



## ATTITUDE TOWARDS MATHEMATICS OF CLASS 11<sup>th</sup> STUDENTS WITH REFERENCE TO GENDER, RESIDENTIAL BACKGROUND AND TYPE OF SCHOOL

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### ABSTRACT

The present study was conducted to study Attitude towards Mathematics of Class 11<sup>th</sup> Students with reference to Gender, Residential Background and Type of School. Attitude towards mathematics was dependent variable and Gender, Residential Background and Type of School were treated as Independent variable. Descriptive survey method was used for the study. Purposive Sampling technique was used to select the sample for the study. Sample for the study comprised of 434 boys and girl student, studying in class 11<sup>th</sup> in different Government and Private schools and were residing in different Rural and urban area of Bilaspur Chhatisgarh. Attitude Towards Mathematics Scale' (ATMS-Gr) by S.C.Gakkar and Rajni (2012) was used to know about the attitude towards mathematics of class 11<sup>th</sup> students. The data were analyzed with the help of independent sample t-test. The findings of the study revealed that there was significant difference in Attitude towards Mathematics of boys & girls students of class 11<sup>th</sup>. The attitude towards Mathematics of boy's student was found more positive than girl students. There was found no significant difference in Attitude towards Mathematics of class 11<sup>th</sup> students residing in rural and urban areas of Bilaspur. Further there was also found no significant difference in Attitude towards Mathematics of private and government school students of class 11<sup>th</sup>.

### KEYWORDS

Attitude towards Mathematics, Class 11th Students, Type of school, Residential background

### INTRODUCTION

Mathematics has occupied almost all spheres of human life and living. The National Policy on Education (NPE 1986) says, "Mathematics should be visualized as the vehicle to train a child to think reason, analyze and articulate logically". Also, The National Council for Teaching Mathematics (NCTM, 2000) states that developing a positive attitude toward learning mathematics is an important aspect of a student's learning experiences. Attitude towards mathematics plays a crucial role in the teaching and learning processes of mathematics. The Mathematical attitude also plays a major role in molding a child's character and in selecting a career deciding course in Mathematics. So, every student of school education should possess good mathematical attitude. It effects Students achievement in Mathematics. The teaching method, the support of the structure of the school, the residential background and student's attitude towards school, affect the attitude towards mathematics so, Attitude towards mathematics is a very significant concern of the process of mathematics education.

### NEED OF THE STUDY

Mathematics educator has long recognized that attitude towards mathematics are among the one important out comes, which should result from mathematics teaching. Attitude is really the disposition of an individual to learn and to develop some proficiency in some particular area. A child under pressure of parents or, teachers selecting a professional course, will be a failure in that area without attitude in that field. So it is the responsibility of teachers and parents to guide children according to their attitude. Knowledge of student's attitude can enable the teacher to provide them adequate vocational training at school and to help them prepared for suitable careers in future life and also to change the attitude of students by making the mathematics as an easier subject. In this context, **Rosaly, A. (1992)** found that the attitude towards mathematics and their achievement are highly correlated. **Moss, J. V. (1991)** has also found that students placed in gifted classes had more positive attitudes towards mathematics scoring significantly higher when compared to all other. After 10 years of school-study, a student has his own view or opinion about any subject. They choose their group as science (mathematics group or biology group). So, the investigator decided to check the attitude

towards mathematics of class 11<sup>th</sup> student with reference to gender, residential back-ground and type of school.

### VARIABLES

**Independent variable:** Gender, Residential Background and Type of School

**Dependent variable:** Attitude towards mathematics

### OBJECTIVES

1. To compare mean scores of attitude towards mathematics of boys and girls of class 11<sup>th</sup>.
2. To compare mean scores of attitude towards mathematics of rural and urban residential students of class 11<sup>th</sup>.
3. To compare mean scores of attitude towards mathematics of government and private school students of class 11<sup>th</sup>.

### HYPOTHESES

**H01:** There will be no significant difference between mean scores of attitude towards mathematics of boys and girls of class 11<sup>th</sup>.

**H02:** There will be no significant difference between mean scores of attitude towards mathematics of rural and urban residential students of class 11<sup>th</sup>.

**H03:** There will be no significant difference in mean scores of attitude towards mathematics of government and private school students of class 11<sup>th</sup>.

### METHOD

Descriptive Survey method was used in the study.

### POPULATION

Students studying in class 11<sup>th</sup> of Bilaspur district in Chhattisgarh were considered as population of the present study.

