

A COMPARATIVE STUDY ON INTELLIGENCE OF SECONDARY SCHOOL STUDENTS OF LAKHIMPUR AND KARBI ANGLONG DISTRICTS OF ASSAM

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Abstract: *Intelligence is a power or faculty which helps us in understanding, thinking and reasoning about a thing. Our learning and thinking are possible through intelligence only. It is an organization comprising the abilities of readiness, correctness and of understanding complicated and abstract things and with its help a person shows necessary mental control and action in solving problems. The present study investigated the intelligence of secondary school students in Lakhimpur and KarbiAnglong districts of Assam. The study is conducted on a sample of 800 students comprising of 420 boys and 380 girls selected randomly from 33 Government and Private Schools of the districts. For collection of data descriptive survey method is used for data collection using group test of mental ability constructed and standardized by Dr. S. Jalota. The findings of the study revealed that there is no significant difference in between male and female secondary school students of the districts in relation to intelligence. But a highly significant difference is found in between urban and rural and government and private secondary school students of Lakhimpur and Karbi Anglong districts.*

Key words: *Intelligence, Secondary School Students, Lakhimpur and KarbiAnglong Districts.*

1. INTRODUCTION:

Intelligence is a power or faculty which helps us in understanding, thinking and reasoning about a thing. Our learning and thinking are possible through intelligence only. It is an organization comprising the abilities of readiness, correctness and of understanding complicated and abstract things and with its help a person shows necessary mental control and action in solving problems. It is found to be fairly good predictors of success in school and ability to grasp the situation and solve the problem. It also implies physical ability often it is observed that an active and restless child possesses sharpen intelligence. Thus we may say that intelligence and physical vigorousness and readiness are intimately related. There are various explanations of the term intelligence as given by different eminent persons. A compilation of some definitions is given below.

The dictionary meaning of the term intelligence is the “capacity to acquire and apply knowledge”. It may be explained as the capacity for knowledge and understanding, especially as applied to the handling of novel situations successfully by adjusting behaviours to the total situation.

2. REVIEW OF RELATED LITERATURE:

Makhija(1973) conducted a study on interaction among values, interests and intelligence and its impact on scholastic achievements and the findings of the study were: (i) intelligence had a significantly positive influence on scholastic achievements; (ii) students, who were not oriented to political value, exploited their mental ability to much less extent than those who were highly oriented to it; (iii) students who valued beauty, form, symmetry and grade in their life developed vocational interests in literary pursuit and avoided ,as far as possible, sports and outdoor activities; (iv) students who valued power, competition and renown etc. in their life utilizedtheir mental abilities to excel in crafts and scientific studies.

Balasubramaniam(1993) studied how far intelligence was related to pupil’s academic achievement in English and the major findings were: (i)intelligence of pupils positively influenced their academic achievement in English. (ii) pupils having higher level intelligence preferred English medium classes and urban schools. (iii) sex of the pupils had no influence on their intelligence of as well as academic achievement in English. (iv) pupils preferred schools of different types of management irrespective of their level of intelligence. (iv)the medium of instruction and locality in schools had no influence on pupil’s academic achievement in English. (v) the sex of the pupils and the nature of management of the school had no significant influence on their academic achievement.

Petrill and Wilkerson(2000) conducted a study on intelligence and: a behavioural genetic perspective and examined the relationship between intelligence, standardized tests of intelligence and academic achievement from a behaviour genetic perspective. Results suggested that genetic, shared environmental, non-shared environmental influences had an impact on intelligence and academic achievement. Behavioural genetic studies also suggest that the importance of genes might vary as a function of age.

Panda (2005) did a study on correlation between academic achievement and intelligence of class IX students with the objective to study the relationship between academic achievement and intelligence by taking a sample of 765 secondary school adolescents studying in government aided and private schools and found that there was lower relationship between academic achievement and intelligence in different categories of school and also there was a significant difference in academic achievement of students studying in different categories of school.

Panigrahi(2005) studied academic achievement in relation to intelligence and socio-economic status of high school students with the objective to examine the influence of intelligence and socio-economic status on academic achievement of high school students by taking a sample of 100 students from Bhubaneswar city of Odisha and found that there was significant and positive correlation between academic achievement and intelligence, high intelligence leads to better academic success; a low positive correlation between academic achievement and socio-economic status; there was no significant difference between boys and girls with respect to academic achievement.

