Effect of Frustration and Gender on Academic Achievement of Senior Secondary School Students

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ABSTRACT: The present study was undertaken to study the effect of frustration and gender on academic achievement of senior secondary school students. Academic achievement was treated as dependent variable and frustration and gender were treated as independent variables. Sample of 650 senior secondary school students were selected from Haryana state with the multi-stage random sampling technique. Descriptive survey method was employed to conduct the present investigation. The results found that significant main effects of frustration and gender on academic achievement of senior secondary school students. The insignificant interaction effect was found among frustration and gender on academic achievement of senior secondary school students.

Key Words: Academic Achievement, Frustration and Gender.

Frustration

Frustration as "a deep chronic sense or state of insecurity and dissatisfaction arising from unresolved problems."

It refers to the circumstances that blocks the way to a goal. In other words, "sense of dissatisfaction, unhappiness, displeasure that is the result of being blocked". Life and its path is not that easy as in our every day goal-seeking efforts; counteract many obstacles among ourselves and our ambitions. We encounters more or less frustrations in our everyday's life like a person misses his/her bus or train, a late appearance for an meeting, delay in making important report/ work. Now a days each and every one having much greater frustrations in their life whether they are of any age group or of any sex. A frustration takes any form it may be a boy who aspires to be a football player loses a leg, 'or a girl who wants to tie the knot with her infancy sweetheart is jilted for others', or 'may be a learner faces failure in the entrance examinations and is refused to take admission or may be an emotional chaos which intervenes the bright profession'. Obstacles in the fruition of motivational activity of an individual lead to frustration, which in turn exerts considerable influence upon his conduct. Frustration is the situation or condition of various desires or tendencies being unfulfilled. For example, if a student desires to stand first in his class, but is foiled in his/her goal time and again, he/she is frustrated. Obviously, frustration is the product of obstacles in the course of the one's objective and ambition. Whenever an individual is motivated towards a particular goal whose achievement is interfered with and hindered by the presence of some object or situation, the individual is said to be frustrated.

Academic Achievement

"Achievement is the expertise and level of success achieved in some definite region relating to scholastic efforts".

Achievement refers to educational attainment or scholastic achievement in the education. It refers to success level and expertise which attained in several definite areas related to the scholastic work. This expression or academic achievement can be used interchangeably in this study. The human race is becoming more cooperative and excellence of presentation becomes the key factor for the progress of individual's, in which attainment is vital variable. Amongst many tasks of development, intellectual and skills of academic are important during the middle childhood years for the motivation to master them. Attainment in scholastic is the index for the future of child in this highly competitive world and is merely a drop in the gigantic ocean of education. Sometimes even average students excel in their achievement. Child's achievement depends upon many factors specifically upon the concentration, awareness, motivation, adjustment and interest in reading of the child. An achievement test is used to determine the understanding of student's in a particular subject. To make sure that each and every child is able to make...
most of his abilities is the concern of education. The problem why students achieve or fail to achieve in school has always interested psychologists and educators.

Variables: Academic Achievement, Frustration and Gender.

Objectives of the Study
1. To study the effect of frustration on academic achievement of senior secondary school students.
2. To study the effect of gender on academic achievement of senior secondary school students.
3. To find out the interaction of frustration and gender on academic achievement of senior secondary school students.

Hypotheses of the Study
H₀₁ There exists no significant effect of frustration on academic achievement of senior secondary school students.
H₀₂ There exists no significant interaction of gender on academic achievement of senior secondary school students.
H₀₃ There exists no significant interaction effect of frustration and gender on academic achievement of senior secondary school students.

Methodology
Descriptive survey method was used in the study and independent variables were divided into two categories which discussed below:

Sample
Sample of 650 senior secondary school students of 11th class was selected from the senior secondary schools located in Haryana state by employing multi-stage random sampling technique. Each district randomly selected from out of 4 administrative divisions of Haryana state i.e. Kurushetra from Ambala division, Gurgaon from Gurgaon division, Bhiwani from Hisar division and Rohtak from Rohtak division.

Analysis was done only on high and low scored students on academic achievement. As per requirement of the 2x2 cells of the paradigm, distribution of cells for analysis of interaction effect of risk taking behaviour and gender on academic achievement of senior secondary school students has been illustrated in the Figure 1.