### SAMPLE

Sample of the study consisted of 434 boy and girl students, studying in class 11<sup>th</sup> in different Government and Private school and were belongs to Rural and Urban residential background. In present study, purposive sampling technique was adopted.

### TOOL

ATTITUDE TOWARDS MATHEMATICS SCALE (ATMS-Gr) prepared

by Dr. Gakhar and Rajni, 2012 was used to measure the attitude of the student towards mathematics.

### STATISTICAL TECHNIQUE

The data were analyzed with the help of Independent sample t-test. For t-value, mean and standard deviation were calculated.

### RESULTS AND INTERPRETATION

**Table 1: Gender wise M, SD and t-value of Attitude towards mathematics**

Gender	M	SD	N	t-value
Boys	187.84	18.75	212	2.40*
Girls	183.78	16.3	222	

\*Significant at 0.05 level of significance

From the table no. 1, it can be seen that the t-value is 2.40 which is significant at 0.05 level of level of significance with  $df = 432$ . It indicated that the mean score of Attitude towards Mathematics of Boys and Girls do differs significantly. In this context, the null hypothesis that there will be no significant difference in the mean scores of Attitude towards Mathematics of Boy and Girls Students of class 11<sup>th</sup> is rejected. Further the mean scores of Attitude towards Mathematics of boys is 187.84 which is significantly higher than girls whose mean scores is 183.78. It may therefore be said that boys were found to have significantly higher attitude towards mathematics in comparison to girls. The present finding is supported by the finding of Norman (2005) who found that boys held more positive attitude towards science and mathematics than girls.

**Table 2: Residential Background wise M, SD and t-value of Attitude towards mathematics**

Residential Background	M	SD	N	t-value
Rural	186.47	19.59	218	0.84
Urban	185.06	15.43	216	

From the table no. 2, it is evident that the t-value is 0.84, which is not significant at 0.05 level of significance with  $df = 432$ . It indicates that mean score of Attitude towards Mathematics of Rural and Urban students do not differ significantly. In this context the null hypothesis that there will be no significant difference in the mean scores of Attitude towards Mathematics of Rural and Urban students of class 11<sup>th</sup> is not rejected. It may therefore be said that Rural and Urban students both, were found to have Attitude towards Mathematics to same extent. The present finding is supported by the finding of Ravanan, R. and Julie, Blessing M. (2012) who has found that there is no significant difference in attitude towards mathematics of class 11<sup>th</sup> standard student, owning to difference in their region.

**Table 3: Type of school wise M, SD and t-value of Attitude towards mathematics**

Type of School	M	SD	N	t-value
Private	185.52	17.43	213	0.29
Government	186.00	17.87	221	

From the Table 3, it is evident that the t-value is 0.29, which is not significant at 0.05 level of significance with  $df=432$ . It indicates that mean scores of Attitude towards Mathematics of Private and government school students do not differ significantly. In this context, the null hypothesis that there will be no significant difference between scores of attitude towards mathematics of private and government school students of class 11<sup>th</sup> in Bilaspur is not rejected. It may therefore be said that private and government school students both, were found to have Attitude towards Mathematics to same extent.

### FINDINGS AND DISCUSSION

(1) The attitude towards mathematics of boy student is more positive than girl student. Boys have significantly higher attitude towards mathematics in comparison to girls. It means that Gender difference has an impact on the attitude of students towards Mathematics in Bilaspur. It may be because; boys are more inclined

towards mathematics than females on being the male dominated domain. It is found that at higher secondary level most of girls don't actively participate in mathematics classes due to their poor perceptions about mathematics. It's a common observation that at higher levels girls take mathematics quite lesser than the boys, because they perceive it as a male domain.

(2) Rural and Urban students both, were found to have Attitude towards Mathematics to same extent. Residential background has no impact on the attitude of students towards Mathematics in Bilaspur.

(3) Private and government school students both were found to have Attitude towards Mathematics to same extent. It also shows that type of School has no impact on the attitude of students towards Mathematics in Bilaspur. Type of school doesn't affect mathematical attitude. It may be because; Interest and attitude in the subject are the special predictors for the students participation, perception, view point, confidence in own ability and success in the subject.

### EDUCATIONAL IMPLICATION

In present study, Boys have more positive attitude towards mathematics than girls. This finding should enlighten educational authorities to devise instructional strategies across the curriculum to enhance the Mathematics attitude of girl students as well as boy's students. The government as well as aided educational institution should take steps to develop the attitude of students.

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