

**EFFECTIVENESS OF CO-OPERATIVE
LEARNING IN TEACHING
MATHEMATICS TO STUDENT OF
CLASS VII**

D - 116

C

A Dissertation submitted to, Barkatullah University Bhopal in
part fulfillment of the degree of.

MASTER OF EDUCATION
1998-99



R.B.L.
SUPERVISOR

Dr. R.B.L. Soni
Sr. Lecturer,
R.I.E. Bhopal.

STUDENT

Sandhya Katiyar
M.Ed.
R.I. E. Bhopal.

REGIONAL INSTITUTE OF EDUCATION (NCERT)
SHYMLA HILLS, BHOPAL.

CERTIFICATE

Certified that the dissertation entitled Effectiveness of cooperative learning in teaching mathematics submitted by Sandhya Katiyar in part fulfillment of masters degree in education was undertaken in my supervision and this work has not been submitted by her for any degree in any other university.

R. L. Soni

Dr. Ram Bhajan Lal Soni
Sr. Lecturer in Education
Regional Institute of Education,
BHOPAL.

Date 26.2.99.....

ACKNOWLEDGEMENT

I express my deep sense of gratitude and sincere thanks to Dr. R.B.L. Soni senior lecturer in Education for his inspiring and Scholarly guidance which enabled me to complete this study. I wish to express my gratitude to Prof. G. Ravindra, Principal and Prof. M. Sen Gupta Dean of Instruction, Regional Institute of Education Bhopal. I am also thankful to Shri N.K, Mishra (H.M.), teachers and students of the shcool where this study was carried out.

Sandhya
Sandhya Katiyar
M.Ed. (Ele.Edu.)

Content

Chapter-I	INTRODUCTION	1
	1.0 Introduction	1
	1.2 Present situation	4
	1.3 Need and importance of the study	4
	1.4 Statement of the Problem	6
	1.5 Objectives of the study	6
	1.6 Hypotheses of the study	7
	1.7 Definitions of Key Terms	7
Chapter-II	REVIEW OF RELATED LITERATURE	
	2.1 Introduction	9
	2.2 Sources consulted for Review literature	9
	2.3 Studies related to cooperative learning in mathematics	10
	2.4 Studies related to cooperative learning in other fields	14
Chapter-III	METHODOLOGY	
	3.1 Introduction	20
	3.2 Research design	20
	3.3 Population	21
	3.4 Sample	21
	3.5 Variables	22
	3.6 Tools	23
	3.7 Pilot testing of the test	24
	3.8 Administration of Test	24
	3.9 Methods of data analysis	25



Chapter-IV	Analysis and Statements of results	26
Chapter-V	Findings, discussions and Implications	33
	5.1 Introduction	33
	5.2 Findings of the study	33
	5.3 Discussion and Interpretation of the results	34
	5.4 Implication of the study	38
	5.5 Limitation of the study	39
	5.6 Suggestions for further research	40
Chapter-VI	Summary and conclusion	41
Bibliography		44

Annexures

Annexure-(I)

Table No.	List of Tables	Page No.
3.4(A)	Sample of study	22
4.1	Breakdown of genders in experimental and control group	26
4.2	Pre-test scores of Experimental group	27
4.3	Pre-test scores of Control group	27
4.4	Post-test of Experimental group	28
4.5	Post-test of Control Group	28
4.6	Mean & SD values in Pre-test achievement scores (Experimental group only)	29
4.7	Mean & SD values in Pre-test achievement scores (Control group only)	29
4.8	Mean & SD values in Post-test achievement scores (Experimental group only)	30
4.9	Mean & SD values in Post-test achievement scores (Control group only)	30
4.10	Test of Hypothesis relating to effect of Cooperative Learning.	31
4.11	Test of Hypothesis learning of boys and girls of experimental group.	32

ABSTRACT

In the present study an attempt was made to investigate the effectiveness of cooperative learning in teaching mathematics to the student of class VII and compare its effectiveness with currently used teaching methods in the classrooms. The main objectives of the study were;

#To study the effectiveness of co-operative learning in mathematics as compared with traditional methods of teaching.

#To investigate the effectiveness of cooperative learning on boys and girls of class VII during mathematics teaching.

Corresponding to each of the objectives following hypotheses were formulated.

#Cooperative learning and traditional teaching methods have the same effect on the learning of students.

#Cooperative learning has the same effect on the learning of boys and girls of class VII.

Research design used in this study was pre-test post- test control group design. Method of sampling used was purposive sampling. The sample of the study consisted of 64 students of class VII from one school of Bhopal city. Out of these 64 students, 32 were boys and 32 were girls. The dependent variable was cooperative learning and independent variable was gender. Investigator made test was used for this research and pilot study was undertaken to establish reliability and validity of the test. Necessary modifications in the test were made and the test was administered both to the experimental and control groups prior to the study and soon after the completion of the study. The experimental group was exposed to treatment where as the control group was taught by traditional lecture method. The hypotheses were tested using t-test. The results obtained were;

Cooperative learning and traditional teaching methods have different effect on the learning of students.

Cooperative learning has the same effect on the learning of boys and girls.

The student who learnt through cooperative approach scored significantly higher than those who learnt through lecture method.