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## STRESS LEVELS AMONG SECONDARY SCHOOL STUDENTS TOWARDS MATHEMATICS SUBJECT

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### **Abstract:**

The purpose of the present study is to know the stress levels of students towards mathematics. For this, descriptive survey method was adopted. Stratified random sampling technique was used to draw the sample. 130 students were selected as a sample of the study. Researcher made questionnaire was used to collect the data. Data analysis was done with the help of SPSS and findings were discussed.

### **Introduction:**

Now a day's mathematics is very important in student's life. It plays a unique role in solving everyday problems. It has occupied a significant position in the school curriculum. But most of the students at secondary level are facing many problems for various reasons. They are unable to understand basic concepts: They are unable to apply mathematical knowledge, and logical operations and techniques of mathematics in their life. It is not only problem from the pupils side but from the teachers and parents also. At the higher secondary and university stages, most of physical and social science require the applications of mathematics. The strength of Nation lies in its commitment and capacity to prepare people for needs and aspirations, requirements of a progressive technological society so students should have good mathematical skills.

### **Importance of the study:**

The researcher felt that it is very important and need that to find out the solutions for simplifying the mathematics subject and it may cause for reduce and remove the stress among students and create pleasurable circumstances for studying the mathematics subject. Hence the researcher selected the topic 'Stress levels among secondary school students towards mathematics subject'.

### **Variables of the study:**

Dependent variables: Stress levels  
Independent variables : Gender: i.e. Boys and Girls  
Type of Management i.e. Government and Private

### **Review of related literature:**

Vijayalakshmi and Lavanya (2006) conducted a study on "Relationship between Stress and Mathematics Achievement among Intermediate Students". A sample of 180 intermediate students was selected by stratified random sampling procedure and survey method was adapted to carry on the investigation. The findings showed that senior intermediate students have more stress than juniors..



**Statement of the problem:**

“Stress Levels among Secondary School Students towards Mathematics subject.”

**Objectives of the study:**

1. To Know Causes of stress among secondary school students towards mathematics subject.
2. To know the difference between boys and girls with respect to their stress towards mathematics subject.
3. To know the difference between government and private secondary school students with respect to their stress towards mathematics subject.
4. To compare the Private School Boys and Government School Girls with respect to their stress towards mathematics subject
5. To compare the Private School Boys and Government School Boys with respect to their stress towards mathematics subject.
6. To compare the Private School Girls and Government School Girls with respect to their stress towards mathematics subject.

**Hypothesis of the study:**

1. There will be average level of stress among secondary school students towards mathematics subject.
2. There will be no significant differences between boys and girls of secondary school students with respect to their stress towards mathematics subject.
3. There will be no significant differences between government and private secondary school students with respect to their stress towards mathematics subject.
4. There will be no significant differences between government Girls and private Boysschool students with respect to their stress towards mathematics subject.
5. There will be no significant differences between government Boys and private Boysschool students with respect to their stress towards mathematics subject.
6. There will be no significant differences between government Girls and private Girlsschool students with respect to their stress towards mathematics subject.

**Sample of the study:**

The researcher used the stratified random sampling technique for this study. The sample was selected on the basis of their gender (Male and Female)only. The size of sample was 130 students.

**Tool for the study:**

The Stress Scale is a self-reporting three point scale. The researcher developed own tool i.e. “Stress among Secondary School Students towards mathematics subject”. It was used to collect the data for this study. The tool was administrated on a sample of 130 Secondary School Students at Z.P.H.S. Maravelly and Shivani public school, Chilver MEDAK (District)

In this study Pearson’s product moment correlation and test of significance of difference between Means were used to analyze the data and test the hypothesis.



**Presentation of data and analysis:**

The present paper includes the distribution of sample and analysis of sample with respect to independent variable gender, and dependent variable Causes of Stress.

**Distribution of sample:**

The collected data were analyzed with respect to independent variable Gender, and the results are tabulated in the table.

