A Study on Academic Achievement of Secondary School Students of Dibang Valley and Lower Dibang Valley Districts of Arunachal Pradesh

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Abstract: The present study investigated the academic achievement of secondary school students in Dibang district of Arunachal Pradesh. The study was conducted on five hundred class-IX students by giving due representation to boys (250) and girls (250) as well as rural and urban localities of Dibang and Lower Dibang Valley districts. The 10 Government and Private secondary schools were selected using stratified random sampling technique, and students were selected using simple random sampling technique. The descriptive survey method is used for data collection. The finding of the study reported that there was not any significant difference in the academic performance of boys and girls school students; and there is no significant difference between in the academic performance of rural and urban secondary school students of Dibang and Lower Dibang Valley districts of Arunachal Pradesh.

Keywords: Academic Achievement and Secondary School Students

1. Introduction

The formal system of education has its own hierarchy based on academic achievement and performance. Academic achievement is the attained ability or degree of competence in school tasks usually measured by standardized tests and expressed in age or grade units or norms derived from a wide sampling of pupil’s performance. It is determined on scores one obtains in tests and examinations. Good performance in learning institutions has always been of interest to educational and counselling psychologists, as well as parents, guardians, teachers, education policy makers. This is the born out of the desire to make the product of teaching-learning, academic performance qualitative. This becomes more pertinent in a success-driven society where academic achievement is a significant measure of success in life. Within the frame of this assertion, researchers and educational psychologists have defined, theorized and conceptualized academic achievement.

2. Review of Related Studies

Dandapani (1976) in the study, “A study of the effect of a group guidance programme upon the academic achievement of high school underachievers” found that academic achievement of the counselled underachievers was significantly greater than that of non-counselled underachievers and normal achievers.

Rajput (1989) studied the educational aspiration and academic achievement of secondary school students with the objective to examine the influence of family factors on the academic achievement of adolescents by taking a sample of 1000 higher secondary school students through stratified random sampling technique and found that the academic achievement of students was influenced in proportion to their parental encouragement; there was no effect of socio economic status on the academic achievement of the students, but academic achievement of urban students was influenced by the socio economic status of family; academic achievement was influenced by their family environment.

Verma (1995) studied academic achievement of girl’s students in relation to their rural, urban background and found that IX grade rural students scored higher than urban students though they had lower level of aspiration and low intelligence quotient. Ecological deprivation was negatively related to achievement.

Jagannadhan (2003) studied the effects of certain socio psychological factors on the academic achievement of students studying in classes VIII to X and found that the three levels of home environment also middle and high obtained 41.38, 47.05 and 62.37 of mean academic achievement respectively. Statistically, the differences between the means yielded a significant effect of home environment on academic achievement ($F=17.23$ at 0.01 level). Home environment yielded a correlation of 0.42 with academic achievement, which was highly significant. The partial correlation between home environment and achievement was 0.179, which was also significant. For boys and girls the respective correlations were 0.391 and 0.450 which were positive and significant.

Diseth (2003) compared intelligence and academic achievement of adolescent boys and girls of IX and XI class and found that among students of class XI there was no difference in the academic achievement of intellectually superior and intellectually very superior boys and girls; at other intellectual levels the academic achievement of girls was superior to that of boys. In general the intelligence test scores of boys were higher than those for the girls; in case of boys there was very high correlation between intelligence test scores and academic achievement whereas in case of girls there was average correlation.

Yomgom, Bige (2009) undertook a study to find out the academic achievement of secondary students in Arunachal Pradesh, and found that there was a wide gap among the different categories of students viz., Male, Female, Tribal and...
Non-tribal in their academic achievement in the subject namely, English, Hindi, Mathematics, Science and Social studies.

3. Need of the Study

The present study has been designed to study the Academic Achievement of secondary school students of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh. Here, the Academic Achievement refers to Educational performances of students studying in schools. How far they are successful in acquiring knowledge, understanding, and skill in different subjects presented to them for study through the curriculum is to be reflected in their Academic Achievement. This study will try to give a picture of the secondary students in class IX final examination by taking into account the marks obtained by them in all subjects. The performance will be analyzed qualitatively, and comparison of performance of males and females as well as their performance in urban and rural schools will be done.

