## PARTICIPATION OF GIRLS IN MATHEMATICS

A

## **THESIS**

 $\mathbf{BY}$ 

## SUSHMA DEVKOTA

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

## **SUBMITTED**

TO

DEPARTMENT OF MATHEMATICS EDUCATION

CENTRAL DEPARTMENT OF EDUCATION

TRIBHUVAN UNIVERSITY

UNIVERSITY CAMPUS

KIRTIPUR, KATHMANDU

2017

# LETTER OF APPROVAL

This thesis entitled 'Participation of Girls in Mathematics" sub	omitted by Mrs.
Sushma Devkota in partial fulfillment of the requirements for the	Master's Degree in
Education has been approved.	
Viva Voce Committee	Signature

Asso. Prof. Laxmi Narayan Yadav			
(Chairman)			
Prof. Dr. Hira Bahadur Maha	rian		
(External)	3		
Mr. Lok Nath Bhattarai			
(Supervisor)			

Date.....

# LETTER OF CERTIFICATE

This is to certify that <b>Mrs. Sushma Devkota</b> , student of academic year 2070/2071
with campus Roll No. 255, thesis No. 1255 Exam Roll No. 280543 T.U Registration
No. 9-2-257-2009 has completed this thesis under the period prescribed by the rules
and regulation of Tribhuvan University, Nepal. The thesis entitled 'Participation of
Girls in Mathematics' embodies the result of her investigation. I here by
Recommend and forward that this thesis be submitted for the partial requirements to
award the degree of Master Education.
Head
(Assoc. Prof. Laxmi Narayan Yadav)

Date: .....

## RECOMMENDATION FOR ACCEPTANCE

This is certify that **Mrs. Sushma Devkota** has completed her M.Ed. thesis entitled "**Participation of Girls in Mathematics**" under my supervision during this period prescribed by the rules and regulation of Tribhuvan University, Kirtipur ,Kathmandu ,Nepal. I recommend and forward her thesis to Department of Mathematics Education to organize final viva-voce.

<b></b>	
Date:	

Mr. Lok Nath Bhattarai

(Supervisor)

#### **ACKNOWLEDGEMENTS**

My first obligation goes to the Department of Mathematics Education T.U, Kirtipur, Kathmandu, Nepal for providing me an opportunity to carry out this study.

I would like to express my sincere thanks, cordial gratitude and deep appreciation to Mr. Lok Nath Bhattarai, my supervisor from department of mathematics education, Kirtipur, for his continuous guidance and valuable suggestions in making this thesis complete.

I am indebted to Assoc. Prof. Dr. Laxmi Narayan Yadav, Head Department Mathematics Education and Prof. Dr. Hari Prasad Upandhyay, Prof. Dr. Min Bahadur Shrestha, Prof Dr. Binod Dhakal, Assoc. Prof.Dr. Bed Raj Aacharya for their valuable suggestions, comments, inspiration and encouragement in improving this thesis.

It would be injustice not to express heartiest gratitude to Mr. Govinda Khanal, Principal of Amar Jyoti Janata Secondary School ,Gorkha and Oja Raj Giri Principal of Bhawani Secondary School, Thatipokhari, for providing me the students for the experiment and Mr/Mrs. Omprasad Neupane and Brinda Neupane an experienced Mathematics teacher of the school, for sincere cooperation in selection of sample student and arrangement of environment for the test administration.

I warmly express my special thanks for my family member. Also special thanks for friends Agnidhar Bhusal, Jimita Pokharel and other who helped me to complete this thesis and not the least, my thanks go to those whose names are not mentioned here but helped me directly and indirectly during my study.

