



A STUDY ON PEER TUTORING AND ACADEMIC ACHIEVEMENT OF IXth STANDARD STUDENT ON MATHEMATICS IN CUDDALORE DISTRICT

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Introduction:

"Truly, one never really knows a subject until one tries to teach it"

Education is a process which draws from within. Each child is born with some innate tendencies, capacities and inherent powers. Educations draw these powers out and develop them to the full.

High School Students:

The school of today is considered not only a place to acquire knowledge and information, but also viewed as a place where better opportunities are afforded to pupils for the development of their personalities. In all programmes of strengthening secondary education, understanding of pupils is by far the most important.

Need for the Study:

In most Indian classrooms, the existing teacher - student ratio limits the teacher's ability to instruct with each learner's Zone of Proximal Development, which is the range of knowledge. Psychological researches have proved that all children are born with distinct inherent capacities and powers. Education should draw and develop these native endowments. On account of the population explosion, schools in the developing countries are over-crowded and the factors like drilling, moulding and sharpening is done without any regard to individual differences, needs and aptitudes.

Significance of the Study:

The modern concept of education seeks to develop the inherent capacities of a child in the social environment. In the old summary of education was taken to mean as a process to thrust readymade titbits of knowledge into the mind of a child as if it was an empty vessel.

Statement of the Problem:

The purpose of teaching is to help the pupils learn. Each student learns, however, from his own efforts and experiences. Due to the heavy workload of the teachers, there is no chance for individualized instruction in the regular classes. Therefore, as an individualized instructional strategy, peer tutoring fulfils the needs of the slow learners. Maths can be particularly a frustrating and intimidating subject, and the student may not like it because he thinks that he is just not good at maths.

Scope of the Study:

The ultimate goal for this research activity is to produce a practical, economical and effective tutoring with a program for helping students adjust to the academic and social demands of school. The research is concerned with the finding out the effect of peer tutoring with student - to - student counseling in learning mathematics at standard IX level.

Objectives of the Study:

The following are the objectives of the study,

- To study the level peer-tutoring and academic achievement on mathematics of the IX standard students in cuddalore district.
- To study the significance of the difference between the following of sub-samples with respect to their peer-tutoring and academic achievement on mathematics of the IX standard students in cuddalore district.
- Gender (male/female)
- Type of family (nuclear / joint)
- Location of school (rural /urban)
- Types of school (Government / Aided)
- Community (OC/BC/MBC/[SC/ST])
- Religion (Hindu/Muslim/Christian)

Hypothesis of the Study:

In the light of the above the following null hypotheses have been formulated.

- The peer-tutoring and academic achievement on mathematics of the IX standard students is high.
- There is no significant difference between the following sub-samples with respect to their peer-tutoring

and academic achievement on mathematics of the IX standard students

- Gender (male/female)
- Type of family (nuclear / joint)
- Location of school (rural /urban)
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- Religion (Hindu/Muslim/Christian)

Definition of the Key Terms:

The operational definition of the important terms, used in the title of the problem is presented hereunder:

A Review of Related Literature:

Wynn and Cadet (1996) reviewed the use of six collaborative writing teaching methods at the post-secondary level. Disclosure, Peer writing, Peer Tutoring, work shopping, Co-authoring, and knowledge making were the six features of the collaborative methods used. It was noted that these techniques suggest their effectiveness in improving student writing.

Brady (1997) reported that four pre-school children with disabilities and four peers were taught to take turns tutoring each other on academic skills. All subjects' academic responses increased after Peer Tutoring.

Ediger (1998) suggested that classrooms should be organized for optimal pupil achievement. An area in the classroom should be designated for small group endeavours. Peer tutoring was recommended as one of the ways of students grouping.

Weber (1998) did a study on peer counselling. The result showed the use of peer counsellors in advising, and assisting exceptional children with school activities.

Ater (1999) designed a peer advisory consumer program for the elderly. It was a demonstration project using a volunteer peer advisory approach to consumer education for the elderly was developed which indicates the possibility of using a peer advisory system for employing lifetime consumer experiences of the elderly and of providing answers for continued societal involvement.

Methodology:

Operational Definitions:

- Academic achievement on mathematics
- Peer – tutoring
- Discussion of the variables
- Independent variables
- Dependent variable
- Personal variables

Tools Used:

The following tool has been used for collecting data.

- Attitude Scale to find out the student's attitude towards Peer Tutoring.
- Achievement Tests.