Statement of the Problem
The problem of the present study has been stated as follows: “A Study on Academic Achievement of Secondary School Students of Dibang Valley and Lower Dibang Valley District of Arunachal Pradesh”

4. Objectives of the Study

The study is designed with the following objectives:
1) To study the academic achievement of government and private secondary school students of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh.
2) To find out the difference between rural and urban secondary school students in relation to academic achievement of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh.
3) To compare the gender differences between a. rural b. urban c. government d. private in relation to academic achievement of secondary school students of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh.

5. Hypotheses of the Study

The hypotheses are stated as under:
1) There is no significant mean difference in academic achievement of government and private secondary school students of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh.
2) There is no significant mean difference between rural and urban secondary school students in relation to academic achievement of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh.
3) There is no significant mean difference between male and female of government secondary school students in relation to academic achievement.
4) There is no significant mean difference between male and female of rural secondary school students in relation to academic achievement.
5) There is no significant mean difference between male and female of urban secondary school students in relation to academic achievement.
6) There is no significant mean difference between male and female of private secondary school students in relation to academic achievement.
7) There is no significant mean difference between rural male and female of private secondary school students in relation to academic achievement.
8) There is no significant mean difference between urban male and female of private secondary school students in relation to academic achievement.

Methodology of the Study
The Descriptive approach is used in the study. The present study is a study on academic achievement of Secondary School Students of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh. Keeping in view the nature of study, the survey method was found to be more suitable.

Population of the Study
The population of the present study constituted all the students studying in class IX in secondary schools of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh.

Sample of the Study
The sample is of a small number of representative individuals from the population. This study is conducted on a sample of 500 Students (250 boys and 250 girls) selected randomly from 10 Government and Private secondary schools of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh.

Tools Used
In order to fulfill the objectives of the present study the following tool was used: Academic Achievement Record. The tool is described in the following section:

The Students Performance Record from the Schools
As far as academic achievement of the students was concerned for the purpose of the present study, the investigator visited the selected schools and collected the school records of the selected students i.e. marks obtained by the students in the last annual examination, 2015 (i.e. Class IX annual examination).

Statistical Techniques Used
In this study various statistical measures such as Mean, SD and t-test are used.

6. Result and Discussion

Collected data through above mentioned inventories were analyzed in terms of mean, standard deviation and t-test method. The results have been presented in the tables.

Hypothesis 1: There is no significant mean difference in academic achievement of government and private secondary school students of Dibang Valley and Lower Dibang Valley districts of Arunachal Pradesh.
It is found that the mean scores of both government and private students are 110.28 and 98.27 respectively. When the t-test was applied to test the significance of the mean difference between these groups, it reported a CR(t) value of 6.32. This was found to be highly significant. Hence hypothesis 1 is rejected. This means that there is a great difference in academic performance of government and private secondary students of both the districts.

**Hypothesis 2:** There is no significant mean difference between rural and urban secondary school students in relation to academic achievement of of both the districts.

**Table 2:** Mean, Standard deviation and t-value of the rural and urban secondary school students.

<table>
<thead>
<tr>
<th>Academic Achievement</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rural Students</td>
<td>250</td>
<td>109.96</td>
<td>24.90</td>
<td>2.63</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Urban students</td>
<td>250</td>
<td>104.46</td>
<td>21.76</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is found that the mean scores of both rural and urban students are 109.96 and 104.46 respectively. When the t-test was applied to test the significance of the mean difference between these groups, it reported a CR(t) value of 2.63. This was found to be significant. Hence hypothesis 2 is rejected. This means that there is a great difference in academic performance of both rural and urban secondary students of both the districts.

**Hypothesis 3:** There is no significant mean difference between male and female of government secondary school students in relation to academic achievement.

**Table 3:** Mean, Standard deviation and t-value of male and female government secondary school students.

<table>
<thead>
<tr>
<th>Academic Achievement</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>186</td>
<td>113.12</td>
<td>26.29</td>
<td>2.21</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>186</td>
<td>107.45</td>
<td>23.21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is found that the mean scores of government male and female students are 113.12 and 107.45 respectively. The computed CR(t) between their mean difference is 2.21. Which is found significant at 0.05 level. Hence hypothesis 3 is rejected. This means that there is a great difference in academic achievement of government male and female secondary students of both the districts.

**Hypothesis 4:** There is no significant mean difference between male and female of rural secondary school students in relation to academic achievement.

