

ACHIEVEMENT IN SCIENCE OF SECONDARY SCHOOL STUDENTS IN RELATION TO ACHIEVEMENT MOTIVATION

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ABSTRACT

Motivation is the very heart of the learning process. Adequate motivation not only sets in motion the activity, which results in learning, but also sustains and directs it. It has been stated, "Motivation arouses interest. Interest is the mother of attention and attention is the mother of learning. Thus to secure learning pupils must catch the mother, grandmother and great grandmother."

Motivation is an indispensable technique for learning. It energizes and accelerates the behavior of learner. Desirable changes in learner's behavior are only possible when a learner is properly motivated. No learning is possible without motivation. Thus achievement motive come into picture when an individual knows that this performance will be evaluated, that the consequence of this actions will be either a success or failure and that good performance will produce a feeling of pride in accomplishment. Here achievement motive may be considered as a disposition to approach success or a capacity for taking pride in accomplishment when success at one or another activity as achieved.

Many factors related to achievement motivation influence the performance of the students in the subjects. Hence this study attempts to know the relationship of achievement in science and achievement motivation among students. And the found result from this study was that there is significant relationship in achievement in science and achievement motivation

KEYWORDS:

INTRODUCTION

The main basis of achievement motivation is achievement motive. ie. a motive to achieve. Those who engage themselves in a task of account of an achievement motive are said to work under the spirit of achievement motivation. Therefore in order to understand the meaning of the term achievement motive it is essential to know in detail the nature and meaning of achievement motive.

Motives as we know, can be classified into various types, When a student desires to become monitor of his class or captain of the football team, he is said to possess power motive and his desire to seek the reward and approval of his teachers or parents is termed as approval motive. When one is concerned with making and retaining friendship with opposite sex, we say he has sex motive. Similarly the desire to improve his performance at school or to get a good grade or to become an engineer and so on is known as achievement motive.

In general Achievement motivation is expectancy of finding satisfaction in mastery of difficult and challenging performance whereas in the field of education in particular it stands for the pursuit of excellence.

Study was conducted with following objectives:

1. To Study the differences in achievement in science of boys and girls of IX Standard.
2. To Study the differences in achievement in science of boys and girls of IX Standard students studying in different types of schools.
3. To study the achievement in Science of IX standard students in relation to their different levels of Achievement motivation.

Hypotheses of the Study:

- There is no significant relationship between achievement in science and achievement motivation among the students of IX standard studying in Bangalore city.
- There is no significant difference in Achievement in science between IX Standard boys and girls.
- There is no significant difference in Achievement in science between IX Standard students studying in government and private schools.
- There is no significant difference in Achievement in science between IX Standard students belonging to low and moderate levels of Achievement motivation.
- There is no significant difference in Achievement in science between IX Standard students belonging to low and high levels of Achievement motivation.
- There is no significant difference in Achievement in science between IX Standard students belonging to moderate and high levels of Achievement motivation.
- There is no significant main and interaction effect of Achievement motivation and Gender on Achievement in science of IX standard students of Bangalore city.
- There is no significant main and interaction effect of Achievement motivation and Type of schools on Achievement in science of IX standard students of Bangalore city.
- There is no significant main and interaction effect of Gender and Type of schools on Achievement in science of IX standard students of Bangalore city.

Operational definitions:

Achievement in science: In the present study Achievement refers to the extent to which the students of IX standard grasping the subject matter of science.

Achievement Motivation : In the present study achievement refers to the extent to which the students of IX standard getting the motivations to achieve achievements in the subject matter of science.

Variables:

Dependent Variable as Achievement in Science.

Independent variable as Achievement Motivation.

Sample:

The Sample for the present study consists of 600 IXth standard secondary school students of Bangalore city. The sample was drawn using stratified random sampling technique from government, private secondary schools in Bangalore city.

Tools used for the Study:

The following are the tools developed based on the Standardization procedures and used by the researcher.

Achievement in Science test by- Researcher

Achievement Motivation Scale by – Deo Mohan..

Data collection Procedure:

The researcher administered the final tool for a sample of 600 students of IX standard drawn from different schools of Bangalore city. During data collection researcher himself visited the different schools after approaching and getting the permission for data collection from the head of the institutions, met the concerned class teachers of IX standard with the help of them researcher ready for the collecting the data from the students.

