify the problems faced by teachers due to various background characteristics of students to identify the problems related to classroom management, to identify the problems related to teaching method and materials, to identify the problems related to students evaluation technique, to identify the problems related to school administration and to suggest some measures for the solution of the problems.

For the study the problems are categorized in to six different areas. The descriptive survey method is used to conduct the study. The researcher himself developed the opinionnairere items related to various problems faced by the secondary mathematics teachers.

The opinionnaire is finalized with the consultation of mathematics experts and under the guidance of supervisor. The opinionnaire, classroom observation form and interview schedule were main tools of the study. The responses are collected from different sampled teachers using purposive sampling method

The collected data are quantified based on five point Likert scale. Opinionnaires are also included in each category of problem and descriptive analyses of collected responses are carried out statically indicators such as mean weightage, is used for the analysis of the problem. Since the study is qualitative in nature, interview schedule is analyzed in more descriptive way.

Major Findings

From the field survey and statistical analysis of the collected data, it was found that teachers have been facing numbers of problem during the course of teaching mathematics in secondary level. On the basis of analysis and interpretation of data, the finding of this study is presented below in hierarchical order as follows:

Problem related to classroom physical facilities:

-) There is a lack of classroom management for mathematics teaching due to the large numbers of student, lack of moral education, classroom are usually crowded hindering effective teaching especially in urban areas.
-) Lack of furniture creates the difficulties in teaching mathematics.
-) There is lack of proper space to demonstrate instructional materials.
-) Problem to the children in learning mathematics through the laboratory approach.

Problem related to teaching learning theory:

-) There is a problem to prepare lesson plan for every topic.
-) Problem to teach about new concepts, relations, modern techniques and teaching methods.
-) There is a problem to motivate students towards mathematics learning.
-) Difficulties to complete the whole course by using student centered teaching approach.
-) It is difficult for selection the instructional materials related topic.

Problem related to school administration:

-) There is lack of facilities and award for the good performance of the teacher.
-) School doesn't manage refreshment training to teach difficult and rigor topic.
-) Lack of opportunity to participant on interaction, workshops to subject matter.
-) Unavailable of mathematics curriculum, teacher guide on time.

The major problems related to evaluation technique are as follows:

-) There is lack of interaction between guardians and subject teacher about the mathematical achievement of students.
-) There is problem student does not show any interest on the result of mathematics.
-) There is difficulty in student's evaluation at the end of the lesson.
-) Teachers are not checking the homework daily is also the problem.

) There is problem use in evaluation technique due to the different abilities.

Problem related to different characteristics background of student:

) There is a problem in teaching because of different family environment of students.

) Most of the teacher are faced problem of poor background of students at primary and lower secondary level on mathematics.

) There is problem in classroom due to age and individual differences.

) There is problem to manage time and give attention equally to every student.

) There is problem to apply student center method because of number of students are passive.

The Major Problems Related to Teaching Learning Activities follow:

) There is problem to manage class before start section on time.

) Difficulty to demonstrate instructional materials because of huge crowd of students in single classroom.

) There is a problem to teach mathematical concept formation.

) There is a problem to checking achievement of students while teaching.

) There is a problem to handle the classroom effectively.

) Students are not participation on learning mathematics.

Conclusion

From the above stated findings of this study, it can be concluded that mathematics teaching and learning is not satisfactory in Arghakhanchi district. Among the six different categories described above it is found that there are numerous problems faced by teacher due to classroom management, various background characteristics, School administration evaluation technique.

Moreover researcher found those teachers are facing many problems due to lack of training, crowd number of students. Lack of proper teaching materials, lack of math lab facilities, poor evaluation process, time factors, lack of motivation, lack of knowledge about children psychology are the boring problems of the teachers in teaching mathematics at

secondary level. Similarly, negative attitude towards mathematics is a major psychological problem.

Recommendations

On the basis of above findings and conclusion, the following recommendations are presented:

-) Teacher should try find out students' interest and need according their psychology and then apply to suitable method for effective teaching.
-) Psychological facilities should be supplied in the classroom as much necessary.
-) School need to make separate mathematics laboratory.
-) Teacher should create the meaningful mathematics environment in the class.
-) Teacher should accept the students' diversity and treat them by individually difference if possible.
-) Training, orientation and supervision should be provided to teacher.
-) Teacher should search the suitable methodology which motivate and arise the interest in mathematics of the students.
-) A district level orientation program should be conducted for mathematics teacher to make there familiar with the new curriculum.
-) School should provide the information about the achievement of student of their parents and should create the environment for coordination with teachers, parents and students.
-) School administration should help to the teacher to their professional development.
-) Suitable teaching aid should be used in teaching mathematics and students should be encouraged to get involved in active participation in the classroom activity.