Motah, Mahendranath(2008) conducted a study entitled "The Influence of Intelligence and Personality on the Use of Soft Skills in Research Projects among Final Year University Students". The study examined the moderating influence of the "Big Five" model of personality, emotional intelligence and the impact of multiple intelligences on the use of soft skills among Final Year University Students. The work investigated the variables which affect students in the elaboration of their research projects during their final year of study. 187 students reading for their final years were asked to fill out questionnaires comprising questions on the personality traits as proposed in the Big Five model and on Multiple Intelligences. This study provided information about how young students used soft skills in their work and how Multiple Intelligences and their personality influenced the preparation and presentation of their final year project.

Habibollah *et al.*(2010) did a study on "Intelligence and Academic Achievement: an investigation of gender differences". The objective of the study was to examine if a relationship exists between Intelligence and Academic Achievement and if the relationship differs between males and females. Two research questions are examined in this paper (i) what is the relationship between different aspects of Intelligence and Academic Achievement (ii) is there any significant gender differences regarding the relationship between different aspects of creativity and Academic Achievement Participants (N=153; male=105 and female=48) completed creativity test. Cumulative grade point average (CGPA) was used to select the participants. Intelligence was measured using the Catell Culture Fair Intelligence Test (CFIT-3a and b). Pearson Correlation analysis indicated that aspects of intelligence were not related to academic achievement for both males and females. The major finding of the study was: there existed no significant relation between males and females regarding which aspect of intelligence related to academic achievement.

Saikia, Pallabi and Choudhary(2014) conducted a study on "Effect of intelligence on Academic Achievement of secondary school students - A Study in Lakhimpur District of Assam". The objective of the study was to study the Academic Achievement of secondary school students according to gender and place of residence; to determine the level of intelligence to gender and place of residence. This study is conducted on a sample of 100 class X students from government and provincialized schools of Lakhimpur District of Assam. The normative survey method is used for data collection. The major findings of the study were: (i) there is difference between boys and girls student on the academic achievement and test examination. (ii) There is difference between rural and urban student on the academic achievement in the test examination. (iii) it is also found that the mean score of intelligence for both rural and urban students is quite high.

Dutta, J., Chetia Pranab and Soni J.C.(2015), conducted a study on "A Comparative Study of Intelligence of Secondary School Students in Lakhimpur District of Assam". The study found no difference on intelligence in respect of male and females of private and rural male/female private secondary school students. But it reported real difference in overall between government and urban private secondary school students.

3. NEED OF THE STUDY:

The present study has been designed to study Intelligence of secondary school students in Lakhimpur and Karbi Anglong Districts of Assam. Intelligence is an inborn natural power that makes a man capable of overcoming difficulties and problems of life. Intelligence is the necessary condition for achievement. It is impossible to achieve without corresponding intelligence which is comprised of mental abilities. Intelligence is evidenced by past and present achievement and used for predicting future achievement. Intelligence sets up the foundation of achievement and the evidence of same is presented by a large number of researches. In view of number of researches, the researchers of the present study have gone through the study.

4. STATEMENT OF THE PROBLEM:

The problem of the present study is "A Comparative Study on Intelligence of Secondary School Students in Lakhimpur and Karbi Anglong Districts of Assam".

5. OBJECTIVES OF THE STUDY:

The study is designed with the following objectives:

- To compare the intelligence of (a) male and female, (b) urban and rural and (c) government and private secondary school students towards science of Lakhimpur District of Assam.
- To compare the intelligence of (a) male and female, (b) urban and rural and (c) government and private secondary school students towards science of Karbi Anglong District of Assam.
- 3.To compare the intelligence of (a) male and female, (b) urban and rural and (c) government and private secondary school students towards science of Lakhimpur and Karbi Anglong Districts of Assam.

6. HYPOTHESES OF THE STUDY:

- There is no significant mean difference in intelligence scores in science of male and female secondary school students of Lakhimpur district of Assam.
- There is no significant mean difference in intelligence scores in science of urban and rural secondary school students of Lakhimpur district of Assam.
- There is no significant mean difference in intelligence scores in science of government and private secondary school students of Lakhimpur district of Assam.
- There is no significant mean difference in intelligence scores in science of male and female secondary school students of Karbi Anglong district of Assam.
- There is no significant mean difference in intelligence scores in science of urban and rural secondary school students of Karbi Anglong district of Assam.
- There is no significant mean difference in intelligence scores in science of government and private secondary school students of Karbi Anglong district of Assam.
- There is no significant mean difference in intelligence scores in science of male and female secondary school students of Lakhimpur and Karbi Anglong districts of Assam.
- There is no significant mean difference in intelligencescores in science of urban and rural secondary school students of Lakhimpur and Karbi Anglong districts of Assam.
- There is no significant mean difference in intelligence scores in science of government and private secondary school students of Lakhimpur and Karbi Anglong districts of Assam.