**Objective -1:** To know the stress among secondary school students towards mathematics subject.

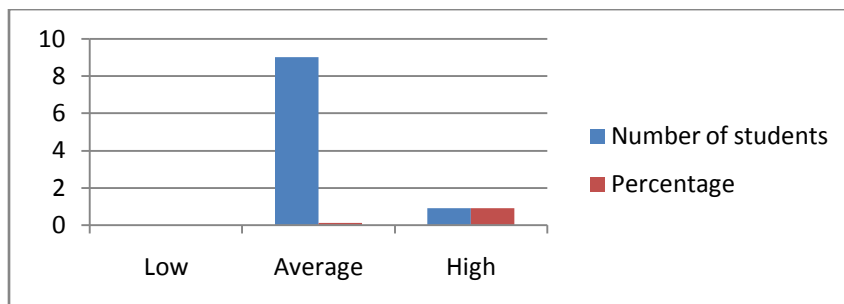
**Hypothesis-1:**

There will not be any significant difference in the level of stress among secondary school students.

**Table1: Distribution of the sample with respect to level of stress.**

Variable	Level	Number of students	Percentage
Stress	Low	0	0%
	Average	9	9%
	High	91	91%
	Total	100	100%

**Figure1: Showing the level of stress among secondary school students**

**Interpretation:**

The above table(1) shows that it is observed that can be observed that 9% of secondary school students showed minimum average level of stress and 91% of the secondary school students were showed high level stress towards mathematics.

Based on the percentage it can be concluded that there is a high level of stress among secondary school students towards mathematics. Thus the hypothesis is rejected.

### Objective-2

To compare the stress levels among boys and girls secondary school students with respect to stress towards mathematics subject.

### HYPOTHESIS-2

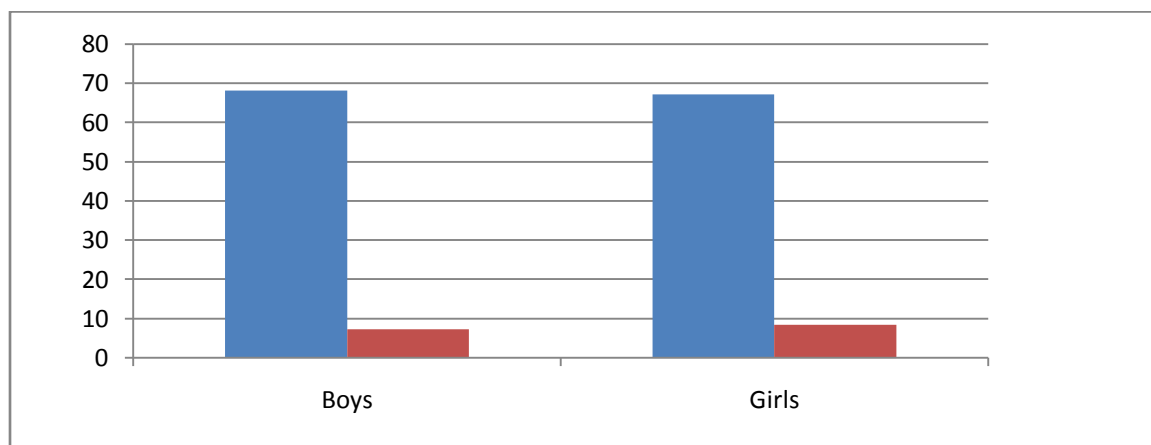
There exists no significance difference between Boys and girls Secondary school students with respect to their stress towards mathematics subject..

**Table 2: Showing significant difference between mean of Boys and Girls Stress among secondary school students**

Gender	N	Mean	Standard deviation	“t” value
Boys	64	68.17	7.3813	0.732
Girls	66	67.1	8.484	

Significant at .05 level

**Chart-2: Showing the Mean of the Boys and Girls of Secondary School Students with respect to their stress towards Mathematics subject.**



### Interpretation:

The above the table depict that it is interpreted that the mean value of Boys 68.17 and Girls 67.15 and standard deviation of boys 7.381 and girls 8.484 and “t” test value is 0.732. There is a no significant difference between boys and girls secondary school students with respect to their stress towards mathematics subject. The hypothesis is accepted.

The above table depicts that the calculated t value 0.732 and the table t value is 1. At .05 level it is significant.

