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A Study of Achievement in Mathematics of Ix Class Students With Management And Locality

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ABSTRACT

Achievement may be defined as a change in the behavior of students in a desired direction. It is an important and essential constituent in the process of evolution. 'Achievement' means one's learning attainments proficiencies, accomplishments etc. As achievement test is a formal assessment the test helps teachers to understand the level of comprehension of the students and helps him to estimate the capabilities of the students. The main objective of the present study is to study the influence of management and locality on the achievement in mathematics of IX class students. Achievement in mathematics test developed by Naveen, P (2010) was adopted for the present study. A sample of 300 IX class students representing all categories of secondary schools in Chittoor District by following the standardized procedures. 't' and 'F' (ANOVA) tests were employed for analysis of the data. There is significant influence of management and locality at 0.01 level of significance on the achievement in mathematics of IX class students.

KEYWORDS : Achievement, mathematics, management, locality and IX class students.

INTRODUCTION

Mathematics plays a very important role in the life of human beings. Without the knowledge of mathematics, it is difficult to learn other school subjects, more specifically science subjects. In the modern scientific world, mathematics occupies important place in the school curriculum. Hence the achievement in mathematics is crucial for every pupil, studying in the school. If the teacher teaches in a planned and methodical way it is expected that achievement of children is certainly going to be satisfactory. In the study of mathematics, the emphasis should be more on the development of general problem-solving ability rather than finding a solution to a particular problem. Knowledge is useful, only when one is able to apply it effectively. The ability to apply it, in turn, needs power to think effectively. Therefore the pupil should attack problems logically in the spirit of discoverer.

The progress and improvement of scientific method and mathematics are linked to the prosperity of whole human civilization. To arouse and maintain the interest of students in mathematics, therefore, the elements of curiosity, motivation, imagination, novelty, originality and usefulness are required. 'Interest' is a motivating force that arouses, sustains and regulates concentrated efforts. There is a need and accountability on the part of the teacher to arouse this 'interest' in pupils.

Achievement is considered as a key factor for personal progress. The whole system of education revolves around academic achievement. Academic achievement depends on a number of variables. Certain researchers found gender, literacy level of the family and family income as contributors significantly to academic achievement. A great deal of research work has been done to assess the relationship of academic achievement with intelligence, anxiety, stress and other variables. In recent years, society's interest and concern for academic achievement has increased. In an adolescent's social system, academic achievement is gaining a prominent value, particularly in India.

The academic achievement represents the out come of a complex variety of factors and cannot be traced to the existence of only one personal attribute. Academic achievement, as currently is used a fuzzy term that may mean any one of a dozen unspecified things. The sum total of information a student has at his command, when he finishes a course of instructions, the getting of a passing grade in a course regardless of what may lie behind the grade or the score on a test that has 'performance' in its title.

REVIEW OF LITERATURE

Srinivasan and Arivudayappam (2004), Krishna Reddy, D (2008), Naveen, P (2010), Padmini (2010), Siddi Raju (2010), Sujatha (2011), Sekhar, K (2012), Ravi, S (2014) and Shaik Khadar Valli (2015) reported that management of individuals do have significant difference on achievement. However, Manjuvani and Mohan (2002), Anice James and Marice (2004), Laxmidhar Behera and Sushant Kumar Roul (2004) and Shahpur Nagappa and Panchalingappa (2004) reported that management of individuals do not have significant difference on achievement.

Gakhar and Aseema (2004), Mehera (2004), Dwivedi R.D (2005), Krishna Reddy, D (2008), Padmini (2010), Prabhu Swamy (2010), Siddi Raju (2010) and Sekhar, K (2012) reported that locality of individuals do have significant difference on achievement. Anice James and Marice (2004), Panchalingappa (2004), Naveen, P (2010) and Manpreet Kaur, Ram Niwas and Rai, V.K (2015) reported that locality of individuals do not have significant difference on achievement.

Scope of the Study: The main intention of the present study is to find the relation of achievement in mathematics of IX class students with management and locality.

Objective of the Study: To study the impact of management and locality on the achievement in mathematics of IX class students.

Hypotheses of the study

There would be no significant impact of 'management' on the achievement in mathematics of IX class students.

There would be no significant impact of 'locality' on the achievement in mathematics of IX class students.

