MEDIUM OF INSTRUCTION AND MATHEMATICS ACHIEVEMENT OF STUDENTS

 \mathbf{A}

THESIS

 \mathbf{BY}

SAMJHANA THAPA MAGAR

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

SUBMITTED

TO

DEPARTMENT OF MATHEMATICS EDUCATION

CENTRAL DEPARTMENT OF EDUCATION

UNIVERSITY CAMPUS, KIRTIPUR, KATHMANDU

TRIBHUVAN UNIVERSITY

MEDIUM OF INSTRUCTION AND MATHEMATICS ACHIEVEMENT OF STUDENTS

A

THESIS

 \mathbf{BY}

SAMJHANA THAPA MAGAR

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

SUBMITTED TO

DEPARTMENT OF MATHEMATICS EDUCATION

CENTRAL DEPARTMENT OF EDUCATION

UNIVERSITY CAMPUS, KRITIPUR, KATHMANDU

TRIBHUVAN UNIVERSITY

LETTER OF CERTIFICATE

This is to certify that Mrs. Samjhana Thapa Magar a student of academic year
2070/071 with Campus Roll No: 696/070, Thesis number 1288, Exam Roll No:
280515 and T. U. registration number 9-1-43-62-2006 has completed this thesis for
the period prescribed by the rules and regulations of Tribhuvan University, Nepal.
This thesis entitled 'Medium of Instruction and Mathematics Achievement of
Students' has been prepared based on the result of her investigation. I hereby
recommend and forward that her thesis be submitted for the evaluation as the partial
requirements to award the degree of Master of Education.

Date:

(Assoc.Prof. Laxmi NarayanYadav)

HOD

RECOMMENDATION FOR ACCEPTANCE

This is to certify that Mrs. Samjhana Thapa Magar has completed her M.Ed.
thesis entitled 'Medium of Instruction and Mathematics Achievement of Students'
under my supervision during the period prescribed the rules and regulations of
Tribhuvan University, Kirtipur, Kathmandu, Nepal. I recommend and forward her
thesis to the Department of Mathematics Education to organize final viva-voce.
(Mr. Krishna Prasad Adhikari)
Supervisor
Date:

LETTER OF APPROVAL

This thesis entitled 'Medium of Instruction and Mathematics Achievement of Students' submitted by Mrs. Samjhana Thapa Magar in partial fulfillment of the requirements for the Master's Degree in Education has approved.

Vice-Voce Committee Signature	
Assoc. Prof. Laxmi Narayan Yadav	
(Chairman)	
Prof. Dr. Ramjee Prasad Pandit	
(External)	
Mr. Krishna Prasad Adhikari	
(Supervisor)	
Date:	

©2017

Copyright by Samjhana Thapa Magar

This document is copyright material. Under law, no parts of this document may be reproduced without the expressed permission of the researcher.

Defense Date:

All Right Reserved

DECLARATION

This dissertation contains no material which has been accepted for the award of other degree in any institutions. To the best of knowledge and belief this thesis contains no material previously published by any authors except due acknowledgement has been made.

(Samjhana Thapa
Magar)

ACKNOWLEDGEMENTS

I want to express my gratitude to the respected supervisor Mr. Krishna Prasad Adhikari, Department of Mathematics Education, Central Department of Education T.U. for his scholarly guidance. So, I am heavily indebted towards him. It is my pleasure to receive remarkable feedbacks given by Associate Professor Dr. Ekaratna Acharya and Associate Professor Dr. Bed Raj Acharya. I have no words to appreciate them in refining this report.

At the same time, I am very grateful to my respected teacher Associate Prof.

Laxmi Narayan Yadav, (Head, Department of Mathematics Education), Prof. Dr. Hari

Prasad Upadhyay, Mr. Abatar Subedi, Mr. Bed Prasad Dhakal, Mrs. Sarala Luitel, Mrs.