The calculated table t value the null hypothesis is accepted there no significant difference between Government and private secondary school students with respect to their stress level towards mathematics.

### Objective-3:

To compare government and private secondary school students with respect to their stress towards mathematics subject.

### Hypothesis-3:

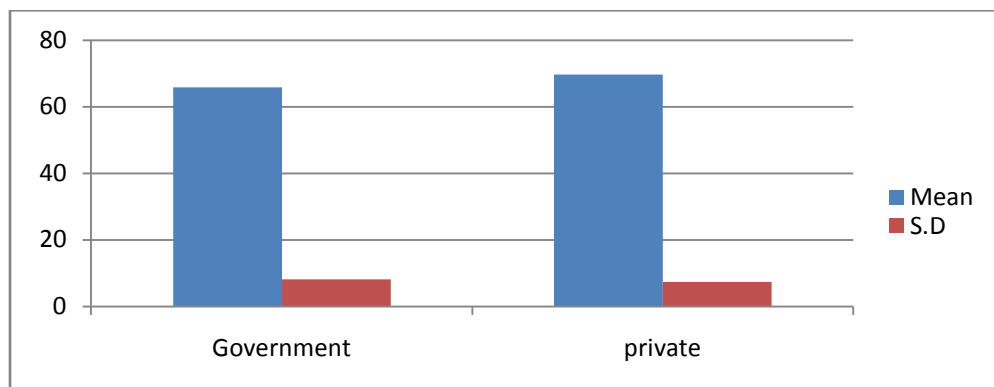
There exists no significance difference between Government and Private Secondary school students with respect to their stress towards mathematics subject..

**Table 3: The table showing the types of Management**

Type of Management	N	MEAN	SD	“t” VALUE
Government	65	65.692	8.009	2.92
Private	65	69.61	7.29	

Significant at 0.03 level

**Chart 3: Showing the Mean of type of Management**



### Interpretation:

The above table reveals that table it is interpreted that the mean value of Government 65.692 and

Mean value of Private 69.61 and standard deviation of Government 8.009 And standard deviation of Private 7.29 the “t” test value is 2.92.

The calculated t value 2.92 is more than table t value 2.58 there is significant private and government school secondary school students.

The null hypothesis is rejected however the table students that there exists that maximum amount of stress among government and private secondary students towards mathematics more stress is observed among government and private.

**Objective-4:**

To compare the Private Boys and Government Girls secondary school students with respect to their stress towards mathematics subject.

**Hypothesis-4:**

There exists no significance difference between Government Girls and Private Boys Secondary school students with respect to their stress towards mathematics subject.

**Table 4: The Table Showing Types of Private School Boys Government School Girls**

Type of Management	N	MEAN	SD	"t" VALUE
Private School Boys	31	69.58	8.217	2.298
Government School Girls	32	64.5	9.354	

Significant at .05level.

**Interpretation:**

From the above table it is interpreted that the mean value of Government 64.5 and Mean value of Private 69.58 and standard deviation of Government 9.354

And standard deviation of Private 8.217 the "t" test value is 2.298.

There no significant difference between Government School Girls and Private School Boys with respect to their stress towards mathematics subject. So the hypothesis is accepted.

The null hypothesis is rejected however the table students that there exist that maximum amount of stress among government and private secondary students towards mathematics more stress is observed among private school boys than government girls.

**Objective-5:**

To compare the Private Boys and Government Boys secondary school students with respect to their stress towards mathematics subject.

**Hypothesis-5:**

There exists no significance difference between Government Boys and Private Boys Secondary school students with respect to their stress towards mathematics subject..

**Table 5: The Table Showing Types Of Private School Boys Government School Boys**



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Type of Management	N	MEAN	SD	“t” VALUE
Private School Boys	31	69.58	8.217	1.50
Government School Boys	33	66.848	6.224	

Significant at .05level

**Interpretation:**

From the above table it is interpreted that the mean value of Government Boys 66.848 and Mean value of Private School Boys 69.58 and standard deviation of Government 9.354 And standard deviation of Private 8.217 the “t” test value is 1.50.