Statistical Technique Used:

The data analyzed by using the statistical techniques like t-test, co-efficient correlation and two way ANOVA.

Scoring Procedure :

The Achievement motivation scale consists of 50 items, out of them, 13 are negative items and 37 are positive items. This questionnaire is of the self-rating type and can be administered in a group with 5 points lo rate namely, Always, Frequently, Sometimes, Rarely and Never. It has no time limit. The scoring device was simple stencil type. Two stencil keys are to be used for scoring, one for positive items and one for negative items. A positive item carries the weights of 4, 3, 2,1 and 0 respectively for the categories of always, Frequently, Sometimes, Rarely and Never. The negative item is to be scored 0, 1, 2, 3 and 4 for the same categories respectively that are given above. The total score is the summation of all the positive and negative item scores. This is a quick scoring self-administered scale, which is also quick in administration and very easy for use in administration as well as scoring.

Analysis and Interpretation:

HYPOTHESIS-01:

There is no significant relationship between achievement in science and achievement motivation among the students of IX standard studying in Bangalore city.

Table-01: Variables, Number, df, Co-efficient of Correlation values and level of significance between achievement in science and achievement motivation.

Variables	N	df	r-value	Level of significance
Achievement in science	600	598	0.473**	0.01
Achievement Motivation				

It is observed from the above table that a positive relationship is found between achievement motivation and achievement in science among secondary school students. The value is tested for its significance using 'r'. The 'r' value 0.473 is found to be significant at 0.01 level of significance. It is positively moderate correlation. Therefore the null hypothesis rejected. Hence, it is inferred that there is a significant relationship between achievement motivation and achievement in science of IX standard students. Thus it is concluded that achievement motivation and achievement in science are positively related.

Table-02: Number, Mean, SD, and t-value of achievement in science scores between gender, type of schools and different levels of Achievement motivation among IX standard students.

Variables	N	Mean	SD	t-value	Levels of Significance.
Boys	346	30.13	10.144	5.269**	0.01
Girls	254	34.54	10.104		
Govt.	200	27.59	8.130	7.736**	0.01
Private	400	34.20	10.642		
Low	155	25.25	7.496	7.383**	0.01
Moderate	292	31.97	9.928		
Moderate	292	31.97	9.928	7.202**	0.01
High	153	38.90	9.067		
Low	155	25.25	7.496	14.408**	0.01
High	153	38.90	9.067		

Major important findings of the Study:

1. There is a significant difference in Achievement in Science between IX standard boys and girls ($t = 5.269$) of Bangalore city.
2. There is a significant difference in Achievement in Science between IX standard students studying ($t = 7.736$) in govt. and private schools of Bangalore city.
3. There is a significant difference in Achievement in Science between IX standard students belonging to low and moderate ($t = 7.383$) levels of Achievement motivation.
4. There is a significant difference in Achievement in Science between IX standard students belonging to moderate and high ($t = 7.202$) levels of Achievement motivation.
5. There is a significant difference in Achievement in Science between IX standard students belonging to low and high ($t = 14.408$) levels of Achievement motivation.
6. There is a significant relationship between achievement in science and Achievement motivation ($r = 0.473$) among the students of IX standard studying in Bangalore city.

Conclusions of the Study:

The interpretation of the results prompted the researcher to draw the following important Conclusions.

1. The girls of IX standards have better Achievement in science than boys of IX Standard.
2. The students of IX standard studying in private schools have better achievement in Science than the students studying in Govt. Schools.
3. Achievement Motivation has main effect on Achievement in science among students of IX standard. The student belonging to high group of Achievement Motivation performed better in science than the students belonging to moderate and low group of Achievement Motivation.
4. Achievement Motivation and Gender together has an interaction effect on achievement in science among the students of IX standard.
5. Achievement Motivation and Type of Schools together has an interaction effect on achievement in science among the students of IX standard.

Hence, it is concluded that Achievement Motivation is one of the factors that affect much towards the achievement in science. The students possessing high Achievement motivation achieve better in science than the students possessing low Achievement motivation. There is a positive relationship between achievement motivation and achievement in science. Therefore, it is necessary for teachers to enhance the achievement motivation among the secondary school students.

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