Sushma Devkota

#### **ABSTRACT**

This study focuses on the participation of girls in mathematics at secondary level. This is a survey research that attempts to describe the participation level of girls' students in secondary level mathematics and to analyze the participantion of girls. Four secondary schools were selected randomly from all schools of Gorkha District including one rural and three urban areas. One set of opinionnaire schedule was administered to find out the level of girls participation in mathematics class of selected class of sample secondary schools. And one set of opinionnaire scale was prepared and distributed to the girls' students to find out the effect of teaching learning process, home environment, school environment, social variable and self interest towards mathematics in girl participation. Concerning to above factors unstructured interviews was taken with mathematics teachers from respective sample secondary schools. Statistical test such as:  $\chi^2$ - value was used to interpret the result and reflection was made over the statistical.

This study shows that the participation of girl students is low in comparison to boys in Mathematics. The main factors that affect the participation of girls are: male dominated society, less priority was given by parents to their daughter than sons, different error made by students in solving mathematical problem, home environment, school environment, teaching learning process, drill and practice. At last, it is concluded that girls are equally able and should be given equal facilities at home and at school to learn mathematics. Parent and teachers should not consider boys are assert and daughter as a liability.

## © 2017

## Sushma Devkota

This document is copyright materials be reproduced without the expressed permission of the researcher.

Defense Date: ...../2017

All right reserved

# **DEDICATION**

This is dedicated to my respected parents Krishna Prasad Devkota and Tirtha Kumari Devkota

## **DECLARATION**

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

.....

Sushma Devkota

# TABLE OF CONTENTS

		Page No.
Letter of A	Approval	i
Letter of	Certificate	ii
Recomme	endation for Acceptance	iii
Acknowle	dgement	iv
Abstract		ν
Dedicatio	on	vii
Declarati	on	viii
Table of C	Contents	ix
List of Ta	bles	xii
List of Fig	gures	xiii
Chapters	5	
I:	INTRODUCTION	1-7
	Background of the Study	1
	Statement of the Problem	4
	Objectives of the Study	5
	Significance of the Study	5
	Delimitation of the Study	6
	Definition of the Related Terms	7
II:	REVIEW OF RELATED LITERATURE	8-17
	Review of Empirical Literature	8
	Theoretical Literature	13
	Conceptual Framework	16

III:	MET	THODS AND PROCEDURE	18-24
		Design of the Study	18
		Population of the Study	19
		Sample of the Study	19
		Tools of the study	20
		Reliability and Validity of Instrument	22
		Data Collection Procedures	23
		Data Analysis Procedures	23
	IV:	ANALYSIS AND INTERPETATION OF DATA	25-45
		The Level of Participation of Girls' Students in Mathematics	25
		The Participation of Girls' Students in Mathematics	30
		Teaching Learning Process	30
		Home Environment	34
		School Environment	36
		Self Interest	39
		Social Variable	41
		Analysis on Participation of Girls Students in Mathematics	44
	V:	SUMMARY, FINDINGS, CONCLUSION AND	
		RECOMMENDATIONS	46-50
		Summary of the Study	46
		Finding of the Study	47
		Conclusion	48
		Recommendation for further Study	49
DEE	י כו קוקוי		

## **REFFERENCES**

# **APPENDICES**

# LIST OF TABLE

Table No.	Pag	ge No.
1	The literacy rate in different year of Nepal	3
2	School/Gender wise presentation of sample	19
3	Likert-Scale Point Used on Technique of Scoring	21
4	Attendance Percentage of the Students	26
5	Percentage of Class Work and Home Work Done by	
	students	27
6	Peers Students Interaction in Classroom	28
7	Teachers Students Interaction in Classroom	29
8	Extra Curriculum Activities	29
9	$\chi^2\mbox{ Value}$ about the Influence of Teaching Learning Process	
	in Mathematics	32
10	$\chi^2\mbox{ Value}$ about the Influence of Home Environment in	
	Mathematics	35
11	$\chi^2$ Value about the Influence of School Environment in	
	Mathematics	37
12	$\chi^2$ Value about the Influence of Self Interest in Mathematics	40
13	$\chi^2$ Value about the Influence of Social Variable in	
	Mathematics	42