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**STUDENTS ATTITUDE TOWARDS MATHEMATICS AND THEIR PROBLEM SOLVING SKILLS IN
ST. JOSEPH'S COLLEGE FOR WOMEN(A), VISAKHAPATNAM : A STUDY**

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Abstract

Developing problem solving competency is one of the most important goal of Mathematics teaching. This competency has to be developed starting from childhood. Students attitude towards mathematics has been a factor that is known to influence students achievement in Mathematics. The purpose of this study is to find out the students attitude towards mathematics and their Problem Solving Skills in Intermediate Students of St.Joseph's College for Women(Autonomous), Visakhapatnam. A total of 100 students of Intermediate were administered with a questionnaire to find out their attitudes towards Mathematics. The students answered questions regarding their personal confidence to mathematics and perceived usefulness of mathematics. The results shows that the students Positive Attitude towards Mathematics and Problem Solving Skills is Medium.

Key Words : Problem Solving Competency, Attitude Towards Mathematics, Intermediate Students of SJC

INTRODUCTION

The knowledge of mathematics is an essential tool in our society. It is a tool that can be used in our daily life to overcome the difficulties faced. Due to this mathematics has been considered as one of the most important core subject in a school curriculum. More mathematics lessons are likely to be taught in colleges throughout the world than any other subject. However, the standard tests and evaluations reveal that students do not perform to the expected level. The student under achievement in mathematics is not just a concern for particular countries, but has become a global concern over the years. Several studies and researches have been done in many countries to find the factors that influence the students performance in mathematics. Among these factors, students attitude towards mathematics is one important factor that has been constitutently studied. Often, the studies on relationship between students attitude and the students academic performance show a positive relationship. Hence students attitude towards mathematics is major factor that might influence the performance of the students. The aim of the research is to find out the junior college students attitude towards mathematics and their Problem Solving Skills in St. Joseph's College for Women(A), Visakhapatnam. The research will focus on finding the students attitude towards mathematics and their learning skills.

ATTITUDE TOWARDS MATHEMATICS

Based on a simple definition, attitude towards mathematics is a positive or negative feeling towards mathematics. Based on a multidimensional definition, attitude towards mathematics is an aggregated measure of liking or disliking of mathematics, a tendency to engage in or avoid



mathematical activities, a belief that one is good or bad at mathematics and a belief that mathematics is useful or useless. Students interest in mathematics, their beliefs in the utility of mathematical knowledge in their future career or in their everyday life determine in a fundamental way their problem solving behavior.

RESEARCH GOAL

The goal of the research is to study intermediate students attitude towards mathematics and learning skills.

RESEARCH TOOL

The research tool is a questionnaire. The questionnaire contains 14 items. 8 questions related to attitude towards mathematics and 6 questions are related to their learning skills. The topic of the research measured on a 4-point likert scale from

1. Agree a lot **2.** agree a little **3.** Disagree a lot to **4.** Disagree a little

RESEARCH SAMPLE

100 Junior college students have filled in the questionnaire during October 2016. In this research only female students belongs to M.P.C and M.E.C groups have participated.

RESULTS AND DISCUSSIONS

Students attitudes towards mathematics

Table1 contains the percentages of those selecting choices from

1. Agree a lot **2.** Agree a little **3.** Disagree a lot **4.** Disagree a little

Affirmations given in the questionnaire

TABLE1

AFFIRMATION	1%	2%	3%	4%
a)I usually do well in mathematics	25	69	3	3
b)I Would like to do more mathematics in college	41	43	9	7
c)I Like mathematics	19	26	34	21
d)I Enjoy learning mathematics	50	35	9	7
e)I am just average in mathematics	37	34	14	15
f) I Learn mathematics quickly rather than other subjects	34	18	19	26
g)Mathematics is boring	10	20	53	17
h)Mathematics is difficult for me compared to many of my classmates	44	45	5	5

PROBLEMSOLVING SKILLS

Table2 contains the percentages of those selecting choices from

1. Every or almost every lesson **2.** About half the lesson **3.** Some lessons **4.** Never

Affirmations given in the questionnaire:

TABLE 2

AFFIRMATION	1%	2%	3%	4%
a)I Practice adding,subtracting,multiplying,dividing without using a calculator	47	13	28	12
b)I Work on fractions and decimals	18	29	39	14



c)I Memorize how to work problems	24	36	28	12
d)I work with other students in small groups	24	22	36	18
e)I Explain my answers	30	27	31	12
f)I Work problems on my own	25	34	37	4

ATTITUDE TOWARDS MATHEMATICS

Table3 contains the average and standard deviation in case of the affirmation given in the questionnaire. We could observe that the **highest average** has the affirmation “**I Enjoy learning mathematics**”.

The **lowest average** has affirmation “**Mathematics is boring**”.

TABLE 3

AFFIRMATION	Average	Standard deviation
a) I usually do well in mathematics	1.84	8.98
b)I Would like to do more mathematics in college	1.82	7.52
c)I Like mathematics	2.57	7.17
d)I Enjoy learning mathematics	2.77	8.27
e)I am just average in mathematics	2.07	7.07
f) I Learn mathematics quickly rather than other subjects	2.34	9.81
g)Mathematics is boring	1.75	9.25
h)Mathematics is difficult for me compared to many of my classmates	1.69	7.79

PROBLEM SOLVING SKILLS

Table4 contains the average and standard deviation in case of the affirmation given in the questionnaire. We could observe that the **highest average** has the affirmation “**I Work on fractions and decimals**”.

AFFIRMATION	Average	Standard deviation
a)I Practice adding,subtracting,multiplying,dividing without using a calculator	2.05	7.45
b)I Work on fractions and decimals	2.49	7.15
c)I Memorize how to work problems	2.28	7.08
d)I work with other students in small groups	2.48	6.78
e)I Explain my answers	2.25	7.05
f)I Work problems on my own	2.20	7.40

Table 5 shows that the criteria used to categorize these variables as low, medium and high, based on the range of scores given by Jamil (2001) as cited by Mohd et al (2011)



Level of variables

MEAN SCORE	LEVEL
1.00-2.33	Low
2.34-3.66	Medium
3.67-5.00	High

Table 6 shows that the Positive Attitude towards Mathematics and Problem Solving Skills is medium

VARIABLES	MEAN SCORE	LEVEL
I Like mathematics	2.57	MEDIUM
I Enjoy learning mathematics	2.77	MEDIUM
I Learn mathematics quickly rather than other subjects	2.34	MEDIUM
I Work on fractions and decimals	2.49	MEDIUM
I work with other students in small groups	2.48	MEDIUM

CONCLUSION

As a conclusion to this research it can be said that, since the students positive attitude towards mathematics is at medium level, it shows that there are still possibilities for improvement. It is recommended that the maximum effort should be given to improve the Students Attitude towards Mathematics and conduct further studies to find factors influencing Students Attitude towards Mathematics. Final results shows that the students Positive Attitude towards Mathematics and Problem Solving Skills is Medium

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