

**A STUDY ON PROBLEMS FACED BY STUDENTS AND  
TEACHERS IN TEACHING-LEARNING ACTIVITIES ON VECTOR  
AT SECONDARY LEVEL IN PARBAT DISTRICT**

A THESIS SUBMITTED  
BY  
DIPAK SHARMA  
T. U. REGISTRATION NUMBER : 17936-92  
EXAM ROLL NO: 480313

FOR THE PARTIAL FULFILLMENT OF THE  
REQUIREMENTS  
FOR THE DEGREE OF MASTER OF EDUCATION

SUBMITTED  
TO  
TRIBHUVAN UNIVERSITY  
PRITHVI NARAYAN CAMPUS  
DEPARTMENT OF MATHEMATICS  
FACULTY OF EDUCATION  
POKHARA, NEPAL  
DECENMER , 2011

**TRIBHUVAN UNIVERSTTY**  
**PRITHVI NARAYAN CAMPUS**  
**DEPARTMENT OF MATHEMATICS**  
**FACITY OF EDUCATION**  
**POKHARA, NEPAL**

Thesis Submitted

By

**DIPAK SHARMA**

Entitled

**A STUDY ON PROBLEMS FACED BY STUDENTS AND TEACHERS IN  
TEACHING-LEARNING ACTIVITIES ON VECTOR IN PARBAT DISTRICT**  
has been approved in partial fulfillment of requirements for the  
degree of **Master of Education**.

**Committee for the Viva -Voce**

1. Asso. Prof. Narendra Narayan Jha  
Head of department of Mathematics  
P.N. Campus, Pokhara

**Signature**

\_\_\_\_\_

2. Prof. Dr. Krishna Kumar Shrestha  
(External)

\_\_\_\_\_

3. Mr. Bishnu Bahadur Thapa  
(Supervisor)

\_\_\_\_\_

Date: \_\_\_\_\_

**TRIBHUVAN UNIVERSTTY**  
**PRITHVI NARAYAN CAMPUS**  
**DEPARTMENT OF MATHEMATICS**  
**POKHARA, NEPAL**

**CERTIFICATE**

This is to certify that Mr. Dipak Sharma, student enrolled in the university in academic year 2064/2065 with TU Registration No. 17936-92 and examination Roll No. 480313 (066) has completed this thesis under my supervision during the prescribed period abiding the rules and regulations of TU. The research paper entitled "**A study on Problems faced by students and teachers in teaching-learning activities on vector in Parbat district**" embodies the results of his investigation conducted during 2011 under the department of Mathematics, Prithvi Narayan Campus, Pokhara. I recommend and forward this thesis to be submitted for evaluation as the partial requirement to award the degree of Master of Education.

\_\_\_\_\_

Mr. Narendra Narayan Jha

Thapa

(Head)

(Supervisor)

Department of Mathematics

Mathematics

Prithvi Narayan Campus

Campus

Pokhara, Nepal

Nepal

\_\_\_\_\_

Mr. Bishnu Bahadur

Department of

Prithvi Narayan

Pokhara,

Date:\_\_\_\_\_

## ACKNOWLEDGEMENTS

The study entitled " A study on Problems faced by students and teachers in teaching-learning activities on vector in Parbat district" is undertaken as the partial requirement for Master's degree in Mathematics Education.

The study has been completed under the supervision of Bishnu Bahadur Thapa, Lecturer of P.N. Campus Pokhara. I owe deep gratitude for his kind outstanding guidance, suggestions and inspiration, which led me a basic foundation for the success of this attempt.

I would like to express my sincere gratitude to Asso. Prof. Narendra Narayan Jha, the head of the Department of Mathematics, Prithvi Narayan Campus for constructive suggestion and encouragement that led me carry out this work successfully, I would also like to extend my sincere thankfulness to Prof. Dr. K.K. Shreshtha for his exclusive suggestions for preparing the final draft of the research work.

I would also like to express my gratitude to the teachers and students of Jana Netra Higher secondary school and Nava Jagrit Higher secondary Schools' family for their kind co- operation and providing opportunity for data collection to complete this thesis, I am equally indebted to my respected personality Maheswor Pokhrel, Bibhav Neupane, Ganga Dhar Paudel, Ram Chandra Neupane and Tribhuvan Sharma of the members of Mathematics P.N. Campus Pokhara for their direct or indirect valuable suggestions and comments.

Similarly, my special thanks goes to the my staffs of Jana Netra Higher secondary School for providing necessary information.

I am equally grateful to those authors publications whose are used as reference for this dissertation work.

Lastly, I am thankful to Rajendra Regmi of Prabesika computer training center, Dimuwa, Parbat for their excellent word processing works.