Recommendations for further study:

The researcher has been found the following recommendations for further study.

-) Similar studies should be executed in other level.

-) Problems faced by differently able teachers or students. Similar studies can be carried out in other region.
-) The problem related to use of instructional material of the further study.
-) Similar studies can be carried out in other region.

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APPENDIX - A

Problem related to classroom Management

S. No	Statement	SA	A	UN	DA	SDA
1	The mathematics classroom is crowded.					
2	Physical facility is adequate.					
3	There is a lack of proper space to demonstrate instructional materials.					
4	There is lack of mathematics laboratory.					

You faced any other problems of teaching due to classroom Management.

Problem:

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.....

APPENDIX - B

Problem related to teaching learning strategy

S. No	Statement	SA	A	UN	DA	SDA
5	There is problem of using daily lesson plan in every topic.					
6	There is a problem of using instructional materials for every topic.					
7	The problem solving method is sufficient to teach mathematics.					
8	Confused which method is used in which lesson or unit.					
9	Lack of training modern technology and new methods of teaching.					
10	It is difficult to complete whole course by student centered teaching approach.					
11	Lack of knowledge about psychology of the children.					
12	Problem in teaching mathematical new concepts, relations and skills.					
13	Difficulty in motivation students due to passiveness on reasoning and creative thinking.					

APPENDIX - C

S.N	Statement	SA	A	UN	DA	SDA
14	Lack of award for good performance					
15	Lack of coordination among the co-workers and administration					
16	Problem of teacher involve in curriculum planning.					
17	Lack of opportunity of refreshment training to each difficult and rigor topics					
18	Unavailable of mathematics curriculum and new book.					

If you have felt any problem please mention those problems below:

.....

Note: SA= Strongly Agree, A= Agree, UN= Undefined, DA= Disagree, SDA= Strongly Disagree

APPENDIX - D

Problem related to Student Background and Psychological Aspect

S.N	Statement	SA	A	UN	DA	SDA
19	There is a problem on teaching difference in social, cultural and family environment of students.					
20	Problem in teaching due to poor background at primary and lower secondary level on mathematics					
21	Difficulty to involve both girls and boys students equally in teaching l					
22	Difficult in teaching learning management due to variables age l, individual difference and intelligence of students					
23	It is difficult to manage in teaching learning due to individual differences.					
24	Teacher should respect student's positive response, opinion and feelings.					
25	Difficulties in the evaluation of students because of individual differences.					
26	The student just laughs and makes a lot of noise if we do group work.					
27	It is difficult to manage, time and give attention equally to all students.					

If you face any other problem mention those problems below:

.....

Note: SA= Strongly Agree, A= Agree, UN= Undefined, DA= Disagree, SDA= Strongly Disagree

APPENDIX – E

S.N	Statement	SA	A	UN	DA	SDA
28	The parents of the students do not interest with teacher about their children achievement.					
29	The school administration doesn't care about the student's achievement in mathematics.					
30	Students do not show any interest with the teachers about their achievement in mathematics.					
31	There is difficulty in student's evaluation at the end of the every lesson.					
32	It is difficult to check homework due to the lack of sufficient time.					
33	There is less use of regular method of testing like unit test; weekly test, monthly test and terminal.					

Do you face any other problem to evaluation technique mention those problem below:

.....

Note: SA= Strongly Agree, A= Agree, UN= Undefined, DA= Disagree, SDA= Strongly Disagree

APPENDIX - F

School name:

Name of teacher:

Gender:

Teaching experience:

Class:

Topic:

Period:

Time:

Teacher spent time in classroom:

Total no of student:

Date:.....

S.N	Observed Item	Excellent	Good	Fair	Poor	Very Poor
1.	Teacher is manage for class					
2.	Section start on time					
3.	Level of motivation					
4.	Level of discipline					
5.	Review previous lesson					
6.	Objective provided					
7.	Instructor presentation of lesson					
8.	Use of instructional material					
9.	Preparation for the task					
10.	Many example provided					
11.	Formation of mathematical concept					
12.	Classroom problems handled efficiently					
13.	Mastery of subject matter					
14.	Student participation in class					
15.	Teacher questions technique					
16.	Focus on learning objective					

17.	Checking the achievement of objective					
18.	The quality of homework					
19.	Indicates about next lesson					

a) Mention the striking point of the lesson

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.....

