



ORIGINAL RESEARCH PAPER

Education

INFLUENCE OF ACHIEVEMENT MOTIVATION ON ACHIEVEMENT IN MATHEMATICS OF IX STANDARD BOYS AND GIRLS

KEY WORDS: Achievement Motivation, Achievement in Mathematics, IX Standard Students.

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ABSTRACT

This study was undertaken with the objective of identifying the level of Achievement motivation and Achievement in Mathematics of IX Standard students in Pondicherry region. A sample of 300 students was selected from nine schools in Pondicherry. An Achievement motivation questionnaire was used to collect the data. The study revealed that the level of Achievement motivation of IX Standard students is above average and there is high positive Correlation between Achievement motivation and achievement in Mathematics.

INTRODUCTION

We exist in a competitive world in which individuals are striving hard to achieve their goal. Future progress of the nation depends only on the progress of the students. Achievement as a whole depends on the students outperforming ability.

Kothari says, "The destiny of the nation is being shaped only in the classroom" (1966). Therefore the progress of the nation directly depends on the progress of the citizen. Our present system of education is achievement oriented.

Mathematics is a logical science. It is also an exact science with a highly organized and systematized body of knowledge. Its processes involve encoding and decoding of many concepts and abstractions. It is a "vehicle to train a child to think, reason and analyze and to articulate logically" (Ministry of Human Resource Development, 1986). Mathematics is taught for the training of the mind. Mathematics helps in developing the different faculties of mind like analytical thinking, divergent thinking, reasoning ability, observation capacity, rational thinking, judgement, precision, concentration, expression, and so on.

The purpose of teaching Mathematics is not only to enable the students to acquire mathematical skills and knowledge but teaching of Mathematics should result in the development of intellectual powers and habits.

NEED FOR THE STUDY

It is highlighted in National Policy on Education (1986), as follows- "Mathematics should be visualized as the vehicle to train a child to think, reason, analyze, and articulate logically. Apart from being a specific subject it should be treated as a concomitant to any subject involving analysis and meaning".

Knowledge of mathematics not only helps a student to acquire a great many mathematical facts, but also to apply these facts intelligently to discover new facts through efficient reasoning. Moreover, knowledge is of use only when one is able to apply it in new situations. The ability to apply one's knowledge requires power to think effectively. The subject of mathematics offers this knowledge profusely. Mathematics can be taken as a creative activity for students since it involves graphs, analysis and formula writing.

Mathematics in the real sense is a science of space and quantity that helps us in solving the problems of life that needs numeration and calculation. It provides opportunity for the intellectual calibre of the man's inherent powers. It is an exact science and involves high cognitive abilities and powers.

Hence this study is intended to study the achievement motivation and level of achievement in Mathematics of the IX standard students.

OBJECTIVES OF THE STUDY

1. To study the level of achievement motivation of IX standard students.
2. To study the level of achievement in Mathematics IX standard students.
3. To find out the relationship between achievement motivation and level of achievement in Mathematics of IX standard boys and girls.

STATEMENT OF HYPOTHESIS

The following hypotheses have been framed to attain the above said objectives:

1. The level of achievement motivation of IX standard students is high.
2. The level of achievement in Mathematics of IX standard students is high.
3. There is no significant relationship between achievement motivation and achievement in Mathematics of IX standard boys and girls.

METHODOLOGY

A normative survey was undertaken.

SAMPLE

The population of the study comprised of IX students from nine schools in Pondicherry. A sample of 300 students was selected from nine schools in Pondicherry by random sampling technique. Out of this 140 were boys and 160 were girls.

RESEACH TOOLS

The following tools have been used for collecting data.

1. Achievement motivation questionnaire by Bishwanath Mukherji.
2. Achievement in Mathematics in the Quarterly Exam

ANALYSIS AND INTERPRETATIONS

Mean, median, mode and standard deviation of Achievement motivation scores and Achievement in Mathematics for whole sample is given in Figure-1.

Figure-1

Variable	N	Mean	Median	Mode	S.D
Achievement motivation	300	19.58	19	19	5.01
Achievement in Mathematics	300	69.98	71	70	17.27

From Figure-1, it is concluded that the mean and standard deviation of achievement motivation scores of IX standard students are 19.58 and 5.01. It is found that the mean score of achievement motivation falls in the above average level. Therefore the level of achievement motivation of the entire sample is above average. Also, it is found that the mean, median, mode and standard deviation of Achievement in Mathematics are 69.68, 71, 70 and 17.27. The level of Achievement in Mathematics is found to be above average.

Correlation coefficient between achievement motivation and achievement in Mathematics is given in Figure -2.

Figure-2

Variable	N	Co-efficient of correlation (r)	Significance (at 0.05 level)
Achievement motivation	300	0.718	S
Achievement in Mathematics	300		

From Figure-2, it is found that the correlation co-efficient which is calculated to be 0.718 is greater than that of the table value at 0.05 level. Hence there is a significant relationship between Achievement motivation and achievement in Mathematics.

Mean and standard deviation of achievement motivation and Achievement in Mathematics category-wise

Figure-3

Variable	Category	Sub-groups	N	Mean	S.D	M.D	't' value	Sig. level at 0.05
Achievement motivation	Sex	Boys	140	19.14	4.6	0.73	1.27	NS
		Girls	160	19.87	5.39			
Achievement in Mathematics	Sex	Boys	140	67.51	18.37	4.9	2.5	S
		Girls	160	72.41	15.8			

From Figure-3 it is observed that the boys and girls do not differ in their Achievement Motivation but they differ in their Achievement in Mathematics. The mean differences between the above mentioned groups are significant at 0.05 level.

CONCLUSION

1. The level of achievement motivation of IX standard students is above average.
2. The level of Achievement in Mathematics of IX standard students is high.
3. The IX Standard boys and girls of Puducherry region do not differ significantly in their Achievement motivation.
4. The IX Standard boys and girls of Puducherry region differ significantly in their Achievement in Mathematics.
5. It is found that boys and girls nearly have equal level of achievement motivation and Achievement in Mathematics.

SUGGESTIONS FOR FURTHER RESEARCH

1. The study may be undertaken using the students of lower classes as subjects for the study.
2. Achievement motivation in relation to other variable such as personality, adjustments and intelligence may be undertaken.

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