

Effect of Socio-Economic Status on Academic Achievement of Secondary Students in the District of North 24 Parganas

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Abstract: This Paper attempts to study the Effect of Socio-Economic Status on Academic Achievement of secondary Students in the District of North 24 Parganas. This research explores the issue of family socio-Economic status on students academic achievement in secondary school. The work revealed parental level of education may effect students reading habit. It recommended that parent should diversity their sources of income so, that they can provide for their children in schools.

Keywords: Socio-Economic Status, Academic Achievement, Secondary School Students.

Introduction:

“Success is not measured by what you accomplish but by the opposition you have encountered, and the courage with which you have maintained the struggle against overwhelming odds.”

— Orison Swett Marden

“As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality.”

— Albert Einstein

With a change in scenario, a thrust on technology, rapid industrialization and modern materialistic achievement, education has undergone a drastic change. A person's education has become an indicator of his status in society. The scores in examination decide about the level of intelligence whereas the education is linked to the life chances, income and well-being. Therefore it is important to have a clear understanding of what benefits or hinders ones educational attainment. Opportunities of education depend upon the economic background decides the type of school a child can attend which further affects their growth and academic achievement. Environment and parent education both play a vital role on academic achievement of children. There are many more factors like aptitude, attitude, motivation which govern the academic achievement of a child. Although cognitive abilities of the students and their socio-economic backgrounds are important predictors of achievement. The strongest effects are those of academic achievement depends on their socio-economic status.

1.1. Objectives of the study:

1. To study and find out the problems faced by the secondary students in their academic achievement based on socio-economic status.

2. To study and compare the secondary students about their level of academic achievement under different categorical variables of locality (Rural and Urban) and Gender (Male and Female) with respect to their socio-economic status.
3. To find out the academic achievement among the rural secondary boys and girls with respect to their socio-economic status.
4. To find out the academic achievement among the urban secondary boys and girls with respect to their socio-economic status.
5. To study the relationship among Rural and Urban secondary students (boys and girls) in their academic achievement with respect to their socio-economic status.

1.2. Hypotheses:

In keeping with objectives of the study the following research hypotheses are formulated against empirical data:

Ho1: There is no significant difference of the secondary students in their academic achievement with respect to their socio-economic status.

Ho2: There is no significant difference about their academic achievement under different categorical variables of locality (Rural and Urban) and Gender (Male and Female) with respect to their socio-economic status.

Ho3: There is no significant difference in their academic achievement among the rural secondary boys and girls with respect to their socio-economic status.

Ho4: There is no significant difference in their academic achievement among the urban secondary boys and girls with respect to their socio-economic status.

Ho5: There is no significant relationship among Rural and Urban secondary students (boys and girls) in their academic achievement with respect to their socio-economic status.

1.3. Methodologies of the study:

The study is based on primary data which have been collected through a structured questionnaire by using Random sampling from 200 respondents of secondary school.

1.3.1. Population:

All Bengali medium secondary school students (IX-X) of North 24 Parganas district in West Bengal affiliated by W.B.B.S.E.

1.3.2. Sample and Sampling Procedure:

The sample of the study comprised 200 students- 50 from each of urban boys, urban girls, rural boys and rural girls of secondary class (IX-X) selected from the four schools convenient sampling will be considered as sampling technique.

1.3.3. Sample Frame:

No. of school	Types of secondary school	Gender	Boys	Girls	Total no. of students
		Location			
2	Government aided	Urban	50	50	100
2	Government aided	Rural	50	50	100
Total no. of students			100	100	200

1.3.4. Variables of the Study:

In this study, the investigator will consider the following variables-

1.3.4.1. Major Variables:

i. Socio-Economic Status.

ii. Academic Achievement.

1.3.4.2. Categorical Variables:

i. Locality: (a) Rural and (b) Urban

ii. Gender (a) Male and (b) Female

1.4. Tools:

1.4.1. Effect of Socio-Economic Status Scale (SESS):

This tool will be constructed by the investigator with the help of his supervisors. The item will be constructed on the basis of the data collected from the secondary students. The categories of responses 'strongly agree', 'agree', 'disagree', 'strongly disagree' and '4', '3', '2', '1' were the respective scores awarded for the responses to positive items.

1.4.2. Students Academic Achievement (SAA):

The item will be constructed on the basis of the data collected from the secondary students of class VIII-IX pass school students from the school record.

