ATTIUTDE TOWARDS MATHEMATICS OF THE IX STANDARD STUDENTS IN ADILABAD DISTRICT OF TELANGANA

PUPPALA RAMULU
Ph.D., Research Scholar,
SRTM University,
Nanded, India.

Dr. D.M. MUGALE
Principal,
Dr. Shivling Shivacharya Maharaj Pratishtans College of Education,
Affiliated to SRTM University Nanded, India.
Ahmedpur.

Abstract

The purpose of this study is to determine the attitude towards mathematics of the IX standard students studying in the different types of higher secondary schools in adilabad district of Telangana. Random sampling technique has been used in the selection of the sample of as many as 1000 IX standard students and the attitude towards mathematics scale constructed and validated by the authors has been distributed to them and the responses were collected and computed according to the objectives framed. The findings of the study revealed that majority of the IX standard students shows neutral attitude towards mathematics and the same trend has been seen in respect of the sub-samples, too.

Key words: Attitude towards mathematics, IX standard students.

ATTITUDE TOWARDS MATHEMATICS:

Attitude towards mathematics plays a crucial role in the learning processes of mathematics. It effects students' achievement in mathematics. The teaching method, the support of the structure of the school, the family and students' attitude towards school affect the attitudes towards mathematics. Usually, the way that mathematics is represented in the classroom and perceived by students, even when teachers believe they are presenting it in authentic and context dependent way stands to alienate many students from mathematics (Barton, 2000). Researchers concluded that positive attitude towards mathematics leads students towards success in mathematics. Attempt to improve attitude towards mathematics at lower level provides base for higher studies in mathematics. It also causes effect in achievement of mathematics at secondary school level

(Ma and Xu, 2004). The students complain that they do not have correct models before them and consequently they fail to develop a correct value system and attitude. Since the educational environment is polluted, the students develop a big gap between their real and ideal self. So, the present study has high need and importance. The present study has been done so as to study the attitude towards mathematics of the IX standard students.

OBJECTIVES OF THE STUDY:

The following were the objectives framed for the present investigation.

1. To study the favorableness of the IX standard students' attitude towards mathematics.
2. To study if there is any significant difference in attitude towards mathematics between the IX standard boys and girls.
3. To study if there is any significant difference in attitude towards mathematics between the IX standard students studying in the schools located in the urban area and in the rural area.
4. To study if there is any significant difference in attitude towards mathematics between the IX standard students residing in the urban area and in the rural area.
5. To study if there is any significant difference in attitude towards mathematics between the IX standard students studying in the English medium and Tamil medium.
6. To study if there is any significant difference in attitude towards mathematics between the IX standard students who were hostellers and day scholars.
7. To study if there is any significant difference in attitude towards mathematics between the IX standard students from nuclear family and joint family.

HYPOTHESES OF THE STUDY:

The following were the hypotheses for the present investigation formulated from the framed objectives.

1. The IX standard students shows favorable attitude towards mathematics.
2. There is no significant difference in attitude towards mathematics between the IX standard boys and girls.

3. There is no significant difference in attitude towards mathematics between the IX standard students studying in the schools located in the urban area and in the rural area.
4. There is no significant difference in attitude towards mathematics between the IX standard students residing in the urban area and in the rural area.
5. There is no significant difference in attitude towards mathematics between the IX standard students studying in the English medium and Tamil medium.
6. There is no significant difference in attitude towards mathematics between the IX standard students who were hostellers and day scholars.
7. There is no significant difference in attitude towards mathematics between the IX standard students from nuclear family and joint family.

METHOD:

Normative survey method has been employed in the present study.

TOOL USED:

Attitude towards mathematics scale constructed and validated by the authors was used in the present investigation. The scale consists of 22 statements. Each statement have the options namely 'Strongly Agree', 'Agree', 'Undecided', 'Disagree' and 'Strongly disagree'. The response of the subjects was scored by using the numerical values or arbitrary weights to the items. The statements were having the scoring as 5,4,3,2 and 1 for the responses 'Strongly Agree', 'Agree', 'Undecided', 'Disagree' and 'Strongly disagree' respectively for the positive statements and the scoring procedure is reversed for the negative statements. An individual score is the sum of all the score of the 22 items. The score ranges from 22 to 110. The maximum score that one can get in this is 110.

