EXAMINATION ANXIETY AND ACHIEVEMENT IN MATHEMATICS OF IX STANDARD STUDENTS

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ABSTRACT
The present study was explored to find out the relationship between examination anxiety and achievement in mathematics of IX standard students. Survey method was conducted on a random sample of 250 students of Puducherry. Data was analyzed by t-test and r-value. Major finding showed that there is significant relationship between test anxiety and achievement in mathematics of IX standard students.

KEYWORDS: Examination Anxiety, Achievement in Mathematics, IX Standard Students.

INTRODUCTION
The term anxiety originates from the Latin word ‘anxietus’ which denotes “an experience of varying kinds of uncertainty, agitation and dread”. Anxiety is one of the dynamic personality variables which act as barrier to learning process. Anxiety is one of the most basic human emotions and occurs in every person at some time, most often when someone is apprehensive about uncertain outcomes of an event or set of circumstances. Anxiety can serve an adaptive function, however, and is also a marker for typical development. In the school setting, anxiety is experienced often by students when being evaluated, such as when taking a test or giving a public performance. Most adolescents cope with these situations well, but there is a subset of up to 30% of students who experience severe anxiety, a condition most often termed “test anxiety.” When test anxiety is severe, it can have significant negative effects on a student’s ability to perform at an optimal level. Over time, test anxiety tends to generalize too many evaluative situations, contributing to more pervasive underachievement. Additional consequences of chronic test anxiety can include lowered self-esteem, reduced effort, and loss of motivation for school tasks. Other forms of anxiety that can be seen in the school include generalized anxiety, fears, phobias, social anxiety, and extreme social withdrawal.

NEED AND IMPORTANCE OF THE STUDY
Modern society depends on mathematical thoughts. This has been true ever since man’s advancement beyond the most primitive stage and discovered his need for counting and elementary concepts of numbers. In a highly advanced civilization of today, examination anxiety is a crucial psychological state of mind of an individual. The learning process is influenced by the students’ anxiety. Highly anxious students develop fear and worry. Examination anxiety has been shown to have a consistently negative relationship with test performance and test anxious students’ are found to perform below their non-anxious peers. Realizing this unpleasant situation, the investigator would like to study the examination anxiety and the achievement of high school students in mathematics.

OBJECTIVES OF THE STUDY
•To study the significant difference in examination anxiety and achievement in mathematics of IX standard students based on their gender, locality and nature of school.
To find out the significant relationship between examination anxiety and achievement in mathematics of IX standard students.

HYPOTHESES:
1. There is no significant difference in examination anxiety of IX standard students based on gender, locality and nature of school.
2. There is no significant difference in achievement in mathematics of high school students with respect to gender, locality and nature of school.
3. There is no significant relationship between examination anxiety and achievement in mathematics of IX standard students.

METHOD & SAMPLE
Survey method was used for the present study. A sample of 250 IX standard students was selected in Puducherry by using random sampling technique.

TOOLS
- Examination Anxiety Scale and Achievement in Mathematics Test were developed by the investigator.

DATA ANALYSIS

Table 1: Examination Anxiety of IX Standard Students with regard to Demographical Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>104</td>
<td>17.46</td>
<td>3.44</td>
<td>4.40</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>146</td>
<td>15.40</td>
<td>3.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locality</td>
<td>Rural</td>
<td>181</td>
<td>16.88</td>
<td>3.79</td>
<td>4.42</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>69</td>
<td>14.61</td>
<td>3.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nature of School</td>
<td>Unisex</td>
<td>12</td>
<td>18.25</td>
<td>3.31</td>
<td>2.12</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Co-ed.</td>
<td>238</td>
<td>16.16</td>
<td>3.87</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows that the calculated t-values 4.40, 4.42 and 2.12 are significant at 0.05 level. Thus there is significant difference in examination anxiety of IX standard students based on gender, locality of residence and nature of school.

Table 2: Achievement in Mathematics of IX Standard Students with regard to Demographical Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>104</td>
<td>76.57</td>
<td>15.45</td>
<td>1.31</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>146</td>
<td>79.16</td>
<td>15.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locality</td>
<td>Rural</td>
<td>181</td>
<td>75.39</td>
<td>15.80</td>
<td>5.70</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>69</td>
<td>85.14</td>
<td>11.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of School</td>
<td>Unisex</td>
<td>12</td>
<td>77.92</td>
<td>19.34</td>
<td>0.03</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Co-ed.</td>
<td>238</td>
<td>78.09</td>
<td>15.26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 2, the calculated t-values 1.31 and 0.03 are not significant at 0.05 level. Thus there is no significant difference in achievement in mathematics of IX standard students in terms of gender and nature of school.
Table-2 also depicts that the calculated t-value 5.70 is significant at 0.05 level. Thus there is significant difference in achievement in mathematics of IX standard students with regard to locality.

**Table 3: Relationship between Examination Anxiety and Achievement in Mathematics of IX Standard Students**

<table>
<thead>
<tr>
<th>Examination Anxiety vs. Achievement in Mathematics</th>
<th>N</th>
<th>‘r’ value</th>
<th>Table Value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>250</td>
<td>0.196</td>
<td>0.126</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table-3 shows that the calculated ‘r’ value 0.196 which is greater than the table value at 5% level of significance. Hence the hypothesis-3 is rejected.

**FINDINGS**

- There is significant difference in examination anxiety of IX standard students based on gender, locality and nature of school.
- There is no significant difference in achievement in mathematics of high school students with respect to gender and nature of school.
- There is significant difference in achievement in mathematics of high school students with respect to locality.
- There is no significant relationship between examination anxiety and achievement in mathematics of IX standard students.

**EDUCATIONAL IMPLICATIONS**

- Students should be provided with better learning environment in their home with all learning resources. School atmosphere should be supportive for the emotional development and mental health of children. Children should be free to express their feelings.
- Teachers should be approachable and they ought to give emotional support to students in hours of crises. Teachers may provide necessary short cuts for remembering mathematical formulae and theorems.
- Child centered and life centered curricula should be implemented in schools for promoting children’s interest in learning. Cutthroat competitions among students for highest achievement should be discouraged and only healthy competition mixed with cooperation should be encouraged.
- Guidance and Counseling services should be a part of the school system. Schools can make use of the help of professional counselors and psychologists.

**BIBLIOGRAPHY**


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