Learning style, gender and locality of secondary school students: A comparative study on the basis of educational anxiety

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Abstract
The present study was attempted to explore the educational anxiety with its dimensions i.e. academic anxiety and test anxiety among ninth class students of Rohtak district in relation to learning style, gender and locality. Descriptive survey method employed for the present investigation. Multi-stage stratified random sampling technique used to select the sample of 350 secondary school students studying in ninth class of Government schools of Rohtak city. Educational Anxiety Inventory developed by Sood & Anand (2012) and Learning Style Inventory developed by Misra (2005) were used to collect the data. Means, S.D’s & t-test compute on SPSS were used for the purpose of the data analysis. The findings revealed that no significant difference in educational anxiety with its dimensions among male and female secondary school students. While, a significant difference found in educational anxiety among urban and rural secondary school students. Further, no significant difference found in educational anxiety among secondary school students having low level and high level learning style.

Keywords: Educational anxiety, learning style, gender, locality

Introduction
Anxiety is likely to be one of the common serious problems of 21st century from which the modern man can hardly escape. Anxiety is one of the psychological disorders in school-aged children and adolescents worldwide. India is prone to be anxious country. Then come France, Italy, Japan, Britain and America. In the present age of competition, Students are facing multiple pressures like pressure of preparing and performing well in the examination, which creates many psychological problems and causes stress and anxiety. Now-a-days students do not study for pleasure and for developing their mental and moral standards but merely to pass the examination. There have been thousand of causes when students committed suicide, as they were not able to handle the pressure caused by parents, teachers or peers. Loneliness, low self-esteem, perceptions of social rejection and difficulty forming friendships importantly, school avoidance, decreased problem solving abilities and lower academic achievement have also been noted as consequences of anxiety. This type of anxiety is identified as Educational anxiety.

Educational anxiety is a kind of anxiety that relates to the imminent danger from subjects like and exam pattern to some extent. It is a mental sensitivity of uneasiness or distress in response to school or college circumstances perceived negatively. Educational anxiety is an important problem that affects millions of students in colleges and schools over the world each year. A low level of educational anxiety can cause positive motivation for students but high level of it can cause a disturbance in concentration, attention, storage of knowledge, recall and educational reduction. Educational anxiety if not properly addressed, it can have many serious, severe and long lasting consequences such as causing a student to start hating a subject or a teacher, procrastinate, tell lies to parents, perform poorly on school work, and absent classes. Educational anxiety is the combination of academic anxiety and test anxiety.

To survive in educational competition, students always feel some pressure and tension in their academic field as the academic achievement is important for taking decision in future life. This type of pressure and tension in academic field create uncontrollable nervousness, stress and fear among students, called academic anxiety. Mokashi, Yadav and Khadi (2012) [5] revealed that residential children were high in their anxiety and also in their academic
achieved. Boys were significantly having higher anxiety while girls were higher in academic achievement. Siddiqui et al. (2014) [8] found that academic anxiety is more severe among girls as compared to boys. It is also found that socio-economic status is an important variable, which certainly affects the academic anxiety in a negative manner. Test anxiety is the uneasiness, apprehension, or nervousness felt by students who have a fear of failing an exam. Reddy and Harinath (2013) [8] revealed a significant difference in the level of examination anxiety among the boys and girls of 10th class students and a significant difference in the level of test anxiety among the students of 10th class studying under government and private managed schools. Bihari (2014) [2] revealed that no significant difference were found between the overall mean scores of secondary school boys and girls and rural and urban students on their academic anxiety while significant difference was found between the mean scores of government and private secondary school students on their academic anxiety. Educational anxiety affected by numbers of factors like the student’s interest, learning style, student’s aptitude, student’s attitude and many demographical variables. Learning style is an emerging factor that has an impact on educational anxiety of the students.

Learning style is the way or method by which students acquire learning. It is a consistent way of responding to and using stimuli in context of learning. There are inherent variations of learning styles that every individual reflects. Learning style is a personality characteristic that is innate and affected by environmental factor and evolves over a period of time. It is also determined by many variables such as mental abilities, child rearing practices, school environment, peer interaction, self-awareness, involvement in learning on the part of students etc. It gradually develops from birth and stabilizes at certain age i.e. adolescent age. Students reveal their learning style preference by everything they say or do. Learning style is a relatively consistent pattern of perception interaction with and response to stimuli in a particular learning environment. Every student should have an opportunity to reach his or her individual potential. We also know that an individual learner's culture, family background, and socioeconomic level affect his or her learning. If students use the appropriate learning style according to their learning, this will help in reducing educational anxiety among students which means learning style affect the educational anxiety. Zainol Abidin (2011) [13] revealed that there is significant relationship between academic achievement and learning styles. It was also found that high, moderate and low achievers have a similar preference pattern of learning in all learning styles. Gokalp (2013) [7] has found statistically significant differences between the results of the first and final applications of the subtests on learning styles and academic success. Ayalp & Özenmir (2016) [1] determined that there is a significant relationship between learning styles of architecture students and their test anxiety level. As, no work had been done in the field of educational anxiety individually as well as with any other variables till date. However, no many researches has been conducted in India that examines the effect of learning style, gender and locality on educational anxiety of secondary school students. This is where I hope that my study will fill a gap. Therefore, the present study undertook to compare the educational anxiety and its dimensions i.e. academic anxiety and test anxiety of secondary school students in relation to learning style, gender & locality.

