

**EFFECTIVENESS OF PROBLEM SOLVING METHOD IN
LEARNING MATHEMATICS AT SECONDARY LEVEL**

**A
THESIS
BY
SARASWOTI BHATTA**

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

**SUBMITTED TO
DEPARTMENT OF MATHEMATICS EDUCATION
CENTRAL DEPARTMENT OF EDUCATION
UNIVERSITY CAMPUS
TRIBHUVAN UNIVERSITY
KIRTIPUR, KATHMANDU
2016**



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LETTER OF CERTIFICATE

This is to certify that Ms. **Saraswoti Bhatta**, a student of academic year 2067/068 with Exam Roll No. 281386, Thesis Registration number 984 and T.U. Registration number 9-2-29-1327-2005 has completed this thesis under my supervision, during the period prescribed by the rules and regulations of Tribhuvan University. The thesis entitled “**Effectiveness of Problem Solving Method in Learning Mathematics at Secondary Level**” embodies the results of his investigation conducted during the period of 2015 at the Department of Mathematics Education, University Campus, Tribhuvan University, Kirtipur, Kathmandu. I recommend and forward that his thesis be submitted for the evaluation to award the degree of Master of Education.

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Supervisor

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(Asso. Prof. Laxmi Narayan Yadav)
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Date:- 2016-04-05



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LETTER OF APPROVAL

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Thesis

By

Saraswoti Bhatta

Entitled

Effectiveness of Problem Solving Method in Learning Mathematics at Secondary Level has been approved in partial fulfillment of requirements for the degree of **Master of Education**.

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ACKNOWLEDGEMENTS

I would like to extend my deep sense of profound gratitude to Prof. **Dr. Binod Prasad Dhakal**, Professor of Mathematics Education for his supervision and guidance with most regular inspirations, encouragement and insightful suggestions throughout my study. I would like to acknowledge his invaluable instructions, suggestions, guidance and strong cooperation in completing this study.

I cannot help expressing my sincere gratitude to **Mr. Laxmi Narayan Yadav**, Head of the Department of Mathematics Education, Tribhuvan University, Kirtipur for his inspirations and valued suggestions.

I owe a debt of profound gratitude to **Mr. Bed Prasad Dhakal, Lok Nath Bhattra**i and **Prof. Dr. Lekhnath Sharma** for their continuous guidance, regular inspiration and enthusiastic encouragement to complete this research.

I would like to express my gratitude to all my teachers, head teachers of selected schools, mathematics teachers and the involved students of those schools of Kathmandu where I had visited for the sample population of my research experiment. Had they not co-operated me, my entire effort of this study would have been paralyzed.

I acknowledge to all those who directly or indirectly helped me in completing this rigorous work of research.

I am equally thankful enough to **Mr. Sanjeev Shah** for his help of computer setting and bringing out this booklet in this form.

At last but not the least, my thanks goes to my ever loving mother **Mrs. Bhuna Devi Bhatta** and my husband **Mr. Umesh Bagale** as they have offered their valuable time to me in completing this rigorous work of research.

Saraswati Bhatta

ABSTRACT

This study presents an experiment on the effectiveness of problem solving method in learning mathematics at secondary level. The main goal of the study is to analyze the collected data and find out the effectiveness of problem solving method. Since problem-solving in mathematics is a fascinating activity for most students that can improve motivation that make mathematics more interesting for many students. The objective of this study is to compare the achievement score of the students taught by problem solving method and by using traditional teaching method. The population of the study includes the ninth grade students of government school of Kathmandu district. Out of 23 students of two schools, 12 as experimental group from Gram Shikshya Mandir Higher Secondary School and 11 as control group from Shree Baluddhar Higher Secondary School. The experimental groups were taught by using problem solving method whereas the control groups were taught by traditional method. The test scores were calculated and analyzed in terms of their mean, variance and t-value. To measure the effectiveness of problem solving method in teaching mathematics, the researcher developed and administered an achievement test for both pre test and post test. The test scores were collected and descriptively analyzed by using different mathematical tools as mean, percentage and t-test. The findings of this study were presented after analyzing and interpreting the data.

Based on the interpretation and analysis of the data, the findings of this study proved that problem solving method was more effective than the usual traditional method. The students who were taught by using problem solving method were significantly better than that of the students taught by using traditional method.

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LIST OF SYMBOLS AND ABBREVIATIONS

AD	:	After the Death of Christ
BS	:	Bikram Sambat
N	:	Number
NCTM	:	National Council of Teacher of Mathematics
NO.	:	Number
SD	:	Standard Deviation
TU	:	Tribhuvan University
T1	:	Pre-test 1
T2	:	Post-test 2
T3	:	Pre-test 3
T4	:	Post-test 4
\bar{x}	:	Mean