Hom Kumari Adhikari, Mr. Deepak Mainali, and all the members of Department of

Mathematics Education for their valuable comments and suggestions.

I would also like to express thanks to all the head teachers, mathematics teachers, parents and students of the concerned school for their kind cooperation. I wish to express my grateful appreciation and indebted to my parents Harsha Bahadur Thapa Magar and Rasmaya Thapa. Similarly, I am greatly indebted to my Grandmother, my brother and sisters for their great love, constant support and encouragement to complete my study.

Finally, I had like to express my sincere thanks to all my friends who help me for this study. Special thanks go to my husband and all family members for their invaluable contribution to my carrier development during my study. I would like to thanks all the people who have directly and indirectly contributed to complete this study.

	••••			,
San	njhaı	na Tha	apa M	agar

ABSTRACT

This study intended to compare the students' achievements in mathematics taught by English and Nepali medium of instruction. The objectives of this study were to compare the mathematics achievement of students in English and Nepali medium schools and to analyze the teaching learning activities in English and Nepali medium schools. The researcher adopted mixed method research design to achieve the objectives. Firstly, the quantitative data collected through achievement test and secondly the qualitative data was obtained through classroom observation of teachers. For this study, the researcher had selected 200 students randomly from six schools as the sample of the study. Among them, three schools were English medium and three schools were Nepali medium. From these schools four mathematics teachers were selected randomly including two from each English medium and Nepali medium school. The quantitative data obtained from mathematics achievement test were analyzed and interpreted by using percentage, mean, standard deviation and t-test and qualitative data obtained from observation form were analyzed descriptively.

The test paper shows that, student of English medium schools secured 94 percentages in distinction, 4 percentages in first division, 1 percentage in second and third division. Students of Nepali medium schools secured 10 percentages in distinction, 28 percent in first division, 40 percent in second division, 20 percent in third division and 2 percent failed. The mean score of the students in English medium schools and Nepali medium schools students are 37.05 and 21.82 respectively. The t-value calculated is 22.35. Since, the calculated t-value is greater than tabulated value 1.96. The qualitative data obtained from classroom observation, it shows that the teaching learning activities of English medium school was effective than the Nepali medium school.

CONTENT

	Page No.
Letter of Certificate	i
Letter of Approval	ii
Recommendation for Acceptance	iii
Copyright	iv
Declaration	ν
Acknowledgement	vi
Abstract	vii
Table of Content viii-x	
List of Table	xi
Chapters	
I: INTRODUCTION	1-6
Background of the Study	1
Statement of the Problem	4
Objectives of the Study	4
Significance of the Study	4
Statements of the Hypothesis	5
Delimitation of the Study	5
Operational Definition of the Key Terms	6
II: REVIEW OF THE RELATED LITERATURE	7-13
Conceptual Understanding of the Study	12
III: METHODS AND PROCEDURES	14-20
Design of the Study	14
Population of the Study	14
Sample of the Study	15
Tools of Data Collection	16
Reliability and Validity of the Test	17

Data collection Procedure	19
Data Analysis Procedure	20
IV: ANALYSIS AND INTERPRETATION OF DATA	21-37
Analysis of the Student's Achievement on the Basis of Achievement Test	21
Comparison of Mathematics Achievement between English and Nepali Medium School Students	m 25
Analysis based on Classroom Observation	26
V: SUMMARY, CONCLUSION AND RECOMMENDATION	38-40
Summary	38
Findings	39
Conclusions	40
Recommendations	41
REFERENCES	42-44
APPENDICES	

List of Table	Page no
Table 1: List of sampled schools of this study, English Medium School	15
Table 2: List of sampled schools of this study, Nepali Medium School	16
Table 3: Level of mathematics achievement of student in English Medium	
School	22
Table 4: Level of mathematics achievement of student in Nepali Medium Scho	ool 23
Table 5: Mathematics Achievement of Students in English and Nepali	
Medium Schools	25