Variables involved
Dependent Variables: Educational Anxiety
Independent Variables: Learning Styles, Gender and Locality

Objectives of the Study
1. To compare the educational anxiety with its dimensions academic anxiety and test anxiety among male and female of secondary school students.
2. To compare the educational anxiety with its dimensions academic anxiety and test anxiety among rural and urban secondary school students.
3. To compare the educational anxiety with its dimensions academic anxiety and test anxiety among secondary school students having high and low learning style.

Hypotheses of the Study
Ho1: There is no significant difference between the educational anxiety with its dimensions academic anxiety and test anxiety among male and female of secondary school students.
Ho2: There is no significant difference between the educational anxiety with its dimensions academic anxiety and test anxiety among rural and urban secondary school students.
Ho3: There is no significant difference between the educational anxiety with its dimensions academic anxiety and test anxiety among secondary school students having high and low learning style.

Methodology
The present study employed descriptive survey method and aimed at examining the effect of learning style, gender and locality on the educational anxiety of secondary school students. Each independent variable i.e. learning style, gender and locality was varied at two levels as shown in Schematic design:

Sample
A sample of 350 Govt. secondary school students affiliated to Board School Education, Haryana was drawn using...
multi-stage stratified random sampling technique. There were stratified on the basis of gender: Male and Female; locality: Urban and Rural; and learning style: High level learning style and Low level learning. The secondary school students who score 146 and below were considered as low level of learning style and those who scored 147 and above were considered as high level of learning style.

**Tools Used**

1. Educational Anxiety Inventory (EAI-SAVV) by Sood, V. & Anand, A. (2012) [10] was used to collect the data of educational anxiety of secondary school students. The scale consists of 42 items rated on a five point psychological continuum and the coefficient of reliability was found to be 0.738.

2. Learning Style Inventory (LSI-MK) developed by Misra (2005) [6] was used to collect the learning style of secondary school students. It is likert type five-point scale with 42 items and the coefficient of reliability was found to be 0.682.

**Statistical Techniques**

Means, S.D.’s and t-test were used to compare the dimensions of educational anxiety i.e. academic anxiety and test anxiety of secondary school students with respect to their level of learning style, gender and locality. The data was analyzed by using SPSS.

**Data Analysis and Interpretation**

1. **Comparison of academic anxiety with respect to Gender**

The first objective was to compare the educational anxiety with its dimensions academic anxiety and test anxiety among male and female secondary school students. To achieve this objective of the study, the data were subjected to t-test. The ‘t’-values and mean scores for educational anxiety with its dimensions academic anxiety and test anxiety of secondary school students with respect to gender have been presented in table-1 and fig. 1 respectively.

![Fig. 1: Mean scores of Educational Anxiety of secondary school students with respect to gender](image)

### Table-1: ‘t’- values for the mean scores of Educational Anxiety and its Dimensions of male and female Secondary School Students

<table>
<thead>
<tr>
<th>Variables</th>
<th>Secondary School Students(N=350)</th>
<th>Male (N=202)</th>
<th>Female (N=148)</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Academic Anxiety</td>
<td>60.63</td>
<td>11.48</td>
<td>61.30</td>
<td>14.91</td>
</tr>
<tr>
<td>Test Anxiety</td>
<td>65.74</td>
<td>15.66</td>
<td>66.86</td>
<td>14.85</td>
</tr>
<tr>
<td>Educational Anxiety</td>
<td>126.43</td>
<td>24.78</td>
<td>128.78</td>
<td>26.77</td>
</tr>
</tbody>
</table>

NS= Not Significant at 0.01 level

Table-1 depicts ‘t’-values for the mean scores of educational anxiety with its dimensions among male and female secondary school students are not significant at 0.01 level. Thus, hypothesis Ho1 is retained. There is no significant difference between the educational anxiety with its dimensions academic anxiety and test anxiety among male and female of secondary school students.

Thus the present findings is in consonance with the findings of Mahajan (2015) [4] who concluded that no significant difference was found between academic anxiety of male and female secondary school students.

2. **Comparison of educational anxiety with respect to Locality**

In order to compare the educational anxiety with its dimensions academic anxiety and test anxiety of urban and rural secondary school students were subjected to t-test. The table-2 presents means, S.D.’s and t-values of educational anxiety with its dimensions of urban and rural secondary school students. The mean scores have also been presented in the form of bar diagram in fig.-

![Fig. 2: Mean scores of Educational Anxiety of urban and rural secondary school students](image)

### Table-2: ‘t’- values for the mean scores of Educational Anxiety and its Dimensions of urban and rural Secondary School Students