## ABSTRACT

Mathematics is an important subject which is taught at every level of our country and has significant place in curriculum. This thesis has been intended to identify the cause of becoming and facing problems by teachers and students on vectors teaching- learning. This is a case study about facing problems by teachers and students on vectors teaching- learning activities of additional Mathematics. It is qualitative research as well as descriptive in nature. For this purpose researcher selected only two government school: one from rural area and other from the urban area as the sample school of Parbat district. The respondents are mathematics teachers; students, head teachers and parents, The tools used in data collection procedure are class observation, face to face interview and recorded history of schools. The findings of this study have found out on the basis of data analysis and interpretation of the result, Being faced problems on vectors teaching learning are related to instruction, methods, materials, pre -knowledge of students and activities of teachers' and students. The negative attitude, beliefs and less interest of students of vector learning, also poor evaluation technique are problems on vectors learning. The above problems are becoming on vectors teaching learning due to students' weak pre- knowledge about vectors and poor geometrical background, Teachers do not access modern teaching techniques, methods and materials at vectors leaching, Vector learning seems to be exam oriented rather than practical oriented or its application, Lack of students' project works on vectors learning, Vector being an abstract subject matter and also, it is a new concept; so it is difficult to create interest on students. Due to poor evaluation system, careless of schools' administration and non- effective learning management' both teachers and students faced problems on vector teaching learning,

# CONTENTS

Page	
Certificate	ii
Acknowledgement	iii
Abstract	iv
Content	v
List of table	vii
List of figure	vii
Abbreviations	viii

## **Chapter I: INTRODUCTION**

### **1-8**

1.1 Background of the study	1
1.2 Statement of problem	5
1.3 Objectives of the study	6
1.4 Significance of the study	6
1.5 Meaning of related terms	6
1.6 Limitations of the study	7

## **Chapter II: REVIEW OF LITERATURE**

**9-16**

2.1 Theoretical Literature

9

2.2 Conceptual Framework

12

2.3 Research Review

13

## **Chapter III: RESEARCH METHODOLOGY**

**17-19**

3.1 Research Design

17

3.2 Sample of the study

17

3.3 Source of Data

17

3.4 Selection of Respondents

17

3.5 Tools

18

3.6 Data collection procedure

18

3.7 Data Analysis and Interpretation

19

## **Chapter IV: PRESENTATION AND ANALYSIS OF DATA**

**20-44**

4.1 Learning Environment

20

4.1.1	Location of Schools	21
4.1.2	Physical Facilities of Schools	22
4.1.3	SLC Results of the Past five Years	23
4.1.4	Students' Relation with teachers and others	27
4.1.5	Public images towards school	31
4.1.6	Environment of Home and Society	32
4.2	Activities of Teacher' and Students' in Class Room	33
4.3	Required Pre- Knowledge of Students for Vectors Learning	35
4.4	Teachers and Students Characteristics	37
4.5	Teachers and Students Attitude, Belief, Interest on Vector	39
4.6	Teaching Methods, Materials And Evaluation Technique Promoted	41
	By Teacher for Vectors Teaching	

## **Chapter V: SUMMARY, CONCLUSIONS AND 45-47**

### **RECOMMENDATIONS**

5.1	Summary	45
5.2	Conclusions	46

### 5.3 Recommendations

46

## **BIBLIOGRAPHY**

## **APPENDICES**

## LIST OF TABLES

### Page

### Table

2.1	Content and performance (CDT)	10
4.1	SLC Results of JNHSS	23
4.2	SLC result of NJHSS	25

## LIST OF FIGURES

### Figure

- 2.1 A framework of Problems on Vectors teaching learning  
12
- 4.1 Bar Diagram of SLC Results from 2063 BS - 2007BS  
23
- 4.2 Time Series of SLC Result From 2063BS-2067BS  
24
- 4.3 Bar Diagram of SLC result from 2063BS- 2067BS  
26
- 4.4 Time Series of SLC result from 2063BS-2067BS  
27

## **ABBREVIATIONS**

BS	Bikram Sambat
NEC	National Education Commission
FOE	Faculty of Education
NNEPC	Nepal National Education Planning Commission
ARNEC	All Round National Education Committee
NESP	National Education System Plan
SLC	School Leaving Certificate
School X	Nava Jagrit Higher Secondary School
School Y	Jana Netra Higher Secondary School
TU	Tribhuvan University
SEDU	Secondary Education Development Unit
CDC	Curriculum Development Centre
CDT	Component Display Theory
ZPD	Zone of Proximal Development
NBPTS	National Board for Professional Teaching Standards
VDC	Village Development Committee
JNHSS	Jana Netra Higher Secondary School
NJHSS	Nava Jagrit Higher Secondary School