There no significant difference between Government School Girls and Private School Boysstudents with respect to their stress towards mathematics subject. So the hypothesis is accepted.

The above the table shows that above the calculated t value 1.50 and the table t value is 1Significant at .05level

The calculated table t value the null hypothesis is accepted there no significant difference between government and private boys school students with respect to their stress level towards mathematics.

**Objective-6:**

To compare the Private Girls and Government Girls secondary school students with respect to their stress towards mathematics subject.

**Hypothesis-6:**

There exists no significance difference between Government Girls and Private Girls Secondary school students with respect to their stress towards mathematics subject.

**Table 6: The Table Showing Types Of Private School Girls Government School Girls**

Type of Management	N	MEAN	SD	“t” VALUE
Government School Girls	32	64.5	9.354	2.323
Private School Girls	34	69.64	8.58	

Significant value .05level

**Interpretation:**

From the above table it is interpreted that the mean value of Government girls 64.5 andMean value of Private School Girls 69.64 and standard deviation of Government School Girls 9.354And standard deviation of Private School Girls 8.58 the “t” test value is 2.323.



There no significant difference between Government School Girls and Private School Boys students with respect to their stress towards mathematics subject. So the hypothesis is accepted. The null hypothesis is rejected however the table students that there exist that maximum amount of stress among government and private secondary students towards mathematics more stress is observed among private secondary school students than government secondary school students.

### **Discussion on findings:**

Majority of Secondary School Students showed Stress towards mathematics because may be school environment, not appropriate, the teacher's method of teaching may be unfavorable. There is a need of find out the new methods and new teaching aids which can simplify the mathematics among the students.

Irrespective of gender the respondents showed high stress towards mathematics subject because it may be similar exposor of school environment, and other factors such as not having family support, examination phobia, and lack of interest etc., can be causes for stress among Secondary School Students.

### **Educational implications:**

These findings have practical implications for parents, teachers, educational planners, and of course for students. Teachers can understand that stress has a positive impact on a students' academic achievement and stress does not always correlate academic achievement negatively. Parents should be aware of the fact that few related areas of stress are essential for the better performance of their children. Stress related to career and job matter may not be as harmful in this context. Parents should identify level of stress of their children and should treat them accordingly. Parents should motivate them to read newspapers, magazine etc. in order to utilize their energy. Parents should inspire their children to develop self-discipline and balance state of mind.

Teacher should arouse curiosity and interest among students. It depends on the teacher's efficiency that how a stressed student can achieve more in the examination.

This study can assist the teachers, curriculum planners and mathematics educators and evaluators in directing the best way to impart knowledge of mathematics in such a way that will improve the present standard at any level of our educational system. It can assist in planning school effectiveness. It can assist pre-professional mathematics teachers to explore the advantages of e-learning to learn the new methods of teaching mathematics, as well as designing various strategies that promote effectiveness. It hoped that the readers and stakeholders in education and those who believe school environmental factors that can promote teaching effectiveness will find this study beneficial as such assist to maintain factors that promote effectiveness culture in dealing with students.

### **Conclusions:**

1. It was found that there is a high level of stress among secondary school students.
2. It was found that irrespective of gender there is a high level of stress among secondary school students.
3. It was found that the causes of stress are as under follows:





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- a) Not having Proper method of teaching.
  - b) Improper applications of mathematics symbols.
  - c) Lack of Interest towards mathematics.
  - d) Influence of Frequently least scores in mathematics test.
  - e) Examination Phobia.
  - f) The parental force to scores high marks in mathematics.
  - g) Illiterate family environment.
  - h) Not conducting mathematics classes in morning session.
  - i) Sometimes Competition among friends.
4. It was found that under following factors stress can be reduced among secondary school Students:
- a) Proper school environment.
  - b) Participation in mathematics club.
  - c) Conducting special classes.
  - d) Proper way of method of teaching.
  - e) Proper usage of teaching aids.
  - f) Providing proper awareness on mathematics.
  - g) Proper application of mathematics symbols.
  - h) Peer groups support.
  - i) More number of theories.
  - j) Continuous practice of solutions.

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