Study of Academic Achievement of Adolescent Students in Relation to their Intelligence and Family Climate

Harleen Kaur, Navdeep Kaur
Research Scholar, Department of Education, G.N.D.U., Amritsar, India
Assistant Professor, Department of Education, G.N.D.U., Amritsar, India

Abstract

The present study aimed at evaluating the academic achievement of adolescent students in relation to their intelligence and family climate. The study revealed that there is a significant relationship between academic achievement, intelligence and family climate of adolescent students. The study also indicated that there is no significant difference in academic achievement of boys and girls. In case of different levels of intelligence achievement differs as it is a classroom climate which affects the academic achievement of the students while students with different types of family climate also differs in their achievement.

Introduction

Adolescence is the period in which the growing individual makes the transition from childhood to adulthood i.e. ‘early’ adolescence from 12 to 15 years, ‘middle’ adolescence from 15 to 18 years and ‘late’ adolescence from 18 to 22 years.

Baunrind describes adolescence as the time when youth must come to face reality and realize that everyone must experience failure, loneliness and sorrow. This process makes the individual to learn how to tolerate, control, sublimate, think rationally, act responsibly, endure sufferings, adjust to that which cannot be altered and serve the community.

Over the years behavioral scientists who observed that some people have an intense need to achieve other perhaps the majority, do not seem to as concerned about achievement. This phenomenon has fascinated David C. Mc Celland (1953). To accomplish their task performance the academic achievements of the individuals matters the most.

Academic achievement is the acquired proficiency in the performance of an individual in a given skill or body of knowledge which helps in the selection promotions on recognition in various walks to life.

Children’s social and academic adjustment contribute to academic achievement. There are few adjustment variables such as-

1. Residence adjustment problems
2. Food adjustment problems
3. Peer group adjustment problems
4. Curriculum adjustment problems
5. Classroom teaching-learning adjustment problems; and
Thus, achievement has become the centre of life which includes all the behavioral changes in the individual as a result of learning experiences of various kinds.

Academic achievement is a complex behavior yet an end product of learning. There is a huge concern among the heads of the institutions, teachers and parents that the academic achievement is determining nowadays. Intelligence is the one factor that influences the achievement so it the teacher who teaches his lesson in consonance with the intellectual abilities of all kinds of children in the classroom.

Intelligence may be considered as the functional effectiveness of mental process of perceiving, remembering, reasoning and helps the individual to adjust and adapt his thinking to changing environment and conditions of his life.

An adolescent’s achievement is not only influenced by intelligence but the family also plays an important role. Family climate includes social and physical activities of child his family members and helps in determining cognitive, social and intellectual development of the children.

In the words of Larson (1974) the quality of parent adolescent relationship is perhaps the most important single determinant of adolescents attitude and behavior. In general terms, adolescents belonging to small family are physically, emotionally, socially and superior in intelligence. In large family, attention is focused on the satisfaction of the needs of whole family, and a very little attention is paid towards the growing needs of the adolescents and sometimes parents feel helpless when they are confronted with their children assertion of independence because parents are not able to understand the reason, on the basis of which their adolescent’s demand freedom & which affects their academic achievement.

Hence it is said that adolescence is the period of stress and strain that influences the academic achievement which is affected by the family climate and also affects the individual’s intelligence.

Emergence of the Problem

As the adolescence is the period of stress and strain and is affected by some internal and as well as external factors which also affects the academic achievement. Therefore parents and teachers should act intelligently to give free environment to the adolescents so as to attain excellence in the academic achievement.

So the view of this research paper highlights the study of academic achievement of adolescent students in relation to their intelligence and family climate.

Statement of the Problem

Study of academic achievement of adolescent students in relation to their intelligence and family climate

Delimitation

The study was delimited to 10th class students of PSEB and CBSE schools of Amritsar only.

Objectives

1. To find out the relationship between academic achievement and intelligence of adolescent students.
2. To find out the relationship between academic achievement and family climate of adolescent students.
3. To study the difference in academic achievement of boys and girls.
4. To study if the students with different levels of intelligence differ in their academic achievement.
5. To study if the students with different type of family climate differ in their achievement.

**Hypotheses**
1. There is a significant relationship between academic achievement and intelligence of adolescent students.
2. There is a significant relationship between academic achievement and family climate of adolescent students.
3. There is no significant difference in the academic achievement of boys and girls.
4. Students with different levels of intelligence will differ in the achievement.
5. Students with different types of family climate will differ in their achievement.

**Methodology**
Methodology makes the most important contribution towards the environment of any study. Descriptive survey method of research was employed by the investigator.