![Schematic Layout of (2×2 Factorial design) for Effect of Frustration and Gender on Academic Achievement of Senior Secondary School Students](image)

Fig. 1: Schematic Layout of (2×2 Factorial design) for Effect of Frustration and Gender on Academic Achievement of Senior Secondary School Students

Tools Used
1. Frustration test by Dr. Dixit and Srivastava (2004)
2. Achievement test of Economics developed by researcher was used to assess the achievement of Economics of 11th class.

Statistical Techniques Used
For the present study, the data were analyzed using descriptive statistics. Two Way analysis of Variance (ANOVA) with 2x2 factorial design was computed using SPSS version to study the main effects and interaction effects of frustration and gender on academic achievement of senior secondary school students.
Data Analysis and Discussion

Main objective of the present study was to find out the main and interaction effects of frustration and gender on academic achievement of senior secondary school students. The independent variables i.e. frustration was coded as A and varied into High frustration (A_1) and Low frustration (A_2), gender was coded as B and varied into Male (B_1) and Female (B_2) respectively. Means and SDs of different sub-samples presented in the Table-1(i) and Figure 1(i). Summary of ANOVA (2x2) presented in Table-1(ii), which is analyzed in terms of main effects and interaction effects.

**Table - 1(i)**

Mean's and S.D's of Sub Samples of (2×2 Design) for Academic Achievement of Senior Secondary School Students in relation to Frustration and Gender

<table>
<thead>
<tr>
<th>Frustration (A)</th>
<th>Gender (B)</th>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Frustration (A_1)</td>
<td>Male (B_1)</td>
<td>89</td>
<td>63.82</td>
<td>13.30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female (B_2)</td>
<td>109</td>
<td>65.03</td>
<td>13.83</td>
<td></td>
</tr>
<tr>
<td>Low Frustration (A_2)</td>
<td>Male (B_1)</td>
<td>173</td>
<td>64.14</td>
<td>13.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female (B_2)</td>
<td>133</td>
<td>69.10</td>
<td>14.83</td>
<td></td>
</tr>
</tbody>
</table>

![Fig 1 (i): Mean Scores of Sub-Samples of (2×2 Design) for Academic Achievement of Senior Secondary School Students in relation to Frustration and Gender](image)

**Table - 1 (ii)**

Summary of Two Way ANOVA (2×2 Factorial Design) for Academic Achievement of Senior Secondary School Students in relation to Frustration and Gender

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>Sum of Squares (SS)</th>
<th>Mean Sum of Squares (MS)</th>
<th>F- ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main Effects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frustration (A)</td>
<td>1</td>
<td>777.14</td>
<td>777.14</td>
<td>4.06 **</td>
</tr>
<tr>
<td>Gender (B)</td>
<td>1</td>
<td>1540.77</td>
<td>1540.77</td>
<td>8.05 **</td>
</tr>
<tr>
<td>Double Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction (A×B)</td>
<td>1</td>
<td>567.73</td>
<td>567.73</td>
<td>2.96 (NS)</td>
</tr>
<tr>
<td>Between Cells</td>
<td>3</td>
<td>2960.88</td>
<td>986.96</td>
<td></td>
</tr>
<tr>
<td>Within Cells</td>
<td>500</td>
<td>123623.39</td>
<td>191.36</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>503</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Main Effects of Frustration and Gender on Academic Achievement of Senior Secondary School Students

Frustration (A)

A glance of Table 1 (ii) found that the F-ratio is 4.06 for the main effect of frustration on academic achievement is significant at 0.05 level of significance. It means that students with high and low level of
frustration differ significantly in relation to their academic achievement. Thus, the proposed hypothesis, H01.1, "There exists no significant main effect of frustration on academic achievement of senior secondary school students" stands rejected. For more exploration, t-value was applied to discover the significance variation among the mean scores of frustration on academic achievement of students of senior secondary and scores for the above said have been presented in the Table 1 (iii).