Sample:

The present study includes a sample of 260 high school students of different schools in Viruthachalam educational district in Cuddalore based on random sampling technique. The distribution of sample for this study is given in Table 1 to 6

Table 1: Sample on the Basis of Gender

S.No	Gender	Number
1	Male	142
2	Female	118
	Total	260

Table 2: Distribution of Sample on the Basis of Nature of Family

S.No	Type of Family	Number
1	Nuclear family	156
2	Joint family	104
	Total	260

Table 2 shows that the total 260 sample is distributed as 156 Nuclear family students and 104 joint family students studying in respect schools in respect of their nature of family.

Table 3: Distribution of Sample on the Basis of Location of School

S.No	Location of school	Number
1	Rural	4(160)
2	Urban	2(100)
	Total	260

Table 3 shows that the total 260 sample is distributed as 4 Rural school taken with 160 students, 2 Urban school taken with 100 students in respect of their Location of school.

Table 4: Distribution of Sample on the Basis of Type of School

S.No	Type of School	Number
1	Government school	4(160)
2	Aided school	1(50)
3	Private School	1(50)
	Total	6(260)

Table 4 shows that the total 260 sample is distributed as 4 Government schools should taken with 160 students, 1 Aided school should taken with 50 and 1 Private school should taken with 50 students in respect of Type of school.

Table 5: Distribution of Sample on the Basis of Community

S.No	Community	Number
1	OC	20
2	BC	50
3	MBC	90
4	SC/ST	100
	Total	260

Table 5 shows that the total 260 sample is distributed as 20 OC Students, 50 BC Students, 90 MBC students and 100 SC/ST students studying in high school in respect of their community.

Table 6: Distribution of Sample on the Basis of Religion

S.No	Religion	Number
1	Hindu	185
2	Muslim	15
3	Christian	60
	Total	260

Table 6 shows that the total 260 sample is distributed as 185 Hindu religion 15 Muslim religion and 60 Christian religion of high school students in respect of their religion.

The Analysis and Interpretation of the Data:

The data of the study involving 260 IX standard school students have been subjected to

- Descriptive analysis and
- Differential analysis

Mean and Standard Deviation for Peer-Tutoring and Academic Achievement on Mathematics of IX Standard Students Scores:

S.No	Sub-sample		Number	Mean	Standard Deviation
1	Gender	Male	142	17.47	4.8
		Female	118	17.93	4.65
2	Nature of family	Nuclear	156	18.86	4.82
		joint	104	17.22	4.56
3	Location of school	Rural	04(160)	18.87	4.44
		Urban	02(100)	18.78	4.82
4	Type of school	Government school	160	19.75	4.15
		Aided school	50	11.63	3.89
		Private school	50	11.63	3.89
5	Community	OC	20	14.63	4.15
		BC	50	18.87	3.18
		MBC	90	17.29	4.66
		SC/ST	100	19.24	4.44
6	Religion	Hindu	185	18.11	5.03
		Muslim	15	16.69	4.78
		Christian	60	18.93	2.86
	Total Sample		260	18.24	3.88

Findings and Conclusions:

Findings of the Study:

- Peer-Tutoring and academic achievement of IX standard students on mathematics is average. Peer-Tutoring and academic achievement of IX standard students on mathematics with respect to different sub-sample is average.

- Male and female primary school teachers do not differ significantly in their Peer-Tutoring and academic achievement.
- IX standard students on mathematics belonging to different family do not differ significantly in their Peer-Tutoring and academic achievement.
- IX standard students studying mathematics in the school located in rural areas and urban areas do not differ significantly in their Peer-Tutoring and academic achievement.
- IX standard students studying mathematics in Government school, Private and Aided school differ significantly in their Peer-Tutoring and academic achievement.
- IX standard students studying mathematics who belongs to different community significantly different Peer-Tutoring and academic achievement
- IX standard students studying mathematics who belongs to different religion do not significantly differ Peer-Tutoring and academic achievement

Suggestions for the Further Studies:

The same variable viz. peer-tutoring can be studied in different ways to strengthen the use of research for the future.

- A study of peer-tutoring of various States students can be conducted.
- A comparative study of Indian and Anglo- Indian peer-tutoring can be made.
- A comparative study of students from Tamil and English medium students can be made.
- Diagnostic studies regarding the academic achievement on mathematics of IX standard students could be attempted.
- Replication of the present study could be considered from the perspective of a larger sample.
- Attitude of parents towards their children's academic achievement on mathematics could be studied for better results.

Conclusion:

This study has brought to light that there is relationship between peer-tutoring Status and Academic Achievement on Mathematics. However, the investigator feels that a deeper study in this area require generalizing this idea. Students do differ among themselves with regard to their peer-tutoring Status well as their Academic achievement on Mathematics.

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