Self-Confidence and Academic Achievement as predictors of Intelligence

Dr. Shikha Dhall
Principal, G.M.T. College of Education, Ludhiana, Punjab, Pin code-141008, India
dhallp09@gmail.com

Abstract
In the present study an attempt has been made to find out the predictive efficiency of self-confidence and academic achievement for intelligence of secondary school students (further separately for boys and girls). A total sample of 210 students (both boys and girls) of IX class was drawn randomly from government as well as privately managed recognized secondary schools affiliated to Punjab School Education Board from Ludhiana district. Results of the study revealed that self-confidence and academic achievement predict intelligence of secondary school students significantly.

1. Introduction
Education plays an important role in enabling a person to face a real life situation with adequate knowledge. All round betterment will enable us to be prepared and equipped in this fast life to undertake a work efficiently and effectively, leading towards accomplishment of the objective with remarkable ease. The concept of intelligence is becoming increasingly important in modern societies. Intelligence is an inborn weapon which can be applied to master the environment in a short time with the least possible waste. We are born with intelligence; we do not acquire it. Knowledge is a different thing altogether. But without intelligence we cannot obtain knowledge; and with a greater store of knowledge we are equipped to deal with a large number of situations and contingencies in life. Intellectual growth of any child is a resultant of varied and complex factors. Developing country like ours can hardly afford this wastage, moreover, it results in generating frustration and inferiority complex in the minds of the individual, creating a lot of problems for the society. Intelligent and successful individuals have to be confident. It is not just inborn talent and educational achievements that guarantee the success of children. Without self-confidence and proper parental attitude even the most gifted child can not blossom into a good achiever. Steinmayr et al (2008) examined to which extent different motivational concepts contribute to the prediction of school achievement among adolescent students independently from intelligence. A sample of 342 11th and 12th graders (age \( M = 16.94; \ SD = .71 \) ) was investigated. Students gave self-reports on domain-specific values, ability self-perceptions, goals, and achievement motives. Hierarchical regression and relative weights analyses were performed with grades in math and German as dependent variables and intelligence as well as motivational measures as independent variables. Beyond intelligence, different motivational constructs incrementally contributed to the prediction of school achievement.

2. Objective of the study
• Predicting the impact of self-confidence and academic achievement on intelligence of secondary school students further separately for boys and girls.

3. Hypotheses of the study
• Self-confidence and Academic achievement will not be significant predictor of Intelligence among secondary school students.
• Self-confidence and Academic achievement will not be significant predictor of Intelligence among secondary school boys.
• Self-confidence and Academic achievement will not be significant predictor of Intelligence among secondary school girls.

4. Sample of the study
Multi-staged stratified randomization technique of sampling was used in the present study. Four or five schools were selected randomly from Ludhiana district. A sample of 210 students (both boys and girls) of IX class was drawn randomly from government as well as privately managed recognized secondary schools affiliated to Punjab School Education Board from Ludhiana district.

5. Tools Used
• Group test of General Mental Ability by Tandon (1971)
• Self-Confidence Inventory by Agnihotri (1987)

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6. Results and Discussion

Table 1. Values of $R^2$, F-ratio and regression equation of self-confidence, academic achievement and intelligence of secondary school students (N=210)

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>F</th>
<th>Regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-confidence (X2) + Academic achievement (X3)</td>
<td>0.336</td>
<td>52.42</td>
<td>$Y = -25.414 + 0.201(X2) + 1.058 (X3)$</td>
</tr>
</tbody>
</table>

** significant at 0.01 level of significance.

Results of above table 1 observe that combined $R^2$ of self-confidence and academic achievement is 0.336. It means interacting prediction of intelligence by these variables is 33.6%. Value of F-ratio is 52.42, which is significant at 0.01 levels of significance. It leads to the conclusion that interacting prediction for intelligence among secondary school girls by above mentioned variables is statistically significant. Thus the hypothesis (1), “Self-confidence and Academic achievement will not be significant predictor of Intelligence among secondary school students” is not accepted.

Table 2. Values of $R^2$, F-ratio and regression equation of self-confidence, academic achievement, and intelligence of secondary school boys (N=105)

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>F</th>
<th>Regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Confidence (X2) + Academic Achievement (X3)</td>
<td>0.473</td>
<td>45.82</td>
<td>$Y = -32.989 + 0.064(X2) + 1.223 (X3)$</td>
</tr>
</tbody>
</table>

** significant at 0.01 level of significance.

It is observed from the table 2 that combined $R^2$ of self-confidence and academic achievement of secondary school students is 0.473. Thus, the prediction of intelligence by above mentioned variables is 47.3%. Value of F-ratio is 45.82, which is significant at 0.01 levels of significance. Results obtained revealed the fact self-confidence and academic achievement conjointly predicts intelligence significantly for secondary school students. Hence, the hypothesis (2), “Self-confidence and Academic achievement will not be significant predictor of Intelligence among secondary school boys” is not accepted.

Table 3. Values of $R^2$, F and regression equation between self-confidence, academic achievement and intelligence of secondary school girls (N=105)

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>F</th>
<th>Regression equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Confidence (X2) + Academic Achievement (X3)</td>
<td>0.217</td>
<td>14.13</td>
<td>$Y = -13.831 + 0.264 (X2) + 0.871 (X3)$</td>
</tr>
</tbody>
</table>

** significant at 0.01 level of significance .

The perusal of table 3 reveals that value of $R^2$ for self-confidence and academic achievement is 0.217. It shows that above mentioned variables predicts 21.7% intelligence of secondary school students. The value of F-ratio is 14.13, which is statistically significant. So it is clear from the results that self-confidence and academic achievement conjointly predicts intelligence significantly. Thus the hypothesis (3), “Self-confidence and Academic achievement will not be significant predictor of Intelligence among secondary school girls” is not accepted. Rana and Kaur (2003) also revealed that economic, familial, social and school variables were associated and related with intelligence. All the factors were contributing ones. No single factor was solely responsible for the intelligence of the young adolescents. The study revealed that nature as well as nurture, both is responsible for the intelligence of an individual.

7. References