**Table 4:** Mean, Standard deviation and t-value of the male and female of rural secondary school students.

<table>
<thead>
<tr>
<th>Academic Achievement</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>125</td>
<td>112.25</td>
<td>25.96</td>
<td>4.02</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>100.6</td>
<td>19.48</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is found that the mean scores of male and female of rural students are 112.25 and 100.6 respectively. When the t-test was applied to test the significance of the mean difference between these groups, it reported a CR(t) value of 4.02. This was found to be highly significant. Hence hypothesis 4 is rejected. This means that there is a great difference in academic achievement of male and female rural students of both the districts.

**Hypothesis 5:** There is no significant difference between male and female of urban secondary school students in relation to academic achievement.

**Table 5:** Mean, Standard deviation and t-value of the male and female of urban secondary school students.

<table>
<thead>
<tr>
<th>Academic Achievement</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>125</td>
<td>107.66</td>
<td>23.68</td>
<td>0.22</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>108.32</td>
<td>23.64</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is found that the mean scores of urban male and female students are 107.66 and 108.32 respectively. When the t-test was applied to compare the mean scores of both the groups, it was found that the calculated t-value (=0.22) is less than the table value 1.97 at 0.05% level of significance. This means that the mean difference is not significant. Hence hypothesis 5 is accepted. This further means that urban male and female secondary school students have similar level of academic achievement.

**Hypothesis 6:** There is no significant difference between male and female of private secondary school students in relation to academic achievement.

**Table 6:** Mean, Standard deviation and t-value of the male and female of private secondary school students.

<table>
<thead>
<tr>
<th>Academic Achievement</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>64</td>
<td>100.75</td>
<td>17.49</td>
<td>1.798</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>64</td>
<td>95.75</td>
<td>13.69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is found that the mean scores of male and female of private students are 100.75 and 95.75 respectively. When the t-test was applied to compare the mean scores of both the groups, it was found that the calculated t-value (=1.798) is less than the table value 1.97 at 0.05% level of significance. This means that the mean difference is not significant. Hence hypothesis 6 is accepted. This further means that male and female of private secondary school students have similar level of academic achievement.
Hypothesis 7: There is no significant difference between rural male and female of private secondary school students in relation to academic achievement.

Table 7: Mean, Standard deviation and t-value of the rural male and female of private secondary school students.

<table>
<thead>
<tr>
<th>Academic Achievement</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>32</td>
<td>98.53</td>
<td>18.77</td>
<td>2.17</td>
<td>Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>32</td>
<td>90.16</td>
<td>11.13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is found that the mean scores of male and female of rural students are 98.53 and 90.16 respectively. When the t-test was applied to test the significance of the mean difference these groups, it reported a CR (t) value of 4.02. This was found to be highly significant. Hence hypothesis 4 is rejected. This means that there is a great difference in academic achievement of male and female rural students of Dibang Valley and Lower Dibang Valley districts.

Hypothesis 8: There is no significant mean difference between urban male and female of private secondary school students in relation to academic achievement.

Table 8: Mean, Standard deviation and t-value of the urban male and female of private secondary school students.

<table>
<thead>
<tr>
<th>Academic Achievement</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>32</td>
<td>102.97</td>
<td>15.99</td>
<td>0.42</td>
<td>Not Significant</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>32</td>
<td>101.41</td>
<td>13.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is found that the mean scores of urban male and female of private students are 102.99 and 101.41 respectively. When the t-test was applied to compare the mean scores of both the groups, it was found that the calculated t-value (=0.42) is less than the table value 2.00 at 0.05% level of significance. This means that the mean difference is not significant. Hence hypothesis 8 is accepted. This further means that urban male and female of private secondary schools students have similar level of academic achievement.

7. Conclusion

The study found that there are major differences on academic achievement of secondary school students of Dibang Valley and Lower Dibang Valley districts whether they belong to rural and male/female, govt. male/female, rural male/female, government and private male/female and private rural male/female schools students. But it also reported that there is no difference between urban govt. male and female, private male male and private urban male and female secondary students of both the districts in academic achievement.

8. Suggestions for Further Research

1) The present study is conducted on class-IX students. Similar studies may be undertaken on this variable at the other levels of education as well.
2) Study can also be carried out in cross sectional comparison of various categories of students like poor/rich, tribal/non-tribal and different tribal groups of Arunachal Pradesh.

References