.....

b) Mention the observed problem on learning

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Observer's Name

APPENDIX – G

School name.....

School address

Name of teacher.....

Gender:.....

Teaching experience.....

Training.....

Qualification:

1. Interest /motivation

a. How do you motivate to the students?

Is mathematics interesting for majority of students?

2. Method of teaching

a. Which methods have you followed and why?

3. Problem in teaching and evaluation technique?

a. How frequently do you face problems in teaching?

b. What kinds of problem are faced in evaluation technique?

4. Use of curricular materials and attitude of mathematics subject

a. Do you use curricular materials daily?

b. What are your attitude, belief and interest on mathematics subject?

Some other additional cross question are asked to be clearer where necessary?

APPENDIX - F

Distribution of Teacher Response

Responses of the teacher												
Statement	SA		A		UN		DA		SDA		Mean	Remark
	T	Per	T	Per	T	Per	T	Per	T	Per		
1	14	33.33	10	23.80	6	14.28	8	19.04	4	9.52	3.52	Yes
2	8	19.04	14	33.33	8	19.04	10	23.80	6	14.28	3.47	Yes
3	16	38.09	14	33.33	6	14.28	6	14.28	0	0	3.95	Yes
4	30	71.42	6	14.28	6	14.28	0	0	0	0	4.57	Yes
5	10	23.83	12	39.33	2	4.76	10	23.80	4	9.52	3.23	Yes
6	14	33.33	12	28.57	8	19.04	4	9.52	4	9.52	3.66	Yes
7	10	23.80	14	19.04	6	14.28	12	28.57	6	14.28	3.09	Yes
8	6	14.28	8	19.04	10	23.80	12	28.57	6	14.28	2.09	No
9	14	33.33	8	19.04	10	23.80	4	9.52	6	14.28	3.47	Yes
10	16	38.08	10	23.8	4	9.52	10	23.80	2	8.57	3.61	Yes
11	4	9.52	8	19.05	8	19.04	12	28.55	10	23.80	2.61	No
12	6	14.28	10	23.80	18	42.85	8	19.04	0	0	3.33	Yes
13	14	33.33	10	23.80	6	14.28	8	19.04	4	9.52	3.52	Yes
14	4	9.57	8	19.04	10	23.80	12	28.57	8	19.04	3.28	Yes
15	10	19.04	8	19.04	6	19.04	12	28.57	6	14.28	3.09	Yes

16	8	19.04	12	28.57	8	19.04	10	23.80	4	9.52	3.23	Yes
17	14	33.33	10	23.80	0	0	8	19.04	10	23.80	3.23	Yes
18	16	38.09	8	19.04	8	19.04	4	9.52	6	14.28	3.76	Yes
19	8	19.04	12	28.55	14	33.33	8	19.04	0	0	3.47	Yes
20	14	33.33	10	23.80	12	28.57	4	9.52	2	4.56	3.90	Yes
21	0	0	6	19.04	4	9.52	24	57.14	8	19.04	2.19	No
22	6	14.28	12	28.55	10	23.80	8	19.04	8	9.52	3.04	Yes
23	14	33.33	16	38.09	12	28.55	0	0	0	0	4.04	Yes
24	16	38.09	10	23.80	12	28.55	4	9.57	0	0	3.90	Yes
25	14	33.33	16	38.09	10	23.80	2	4.76	0	0	4	Yes
26	18	42.85	12	38.09	10	23.80	2	4.76	0	0	4.04	Yes
27	20	47.61	12	38.09	8	19.04	2	4.76	0	0	4.19	Yes
28	8	19.04	12	28.57	10	23.80	12	28.57	0	0	3.28	Yes
29	0	0	6	14.28	14	33.33	16	38.09	6	14.28	2.47	No
30	4	9.52	10	23.80	16	38.09	12	28.57	0	0	3.14	Yes
31	10	23.80	14	33.33	12	28.55	4	9.52	2	4.76	3.61	Yes
32	6	14.28	16	38.09	10	23.80	10	23.80	0	0	3.42	Yes
33	4	9.52	14	33.33	16	38.09	6	14.28	2	4.76	3.28	Yes

Note: SA= Strongly Agree, A= Agree, UN= Undefined, DA= Disagree, SDA= Strongly Disagree