AN ANALYSIS OF STUDENT'S ERROR IN SOLVING VERBAL PROBLEMS

A THESIS BY RAJENDRA ACHARYA

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

2015

LETTER OF CERTIFICATE

This is to certify Mr. Rajendra Acharya, a student of academic year 067/68 with campus roll no. 2430, thesis no. 1012, exam roll no. 281551 and T.U. Reg. number 9-2-284-220-2006 has been completed this thesis under my supervision for the period prescribed by the rules and regulation of Tribhuvan University, Nepal. The thesis entitles **An Analysis of Student's Error in Solving Verbal Problems** has been prepared based on the result of his investigation conducted during the period of 6 months. I hereby, recommend and forward that his thesis be submitted for the elevation as the partial fulfillment of the requirements to award the Degree of Masters of Education.

(Mr. AbatarSubedi) Supervisor (Mr. Laxmi Narayan Yadav) Head

Date:

LETTER OF APPROVAL

A thesis by Rajendra Acharya entitled **An Analysis of Student's Error in Solving Verbal Problems** has been approved in partial fulfillment for the requirement of Degree of Master of Education.

Committee of Viva-Voce

Signature

1.	Mr. Laxmi Narayan Yadav	
	(Head of Department)	
2.	Prof. Dr. Hari Prasad Upadhyay	
	(Member)	
3.	Mr. AbatarSubedi	
	(Supervisor)	

Date:

ACKNOWLEDGEMENT

First of all, I would like to express my heartiest thanks and very sincere gratitude to my respected teacher Mr. Abatar Subedi, Department of Mathematics Education, T.U. who provided fundamental ideas and techniques to carry out this research, as a research supervisor. Without his immense co-operation and regular encouragement, I would not have been able to present this dissertation in this form.

I am also extremely grateful to Department Head Mr. Laxmi Narayan Yadav, Department of Mathematics Education, T.U., for his inspiration preparing this thesis, Prof. Dr. Hari Prasad Upadhaya for delivering their valuable suggestion also to all my teachers and other faculty members also part of my gratitude including for their valuable co-operation, comments and suggestions to bring this research in this form. I would also like to express my special thanks to all principals, all staff specially mathematics teachers and all the students of related schools for helping me out in course of data collection for this research.

I would like to give special thanks to my dear friends Roshan Dhakal, Shajay Sharma, Dinesh Kumar Acharya, Pramod Phatak, Shree Krishna Shrestha and my brother Gokul Acharya. I would also like to thank my friends Dipendra Acharya and Suman Shrestha for their special support on grammar editing and computer work.

Rajendra Acharya

ABSTRACT

A propose of this study was to study the patterns of errors committed by the grade X students on solving verbal problems in simultaneous linear equations. The objectives of this study were to analyze the errors on the basis of a recognized theoretical base and to recommend some remedial measures to minimize such errors in simultaneous linear equations.

The sample in this study consisted of one hundred twenty-eight students. Mahankaleshwori HSS, Dhunibeshi English Boarding HSS and Bhuwaneshowri Secondary Schools were taken as a sample schools. This research was in survey in nature. This study was based on descriptive research design. Newman and Clements technique of error analysis were adopted as the theoretical base of this study. A test consisting of eight verbal problems from grade X Compulsory Mathematics were administered to the sample students to collect the required data. The collected answer sheets of the students were checked and errors on those were identified on the basis of Newman error analysis hierarchy. An interview with fifty students was taken to verify and explain the errors identified in the answer sheets and analyzed more errors hidden in the answer sheets.

The identified errors were classified into seven categories as described by Newman and Clements then frequency of each type of errors were tabulated. From the tabulated data total percentage of each type of error were calculated. The seven categories of the errors were reading error, comprehension error, transformation error, process skill error, encoding error, motivation error and carelessness error.

The study revealed that student had committed number of errors on solving verbal problems in simultaneous linear equations. The concentration of errors was seen on the transformation and encoding of the problem. The data show that student had felt difficulty in verbal problems. The implication that can be derived from this study is that the linguistic aspects of mathematics are all too often overlooked by the teachers and students.

TABLE OF CONTENT

LETTER OF APPROVAL	i
LETTER OF CERTIFICATE	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv

Chapters

I -	INTRODUCTION	1-11
	Background of the Study	. 1
	Statement of Problems	. 7
	Objectives of the Study	8
	Significance of the Study	8
	Delimitation of the Study	9
	Operational Definition of Terms	. 9
II -	REVIEW OF RELATED LITERATURE	11-14
	Theoretical Framework	13
III -	METHODS AND PROCEDURE	15-17
	Design of the Study	15
	Population of the Study	15
	Sample of the Study	15
	Tools of the Study	16
	Data Collection Procedures	17
	Data Analysis Procedure	17
IV -	ANALYSIS OF DATA AND INTERPRETATION OF RESULT	18-38
	Analysis of First Test Item	20
	Analysis of Second Test Item	22
	Analysis of Third Test Item	24
	Analysis of Fourth Test Item	26
	Analysis of Fifth Test Item	28

	Analysis of Sixth Test Item	30
	Analysis of Seventh Test Item	33
	Analysis of Eighth Test Item	35
V -	SUMMARY, FINDINGS, AND CONCLUSION	9-42
	Summary	39
	Findings	40
	Discussion	41
	Conclusion	41
	Recommendations for educational implications	42
	Recommendation for further study	42

REFERENCE

APPENDICES