The level of the attitude towards mathematics scale has been given as follows:

LEVEL	RANGE OF THE SCORES
Unfavourable attitude	Upto 44
Neutral attitude	Above 44 upto 88
Favourable attitude	Above 88

The attitude towards mathematics scale has construct validity as the items selected were having the 't' value of more than 1.75 (Edwards,1957). Its intrinsic validity was found to be 0.79. The reliability of this

scale by split half technique (consistency) followed by the use of spearman –brown prophecy formula is found to be 0.63. Thus the attitude towards mathematics scale has validity and reliability.

SAMPLE:

Random sampling technique has been used in the selection of the sample of as many as 1000 IX standard students studying in higher secondary schools situated in the Adilabad district of Telangana.

STATISTICAL TECHNIQUES USED:

The attitude towards mathematics for the IX standard students has been computed for the entire sample and it's sub samples and they have been furnished in Table.1. The mean and standard deviation for the entire sample and its sub-samples were computed for attitude towards mathematics scores. The test of significance ("t" test) was used in order to find out the significance of the difference between the means of the attitude towards mathematics score. The collected data were computed with the SPSS 11.5 and the results were furnished accordingly in the Table 1.

TABLE 1

THE MEAN AND THE STANDARD DEVIATION OF THE ATTITUDE TOWARDS MATHEMATICS SCORES OF THE ENTIRE SAMPLE AND ITS SUB-SAMPLES

S.NO	SAMPLE	SUB-SAMPLE	N	MEAN	S.D	't' VALUE	SIGNIFICANT AT 0.05 LEVEL
1	Entire sample		1000	71.5700	9.7535	-	
2	Sex	Boys	544	72.0331	9.7830	1.64	Not significant
		Girls	456	71.0175	9.7001		
3	Locality	Rural	569	70.0967	9.6607	5.58	Significant
		Urban	431	73.5151	9.5430		
4	Residence	Rural	554	72.1011	9.8759	1.92	Not significant
		Urban	446	70.9103	9.5694		
5	Medium	Hindi	436	70.8257	9.3588	2.14	Significant
		English	564	72.1454	10.0184		
6	Mode of Stay	Hosteller	468	70.8077	9.9938	2.31	Significant
		Day	532	72.2406	9.4960		

		Scholar					
7	Family Type	Nuclear	674	71.7819	9.5030	0.96	Not significant
		Joint	326	71.1319	10.2533		

FINDINGS OF THE STUDY

The following are the important findings of the present investigation which were inferred from the Table1.

1. The IX standard student shows a neutral level of attitude towards mathematics.
2. There is no significant difference in attitude towards mathematics between the IX standard boys and girls.
3. There is a significant difference in attitude towards mathematics between the IX standard students studying in the schools located in the urban area and in the rural area.
4. There is no significant difference in attitude towards mathematics between the IX standard students residing in the urban area and in the rural area.
5. There is a significant difference in attitude towards mathematics between the IX standard students studying in the English medium and Tamil medium.
6. There is a significant difference in attitude towards mathematics between the IX standard students who were hostellers and day scholars.
7. There is no significant difference in attitude towards mathematics between the IX standard students from nuclear family and joint family.

CONCLUSION:

From the above analysis, it is concluded that the majority of the entire sample of IX standard students shows an neutral level of attitude towards mathematics. The sub-samples of the present study such as the locality of the school, medium of the study and mode of stay of the IX standard students shows a significant difference in attitude towards mathematics other sub-samples like sex, residence and family type of the IX standard students shows no significant difference in attitude towards mathematics.

REFERENCES:

Best, John. W., (1963), "Research in Education", Prentice hall of India (p.t) Ltd, New Delhi.

Barton, A. C. (2000), Crafting multicultural science education with pre-service teachers through service-learning. Journal of Curriculum Studies, Volume 32(6), pp. 797-820.

Edward J. Cancio, Richard P. West, and K. Richard Young. (2004). Improving Mathematics Homework Completion and Accuracy of Students with EBD through Self-Management and Parent Participation. Journal of Emotional and Behavioral Disorders, 2: 9 - 22.

Ma, X. and J. Xu (2004), Assessing the relationship between attitude towards mathematics and achievement in mathematics: A meta-analysis. Journal for Research in Mathematics Education, Volume 28(1), pp. 26-47.