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Education

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A STUDY OF MATHEMATICAL ATTITUDE OF SECONDARY SCHOOL STUDENTS

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ABSTRACT

The attitude towards mathematics is just a positive or negative emotional disposition towards mathematics. The present study is based on the mathematical attitude of X class students of Secondary School in Bageshwar District. A sample comprised of 243 students studying in class X was selected randomly from Secondary schools of Bageshwar 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 attitude of class X 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 attitude scores.

Introduction:

Mathematics is an important area in the field of education for the students of secondary level. Mathematics is considered as a major and difficult subject at secondary level. Almost in all walks of life, there is use of mathematics. Students often struggle to see applications of mathematics. It was often seen that, students of secondary level possess a feeling of hatred and dislikes towards mathematics and feel that it is a boring subject.

Review of the Related Literature:

Studies of **Hilton and Kolhe (1985), Subrata (2007)** found that boys have significantly better and positive attitude towards mathematics. While studies of **Sundarajan and Dhandapani (1991), Deepa (2012)** found that girls have significantly better and positive attitude towards mathematics. Studies of **Desai (1973), Wilson (2008)** found no significant gender difference on the variable of attitude towards mathematics. Studies of **Mehra (2004)** found urban students significantly better than rural students on the variable mathematical attitude or attitude towards mathematics.

Definition of Mathematics attitude:-

According to **Good (1973)** "Attitude is readiness to react towards or against some situation, person or thing or sentiment to a particular degree of intensity."

Based on the above definition, mathematical attitude may be defined as set of emotionally toned and a generalized reaction of an individual to act for or against the subject of mathematics. The attitude towards mathematics is just a positive or negative emotional disposition towards mathematics.

Statement of the Problem:-

"A study of mathematical attitude of Secondary School Students of Bageshwar District."

Objective of the study:-

To study the mathematical attitude of class X students of Secondary Schools on the basis of their sex and social belongingness.

Research hypotheses:-

1. There is no significance difference in mathematical attitude of class X students on the basis of sex.
2. There is no significance difference in mathematical attitude of class X students on the basis of their social belongingness.
3. There is no significance difference in mathematical attitude of class X male students on the basis of social belongingness.
4. There is no significance difference in mathematical attitude of class X 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 X of government and private Secondary schools of Bageshwar District.

Sample and sampling method:-

For the present study a representative sample of 243 students of class X from government and private Secondary Schools in Bageshwar district 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 techniques.

Analysis and interpretations of data:-

Table 1:- Comparison of mean mathematical attitude scores of class X from government and private Secondary Schools of Bageshwar district on the basis of sex.

Sex	N	M	S.D	t-ratio	d.f.	Level Sig.
Male	116	80.98	15.09	4.04	243	.01
Female	127	73.22	14.74			

Data presented in Table 1 revels that male student were found higher in their mean mathematical attitude scores than female students. The difference was found statistically significant at .01 level of significance (t=4.04).

The reason for the above results may be due the fact that male students have higher interest and confidence in mathematics as compared to the female students

Table 2:- Comparison of mean mathematical attitude scores of class X from government and private Secondary Schools of Bageshwar district on the basis of their social belongingness.

Social belongingness	N	Mn	S.D	t-ratio	d.f.	Level of significance
Rural	180	75.19	15.72	2.19	241	0.05
Urban	63	79.56	15.75			

Data presented in Table 2 revels that rural and urban student of class X were found to differ in their mean mathematical attitude scale scores. The difference was found statistically significant at .05 level of significance (t=2.19).

The reason may be that urban students have much more and better facilities than provided to rural students.

Table 2.1:- Comparison of mean mathematical attitude scores of male students of class X from government and private Secondary Schools of Bageshwar district on the basis of their social belongingness.

Social Belongingness	N	M	S.D.	t-ratio	d.f.	Level of significance
Rural male	89	79.56	15.76	1.59	114	Not Significant
Urban male	27	84.72	14.24			

Data represented in the Table 2.1 reveals that there exist no significant difference between the mathematical attitude mean scores of rural male and urban male (t=1.21).

Table 2.2:- Comparison of mean mathematical attitude scores of class X female students on the basis of their social belongingness.

Social Belongingness	N	M	S.D.	t-test	d.f..	Level of significance
Rural females	91	70.73	14.88	3.76	125	0.05
Urban females	36	80.05	12.48			

Data presented in the Table 2.2 reveals that there exists statistically significant difference (t=2.22) between the mathematical attitude mean scores of rural female and urban female students of class X from government and private Secondary Schools in Bageshwar district.

Findings and conclusions of the study:-

The present study shows that:

1. The male students of class X standard have more positive attitude in mathematics than female students of class X standard.
2. The urban students have more positive attitude in mathematics than rural students.

2.1 The rural male and urban male students of class X have more or less similar in their mathematics attitude.

2.2 The urban female students of class X have better attitude in mathematics than rural female students of class X.

Educational Implication:-

It is recommended that to develop natural urge among students to lean mathematics and to develop positive attitude towards mathematics. The teachers and parents should give motivation to enhance attitude of students in mathematics.

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