**Sample**
In the present study sample of 200 adolescents (100 boys and 100 girls) were taken using purposive random sampling techniques.

**Tools**
Tools used were:
(i) G.M.A.T by S.S. Jalota and R.K. Tandon
(ii) Family Climate scale by Dr. Beena Shah
(iii) Marks obtained in the 10th class of CBSE and PSEB board for assessing the achievement of adolescents.

**Statistical Analysis**
The collected data was tabulated and analyzed using descriptive statistics namely mean, standard deviation, t-test, correlation to get the results.

**ANALYSIS AND INTERPRETATION**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>r</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intelligence</td>
<td>200</td>
<td>63.245</td>
<td>9.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Achievement</td>
<td>200</td>
<td>65.88</td>
<td>8.6</td>
<td>198</td>
<td>0.73</td>
<td>Significant at 0.01 level.</td>
</tr>
</tbody>
</table>
From table 1, the coefficient of correlation between intelligence and academic achievement is 0.73 which is significant at 0.01 level of significance which means that the success of adolescent students depend upon some amount of intelligence. This result is consistent with the findings of Manas Ranjan Panigrahi (2005) which reveals that there is positive correlation between academic achievement and intelligence of adolescent students.

Table 2
Correlation of academic achievement and family climate of adolescent students

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>r</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Achievement</td>
<td>200</td>
<td>65.86</td>
<td>8.6</td>
<td>198</td>
<td>0.63</td>
<td>significant at 0.01 level.</td>
</tr>
<tr>
<td>Family Climate</td>
<td>200</td>
<td>114.78</td>
<td>14.06</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 2, the coefficient of correlation between academic achievement and family climate is 0.63 which is significant at 0.01 level of significance which is also supported by Akhtar, Syeda (1977) and reveals that abnormal parental attitude may lead to problems like over affection, over protection; over authority, parental incompatibility that leads to the poor academic achievement of adolescent students.

Table 3
Comparison of boys and girls on academic achievement

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>100</td>
<td>62.41</td>
<td>10.88</td>
<td>198</td>
<td>0.34</td>
</tr>
<tr>
<td>Girls</td>
<td>100</td>
<td>66.54</td>
<td>10.35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 3 the t-value comes out to be 0.34 which clearly show that the performance of girls are as good as boys as girls are getting similar exposure as the boys. This result is in line with the findings of M.R. Panigrahi (2005) that no significant difference exists between boys and girls on academic achievement.

Table 4
Comparison of High and Low level of intelligence on academic achievement

<table>
<thead>
<tr>
<th>Intelligence</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>129</td>
<td>66.88</td>
<td>5.97</td>
<td>198</td>
<td>0.428</td>
</tr>
<tr>
<td>Low</td>
<td>71</td>
<td>54.07</td>
<td>4.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 depicts that the mean and SD scores of students with high level intelligence are 66.68 and 5.97 respectively; for students with low level of intelligence, mean and SD scores are 54.07 and 4.29 respectively. The t-value came out to be 0.428 which is not significant at 0.01 level. This study is supported by Burdwan (2005) who reveals that classroom factors like teacher and his experience, position of period in are time table plays a major role in affecting the students academic performance.
Table 5
Comparison of achievement with different types of family climate

<table>
<thead>
<tr>
<th>Family Climate</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>118</td>
<td>64.34</td>
<td>10.88</td>
<td></td>
<td>2.99</td>
</tr>
<tr>
<td>Negative</td>
<td>82</td>
<td>52.49</td>
<td>5.20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5 depicts the mean scores of positive family climate is 64.34 and means scores of negative family climate is 52.49. The SD values of positive family climate and negative family climate is 10.88 and 5.20 respectively. The t-value came out to be 2.99 which is significant at 0.01 level. This result is in line with the findings of Surekha (2008) which shows that in a very strict home, the achievement of adolescent students cannot be acquired feasibly. In very permissive climate, there is a lack of achievement in the adolescent students as the family members are not aware of academic subjects.

Educational Implications

- The primary aim of education is to train the child to adjust in life and solve his personal, economic and social problems and that can be solved if a child is in good institution and where teachers should be more concerned and gives more attention to the child.
- It is the responsibility of the institution to provide congenial environment to the children so as to help them to adapt into every kind of situation.
- The institution should promote their intelligent children by giving them scholarships so as to help them in a future career and enhance the nation’s progress too.

References
Gurubasappa H.D: “Intelligence and self concept as correlates of academic achievement of secondary school students”, Edutracks, Vol. 8, No. 10.