### Table 1 (iii)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Frustration (A1)</td>
<td>198</td>
<td>64.39</td>
<td>13.54</td>
<td>1.66 (NS)</td>
</tr>
<tr>
<td>Low Frustration (A2)</td>
<td>306</td>
<td>66.52</td>
<td>14.27</td>
<td></td>
</tr>
</tbody>
</table>

NS= Not Significant

An inspection of Table 1 (iii) found that the t-value is 1.66 for the mean scores of high and low frustration which is insignificant at 0.05 level. In the context of mean scores, it was found low frustrated students (66.52) achieved good scores in academics as compared to high frustrated students (64.39). This conclusion is disagreement with Malik (2002) who concluded no differentiation among the frustration of boys and girls. The study is in tune with Sumedha (2006) who concluded that low frustrated students have better scores in academics as compared to high frustrated students. The mean scores for main effect of frustration on academic achievement have been shown in figure 1 (ii).

![Figure 1 (ii): Mean Scores for Main Effect of Frustration on Academic Achievement of senior secondary school students](image)

An inspection of Table 1 (iii) found that the t-value is 1.66 for the mean scores of high and low frustration which is insignificant at 0.05 level. In the context of mean scores, it was found low frustrated students (66.52) achieved good scores in academics as compared to high frustrated students (64.39). This conclusion is disagreement with Malik (2002) who concluded no differentiation among the frustration of boys and girls. The study is in tune with Sumedha (2006) who concluded that low frustrated students have better scores in academics as compared to high frustrated students. The mean scores for main effect of frustration on academic achievement have been shown in figure 1 (ii).

### Gender (B)

F-ratio of Gender is 8.05 vide Table 1 (ii) for the main effect of gender on academic achievement is significant at 0.05 level of significance. It means that gender has considerable main impact on academic achievement of senior secondary school students. Thus, the proposed hypothesis, H01.2, "There exists no significant main effect of gender on academic achievement of senior secondary school students" has been rejected.

For more exploration, t-value was applied to discover the significance differentiation among the mean scores of academic achievement of boys and girls of senior secondary school students. The mean scores for the above said have been presented in the Table 1 (iii).

### Table 1 (iii)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (B1)</td>
<td>262</td>
<td>63.99</td>
<td>13.30</td>
<td></td>
</tr>
<tr>
<td>Female (B2)</td>
<td>242</td>
<td>67.21</td>
<td>14.49</td>
<td>2.60**</td>
</tr>
</tbody>
</table>

** = Significant at 0.01 level

A glance of Table 1(iii) shows that the mean scores of academic achievement of boys and girls (students) is found to be significant at 0.01 level of significance. From the mean scores, it was found that girls (67.21)
are scored more in academics than the boys (63.99). This finding is in disagreement with the result of Joshi et. al. (2006) who revealed that boys experienced more frustration than girls. The mean scores for main effect of gender on academic achievement have been shown in figure 1 (iii).

![Fig. 1 (iii): Mean Scores for Main Effect of Gender on Academic Achievement of senior secondary students](image)

### Double Interaction Effects of Frustration and Gender on Academic Achievement of senior secondary students

**Frustration (C) × Gender (D)**

Table 1(ii) indicates that F-ratio between frustration and gender is 2.96 which is not significant at 0.05 level leading to the inference that ego strength and gender do not interact each other in relation to academic achievement of senior secondary school students. Therefore, the null hypothesis \( H_{o1.3} \) “There exists no significant interaction effect of frustration and gender on academic achievement of senior secondary school students” is retained. Thus, it is inferred that interaction effect of frustration and gender on academic achievement of senior secondary school students is not significant. The present result is in contrast with the findings of Kaur (2014) who concluded that there exists no significant difference in the mean scores of frustration of male and female students. The present findings are in the tune of findings of Bhutia et. al. (2014) who reported that gender affects the frustration, in other words male and female are affected by frustration.

### Conclusion

The present study revealed significant main effects of frustration and gender on academic achievement of senior secondary school students. The double interaction effect of frustration and gender on academic achievement of senior secondary school students was found insignificant leading to the inference that these variables do not interact with each other and had no effect on academic achievement of students. Only teacher can use or mould their energy and enthusiasm in a positive way which helps them in their life. Teacher always play an important job in developing awareness among the students and what makes them a skillful learner, how they receive the accountability of their learning and also helpful in the learning about the knowledge with well-developed perception. Teachers can involve them in sports, arts or any other activities in which they involve themselves completely according to their interests.

### References

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