A Study of Mathematical Achievement of VIII Class Students of Kangra District

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Abstract: *Mathematical Achievement is the competency shown by the student in the subject mathematics. Its measure is the score on an achievement test in mathematics. The present study is based on the mathematical achievement of 8TH class students of Secondary School in Kangra District. A sample comprised of 200 students studying in class 8TH was selected randomly from Secondary schools of Kangra district. The research tool developed and standardized by Dr. Ali Imam and Dr. Tahira Khatoon was administered to the students. A descriptive research method was used in the present research. Statistical techniques Mean, S.D., and t-test were used to analyze the data. The result of the study shows that there is a significant difference between the mathematical achievements of class 8th students of secondary schools on the basis of their sex and social belongingness, however, it is interesting to know that rural male and urban male students are almost similar in their mathematical achievement scores.*

Keywords: Mathematical achievement, social belongingness, Parental education, Secondary School Students.

I. INTRODUCTION

In the 21st century, mathematics has become the backbone for the prosperity in each and every field of life. Mathematics is well known as a father of all sciences. It is impossible to think about any scientific study without mathematics. Mathematics is the knowledge of 3Rs i.e. reading, writing and arithmetic. Each student in his day-to-day life has to achieve certain vital goals and objectives. Mathematics works as a base-camp to achieve these objectives. Every stage of education has its own importance. Secondary education lays the basic foundation for all types of higher education. Successful achievement in mathematics at Secondary stage, especially 8th grade is prerequisite for better academic achievement in higher stage. Mathematics achievement is an essential part of the academic achievement in the modern era. It is the key to success in many professions.

II. OPERATIONAL DEFINITION OF MATHEMATICS ACHIEVEMENT

Mangal (2008): Defined that, "An achievement test is essentially a tool or device of measurement that helps in ascertaining the quantity and quality of learning attained in a subject of study or group of subjects after a period of instruction by measuring the present ability of the individual concerned."

Mathematical achievement is the competency shown by the student in mathematics. It is the result of acquired knowledge or information, understanding, skills and techniques developed in the subject of mathematics in a particular stage. Its measure is the score on the achievement test in mathematics.

III. STATEMENT OF THE PROBLEM

"A study of mathematical achievement of Secondary School Students of Kangra District."

IV. OBJECTIVE OF THE STUDY

To study the mathematical achievement of class 8th students of Secondary Schools on the basis of their sex and social belongingness.

V. RESEARCH HYPOTHESES

1. There is no significance difference in mathematical achievement of class 8th students on the basis of sex.
2. There is no significance difference in mathematical achievement of class 8th students on the basis of their social belongingness.
3. There is no significance difference in mathematical achievement of class 8th male students on the basis of social belongingness.
4. There is no significance difference in mathematical achievement of class 8th female students on the basis of their social-belongingness.

- **Method:** The descriptive or survey research method was used for present research work.
- **Population of the study**: All the students studying in class 8th of government and private Secondary schools of Kangra District of Himachal Pradesh.
- **Sample and sampling method**: - For the present study a representative sample of 200 students of class 8th from government and private Secondary Schools in Kangra district of Himachal Pradesh was selected randomly.
- **Research tool**: The research tool developed and standardized by Dr. Ali Imam and Dr. Tahira Khatoon was administered to the students in the present study.
- **Statistical methods**: In order to attain the objectives of the study, the investigators used Mean, S.D., and t-test" technique.
- **Analysis and interpretations of data**: Table 1: Comparison of mean mathematical achievement scores of class 8th from government and private Secondary Schools of Kangra district of Himachal Pradesh on the basis of sex.

Data presented in Table 1 reveal that there exists statistically significant difference between mathematical achievement mean scores of male and female students class 8th from government and private Secondary Schools of Kangra district of Himachal Pradesh. It means that male students have better achievement in mathematics than female students.

Social belongingness	N	M	SD	t-Ratio	df	Level of Significance
Rural	140	35.85	6.25	3.98	198	0.05
Urbane	60	64.26	7.98			

Table 2: Comparison of mean mathematical achievement scores of class 8th from government and private Secondary Schools of Kangra district of Himachal Pradesh on the basis of their social belongingness.

Sex	N	M	SD	t-Ratio	df	Level of Significance
Rural Male	56	36.85	5.25	2.98	138	0.01
Rural Female	84	65.26	4.98			

Data represented in the Table 2 reveals that there exists a statistically significant difference (t=3.98) between rural and urban students' mathematical achievement mean scores of class 8th from government and private Secondary Schools of Kangra district of Himachal Pradesh. It means that urban students have more or less similar achievement in mathematics than rural students. However, the mathematical achievement mean scores of rural female students (M=65.26) were founded higher than rural students (M=36.85).

Table 3: Comparison of mean mathematical achievement scores of male students of class 8th from government and private Secondary Schools of Kangra district of Himachal Pradesh on the basis of their social belongingness.

Sex	N	M	SD	t-Ratio	df	Level of Significance
Urban Male	32	34.85	4.95	1.98	60	0.01
Urban Female	28	63.56	3.98			

Table 3 reveals that there exists no significant difference between the mathematical achievement mean scores of rural male and urban male (t-=1.21). It means that rural male and urban male students class 8th from government and private Secondary Schools in Kangra district of Himachal Pradesh have more or less similar in their mathematics achievement. However, the mathematical achievement mean scores of urban male students (M=34.85) were founded higher than urban female students (M=63.56).

VI. SUGGESTIONS

1. The present study focuses on only government and private schools. It can be done in government, Government aided, government-unaided, private, missionary and charitable schools of Kangra district of Himachal Pradesh.
2. Similar type of study can be done in the higher secondary level of education.
3. An experimental study can also be done in this area.
4. A Co relational and comparative study can also be done between the student's mathematical achievement and other independent variables.

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