7. METHODOLOGY:

The present study is a comparative study on intelligence of secondary school students of Lakhimpur and Karbi Anglong district of Assam. Keeping in view the nature of the study, the descriptive survey method was found to be more suitable.

Population

All the students studying in class X of secondary schools of government and private management of Lakhimpur and Karbi Anglong district form the population.

Sample

The study is conducted on a sample of 800 class X students by giving due representation to boys and girls as well as rural and urban localities and 33 schools are selected using stratified random sampling technique.

Tools Used

The group test of mental ability constructed and standardized by Dr. S. Jalota was employed by the researchers for the purpose of data collection.

8. RESULT AND DISCUSSION:

Data were analysed in terms of Mean, Standard Deviation and t-test method. Following tables interpreted the results hypothesis wise.

Objective: 1.To compare intelligence of (a) male and female, (b) urban and rural and (c) government and private secondary school students of Lakhimpur District of Assam.

Hypothesis: 1. There is no significant mean difference in intelligence scores of male and female secondary school students of Lakhimpur district of Assam.

Table: 1. Mean, SD and t-value of male and female secondary school students of Lakhimpur district of Assam.

Intelligence	Sex	N	Mean	SD	t-value	Remarks
	Male	220	52.22	17.87	2.67	Significant
	Female	200	47.75	16.42		

Interpretation: Comparing the mean scores of both the groups, it is found that the calculated t-value 2.67 is greater than the table value 1.97 at the 0.05% level of significance. This means that mean difference is significant. Hence, null hypothesis is rejected. This means that there is a significant mean difference in intelligence of male and female secondary school students of Lakhimpur district of Assam.

Hypothesis: 2. There is no significant mean difference in intelligence scores of urban and rural secondary school students of Lakhimpur district of Assam.

Table: 2. Mean, SD and t-value of urban and rural secondary school students of Lakhimpur district of Assam.

Intelligence	Locality	N	Mean	SD	t-value	Remarks
	Urban	224	53.18	16.37	3.96	Significant
	Rural	196	46.57	17.62		

Interpretation: To compare the mean scores of both the groups, it was found that the calculated t-value 3.96 is greater than the table value 1.97 at the 0.05% level of significance. This means that mean difference is significant. Hence, hypothesis is rejected. This further means that the urban and rural secondary school students of Lakhimpur district are different in intelligence.

Hypothesis: 3. There is no significant mean difference in intelligences cores of government and private secondary school students of Lakhimpur district of Assam.

Table: 3. Mean, SD and t-value of government and private secondary school students of Lakhimpur district of Assam.

Intelligence	Type	N	Mean	SD	t-value	Remarks
	Government	228	43.13	14.59	9.71	Highly Significant
	Private	192	57.84	16.14		

Interpretation: It is found that the mean scores of both government and private secondary school students are 43.13 and 57.84 respectively. Applying the t-test to compare the mean scores of both the types, it was found that the calculated t-value 9.71 is greater than table value 1.97 at the 0.05% level of significance and this means that difference is significant. Hence, null hypothesis is rejected. This further means that the students studying in both government and private secondary schools are different in intelligence.

Major Findings: The above tables indicate that the male and female students of Lakhimpur district are found to have dissimilar mean scores in intelligence. Similarly, a significant difference is found in intelligence of urban and rural students and between private and government students of Lakhimpur district.

Objective: 2. To compare intelligence of (a) male and female, (b) urban and rural and (c) government and private secondary school students of Karbi Anglong District of Assam.

Hypothesis: 4. There is no significant mean difference in intelligence scores of male and female secondary school students of Karbi Anglong district of Assam.

Table: 4 Mean, SD and t-value of male and female secondary school students of Karbi Anglong district of Assam.

Intelligence	Sex	N	Mean	SD	t-value	Remarks
	Male	200	41.50	16.73	0.50	Not Significant
	Female	180	40.67	15.86		

Interpretation: It is found that the mean scores of both male and female secondary school students are 41.50 and 40.67 respectively. Applying the t-test to compare the mean scores of both the types, the calculated t-value was found 0.50 which is less than table value 1.97 at the 0.05% level of significance and this means that difference is not significant. Hence, null hypothesis is accepted. This means that there is no significant difference in intelligence of male and female secondary school students of Karbi Anglong district.