Tools for the Study

The achievement in mathematics test was adopted from **Naveen, (2010).** The tool was highly reliable for the investigation. The total items are 100. For the purpose of scoring one mark is awarded for each correct answer and the total marks obtained by each student are marked on the right top corner of the sheet.

Personal data regarding the student – 1. Name, 2. Management, 3. Locality.

Data Collection

The sample for the investigation consisted of 300 IX class students in Chittoor district. The stratified random sampling was applied in three stages. The first stage is management i.e. Government, Private and aided and second stage is locality i.e. rural and urban and third stage gender i.e. boys and girls. It is a 3X2X2 factorial design with 300 sample subjects. The investigator personally visited schools with the permission of the head masters of the schools. The IX class students who attended to the school on the day of collection of data are considered

for the purpose of the investigation. It was provided to the concerned IX class students of the schools. The IX class students were given necessary instructions about the instruments and motivated to respond genuinely to all the items. The achievement in mathematics test and personal data sheet were administered. The data on each variable in the investigation is properly coded to suit for computer analysis. The analysis was carried out on the basis of objectives of the investigation and hypotheses formulated by employing appropriate statistical techniques. The inferential statistical technique 't' and 'F' (ANOVA) tests were employed to test hypotheses.

RESULTS AND DISCUSSION

Management

The relationship of achievement in mathematics of IX class students with their management is studied in the present investigation. On the basis of management, the IX class students are divided into three groups. The Government school students form with the Group – I, Group – II forms with the Private school students and Group – III forms with the Aided students. The corresponding achievement in mathematics of IX class students of the three groups were analyzed accordingly. The mean values of achievement in mathematics of IX class students for the three groups were tested for significance by employing 'F' - test. The following hypothesis is framed.

Hypothesis – 1

There would be no significant impact of 'management' on the achievement in mathematics of IX class students.

The above hypothesis is tested by employing 'F' - test. The results are presented in **Table – 1.**

Table – 1: Influence of management on the achievement in mathematics of IX class students

S. No.	Management	N	Mean	S.D.	'F' – Test
1.	Government	100	55.88	11.03	7.584**
2.	Private	100	50.98	14.91	
3.	Aided	100	47.69	17.92	

** Indicates significant at 0.01 level

It is found from the **Table – 1** that the computed value of 'F' (7.584) is greater than the critical value of 'F' (4.680) for 2 and 297 df at 0.01 level of significance. Hence the **Hypothesis – 1 is rejected** at 0.01 level. Therefore it is concluded that the management has significant influence on the achievement in mathematics of IX class students.

Locality

The relationship of achievement in mathematics of IX class students with their locality is studied in the present investigation. On the basis of locality, the IX class students are divided into two groups. The rural students form with the Group – I and Group – II forms with the urban students. The achievement in mathematics of IX class students of the two groups were analyzed accordingly. The achievement in mathematics of IX class students for the two groups were tested for significance by employing 't' - test. The following hypothesis is framed.

Hypothesis – 2

There would be no significant impact of 'locality' on the achievement in mathematics of IX class students.

The above hypothesis is tested by employing 't' - test. The results are presented in **Table – 2.**

Table – 2: Influence of locality on the achievement in mathematics of IX class students

S. No.	Locality	N	Mean	S.D.	't' - Test
1.	Rural	150	55.58	12.12	4.802**
2.	Urban	150	47.40	16.94	

** Indicates significant at 0.01 level

It is found from the **Table – 2** that the computed value of 't' (4.802) is greater than the critical value of 't' (2.58) for 1 and 298 df at 0.01 level of significance. Hence the **Hypothesis – 2 is rejected** at 0.01 level. Therefore it is concluded that the locality has significant influence on the achievement in mathematics of IX class students.

Findings: There is significant influence of management and locality at 0.01 level of significance on the achievement in mathematics of IX class students.

Conclusions: In the light of the findings, the following conclusions are drawn. Management, locality have significant influence on the achievement in mathematics of IX class students.

EDUCATIONAL IMPLICATIONS

The findings of the present research have raised some important questions related to the educational needs of the students with special reference to their achievement in mathematics of IX class students.

Management is the highly influenced in achievement in mathematics of IX class students. Government students have better performance than the Aided students. The administrators to provide facilities for the aided school students.

Locality is highly influenced in achievement in mathematics of IX class students. Rural students have better performance than the urban students. The administrators to provide facilities for the urban students.

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