<table>
<thead>
<tr>
<th>Variables</th>
<th>Secondary School Students(N=350)</th>
<th>Urban (N=185)</th>
<th>Rural (N=165)</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Academic Anxiety</td>
<td>59.96</td>
<td>11.81</td>
<td>61.99</td>
<td>14.23</td>
</tr>
<tr>
<td>Test Anxiety</td>
<td>63.98</td>
<td>15.56</td>
<td>68.72</td>
<td>15.02</td>
</tr>
<tr>
<td>Educational Anxiety</td>
<td>123.99</td>
<td>24.23</td>
<td>131.27</td>
<td>26.67</td>
</tr>
</tbody>
</table>

**=Significant at 0.01 level NS= Not Significant at .01 level

Table-2 depicts ‘t’-values for the mean scores of educational anxiety and its dimensions; test anxiety among urban and rural secondary school students are significant at 0.01 level but academic anxiety among rural and urban is not significant at 0.01 level Thus, hypothesis Ho2 is rejected. However, in the context of mean scores, it can be seen that rural secondary school students (131.27) have more educational anxiety than their counterparts (123.99) have. Thus the present findings is in consonance with the findings of Bihari (2014) [2] who concluded that no significant difference were found between mean scores of secondary school students of rural and urban students on their academic anxiety.
3. Comparison of Educational Anxiety with respect to Learning Style

In order to compare the educational anxiety with its dimensions academic anxiety and test anxiety of high level learning style and low level learning style secondary school students were subjected to t-test. The table-3 presents means, S.D.’s and t-values of educational anxiety with its dimensions academic anxiety and test anxiety of high level learning style and low level learning style of secondary school students. The mean scores have also been presented in the form of bar diagram in fig.-3

Table-3: ‘t’- values for the mean scores of Educational Anxiety and its Dimensions of High level and low level learning style Secondary School Students

<table>
<thead>
<tr>
<th>Variables</th>
<th>Secondary School Students(N=350)</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High level learning style (N=157)</td>
<td>Low level learning style (N=193)</td>
<td>t-values</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
<td></td>
</tr>
<tr>
<td>Academic Anxiety</td>
<td>61.59</td>
<td>15.42</td>
<td>60.37</td>
<td>10.71</td>
<td>0.870 (NS)</td>
</tr>
<tr>
<td>Test Anxiety</td>
<td>68.13</td>
<td>17.18</td>
<td>64.65</td>
<td>13.47</td>
<td>2.13*</td>
</tr>
<tr>
<td>Educational Anxiety</td>
<td>130.04</td>
<td>29.73</td>
<td>125.30</td>
<td>21.59</td>
<td>1.73 (NS)</td>
</tr>
</tbody>
</table>

* = Significant at 0.05 level  NS = Not Significant at .01 level

Fig 3: Mean scores of Educational Anxiety of secondary school students with respect to Level of learning style

Table-3 depicts that ‘t’-values for the mean scores of educational anxiety with its dimensions among high level learning style and low level learning style secondary school students are not significant at 0.01 level. Thus, hypothesis Ho3 is retained. There is no significant difference between the educational anxiety with its dimensions academic anxiety and test anxiety among secondary school students having high and low learning style Thus the present findings is resulted as high level & low level learning style have same academic anxiety. While they differ in their test anxiety, high level learning style having high educational anxiety and taking more stress than low level learning style.

Findings of the Study

- No significant difference was found in educational anxiety and its dimensions as academic anxiety and test anxiety among male and female secondary school students.
- A significant difference in educational anxiety and its dimension test anxiety among urban and rural secondary school students was observed. While no significant difference in academic anxiety of urban and rural secondary school students.
- Educational anxiety and academic anxiety among secondary school students having low level learning style and high level of learning style were not found to be significant and test anxiety among secondary school students having high and low level of learning style was found to be significant.

Conclusion

From this present study, we conclude that no significant difference in educational anxiety with its dimensions among male and female secondary school students i.e. both have similar educational anxiety. While, a significant difference found in educational anxiety among urban and rural secondary school students means rural students have more educational anxiety than urban have. Further, no significant difference found in educational anxiety among secondary school students having low level learning style and high level learning style i.e. learning style not affect the educational anxiety.

Educational Implications

Adolescents are the main segment of the population of country. So it is very important for us to reduce their academic anxiety in a proper manner and to take knowledge of one’s learning style. This study has implications for parents, teachers, educational administrators, counselor, other laypersons and all those involved in the lives of adolescents are as follows:

1. Teacher must create a climate in classroom free from anxiety by providing extra attention to those who are from rural area and low level of learning style because they suffer more from academic anxiety.
2. Girls are more prone to anxiety as compared to boys it may be because of family obligations, gender biasness etc. They must be given appropriate attention inside the school to get relief from academic anxiety disorder.
3. Parents and teachers must play an active role in minimizing the academic anxiety of students by expecting academic performance from students that is not beyond their abilities, interest, potentialities & learning style etc, because over expectations from parents and teachers result in more academic anxiety.
4. Academic anxiety is a severe problem of secondary school students. Concerted efforts are needed to create anxiety free climate in school by providing counseling to students to choose appropriate stream according to the abilities, interests and potentials of students.
5. The results of study may provide the ways of solving the problems related to academic anxiety of secondary school students.

References