Hypothesis: 5. There is no significant mean difference in intelligence scores of urban and rural secondary school students of Karbi Anglong district of Assam.

Table: 5. Mean, SD and t-value of urban and rural secondary school students of Karbi Anglong district of Assam.

Intelligence	Locality	N	Mean	SD	t-value	Remarks
	Urban	230	44.85	16.86	6.02	Significant
	Rural	150	35.37	13.66		

Interpretation: To compare the mean scores of both the groups, it was found that the calculated t-value 6.02 is greater than the table value 1.97 at the 0.05% level of significance. This means that mean difference is significant.

Hence, hypothesis is rejected. This further means that the boys and girls of both urban and rural areas secondary schools are different in intelligence.

Hypothesis: 6. There is no significant mean difference in intelligence scores of government and private secondary school students of Karbi Anglong district of Assam.

Table:6. Mean, SD and t-value of government and private secondary school students of Karbi Anglong district of Assam.

Intelligence	Type	N	Mean	SD	t-value	Remarks
	Government	210	37.69	14.14		
	Private	170	45.48	17.84		

Interpretation: It is found that the mean scores of both government and private secondary school students are 37.69 and 45.48 respectively. Applying the t-test to compare the mean scores of both the types, it was found that the calculated t-value 4.63 is greater than table value 1.97 at the 0.05% level of significance and this means that difference is significant. Hence, null hypothesis is rejected. This further means that the students studying in both government and private secondary schools are different in their intelligence.

Major Findings: The above tables indicate that the male and female students are found to have similar intelligence level. But a significant difference is found in intelligence of urban and rural students and between private and government students of Karbi Anglong district.

Objective: 3. To compare intelligence of (a) male and female, (b) urban and rural and (c) government and private secondary school students of Lakhimpur and Karbi Anglong Districts of Assam.

Hypothesis: 7. There is no significant mean difference in intelligence scores of male and female secondary school students of Lakhimpur and Karbi Anglong districts of Assam.

Table: 7. Mean, SD and t-value of male and female secondary school students of Lakhimpur and Karbi Anglong districts of Assam.

Intelligence	Sex	N	Mean	SD	t-value	Remarks
	Male	420	46.86	17.30		
	Female	380	44.21	16.14		

Interpretation: Table reported a t-value 1.10. This was found not significant. Hypothesis is accepted. This means that there is no significant difference in intelligence of male and female secondary school students of Lakhimpur and Karbi Anglong districts.

Hypothesis: 8. There is no significant mean difference in intelligence scores of urban and rural secondary school students of Lakhimpur and Karbi Anglong districts of Assam.

Table: 8. Mean, SD and t-value of urban and rural secondary school students of Lakhimpur and Karbi Anglong districts of Assam.

Intelligence	Locality	N	Mean	SD	t-value	Remarks
	Urban	454	49.02	16.62		
	Rural	346	40.97	15.64		

Interpretation: To compare the mean scores of both the groups, it was found that the calculated t-value 7.02 is greater than the table value 1.96 at the 0.05% level of significance. This means that mean difference is significant. Hence, hypothesis is rejected. This further means that the students of both urban and rural areas are different in intelligence.

Hypothesis: 9. There is no significant mean difference in intelligence scores of government and private secondary school students of Lakhimpur and Karbi Anglong districts of Assam.

Table: 9. Mean, SD and t-value of government and private secondary school students of Lakhimpur and Karbi Anglong districts of Assam.

Intelligence	Type	N	Mean	SD	t-value	Remarks
	Government	438	40.41	14.37		
	Private	362	51.66	16.99		

Interpretation: It is found that the mean scores of both government and private secondary school students are 40.41 and 51.66 respectively. Applying the t-test to compare the mean scores of both the types, it was found that the calculated t-value 9.99 is greater than table value 1.96 at the 0.05% level of significance and this means that difference is significant. Hence, null hypothesis is rejected. This further means that the students studying in government and private secondary schools are different in intelligence.

Major Findings: The above tables indicate that the male and female students are found to have similar mean scores in intelligence. But a significant difference is found in intelligence of both urban and rural students and both private and government students of Lakhimpur and Karbi Anglong District.

9. CONCLUSION:

The study found no significant difference between male and female secondary school students of the districts in relation to intelligence. But a highly significant difference is found in between urban and rural and government and private secondary school students of Lakhimpur and Karbi Anglong districts. This further means that urban and private students are more intelligent than rural and government secondary students respectively.

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