1.5. Procedure of Data collection:

The researcher will be visited to the secondary schools personally and the students will be given short instruction regarding the feeling in of their response after that the too(SESS)l will give to them and the required approximately 60 minutes to completing. Also, Students Academic Achievement (SAA) will be constructed on the basis of the data collected from the secondary students of class VIII-IX pass school students from the school record.

1.6. Techniques of data analysis & data interpretation:

The collected data was analyzed and interpreted using various statistical measures. Descriptive Statistics such as Mean, Median, Mode, SD and inferential statistics such as t-Test: Sample Assuming Two-equal variances, Correlations will be employed (as required) in this study.

1.7. Analysis and Interpretation of data:

1.7.1 Software Used:

The raw data were tabulated in MS Excel 2007 and analysis of data was done through MS Excel 2007 too.

1.7.2 Descriptive statistics:

Table 1.T.1 Descriptive statistics of the Socio-Economic Status:

NAME OF THE SCALE	NUMBER OF SAMPLE	RANGE	MEAN	MEDIAN	MODE	S.D.	Skewness	Kurtosis
SOCIO-ECONOMIC STATUS	200	45	68.96	67.00	66.0	9.6352	0.386	-0.397

The descriptive statistics of the Socio-Economic Status (Table 1.T.1) shows that the mean score is 68.96 for secondary level school students with standard deviation of 9.5264. The median value is calculated as 67 for secondary school students. The mode 66 indicates that the most repeated score in the Socio-Economic Status is 66. The calculated skewness (0.386) and kurtosis (-0.397) values for secondary school students are low indicating the slightly negatively kurtosis and slightly flat nature of the score distribution. The graphical representation of the frequency of the scores of secondary school students in Socio-Economic Status is presented in Figure 1.F.1 showing the nature of distribution.

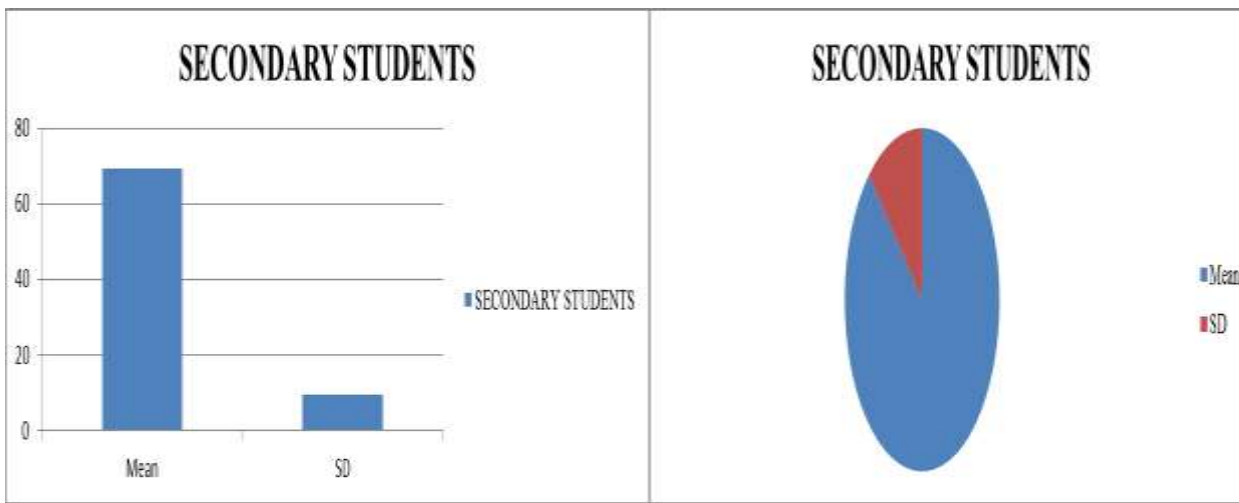


Figure 1.F.1 shows Histogram and Pie-diagram of Socio-Economic Status.

Table 1.T.2 Descriptive statistics of the Academic Achievement:

Locality	Gender	No. of Students	No. of Students Scored 0-40% Marks	No. of Students Scored 40-60% Marks	No. of Students Scored 60-80% Marks	No. of Students Scored Above 80% Marks
Urban	Boys	50	14	13	16	7
Rural		50	16	14	14	6
Total		100	30	27	30	13
Urban	Girls	50	11	16	14	9
Rural		50	13	17	12	8
Total		100	24	33	26	17

Table 1.T.2 shows that the No. of Students Scored 0-40%, 40-60%, 60-80%, above 80% Marks i.e. the descriptive statistics of the Academic Achievement with respect to percentage of marks of the secondary level school students.

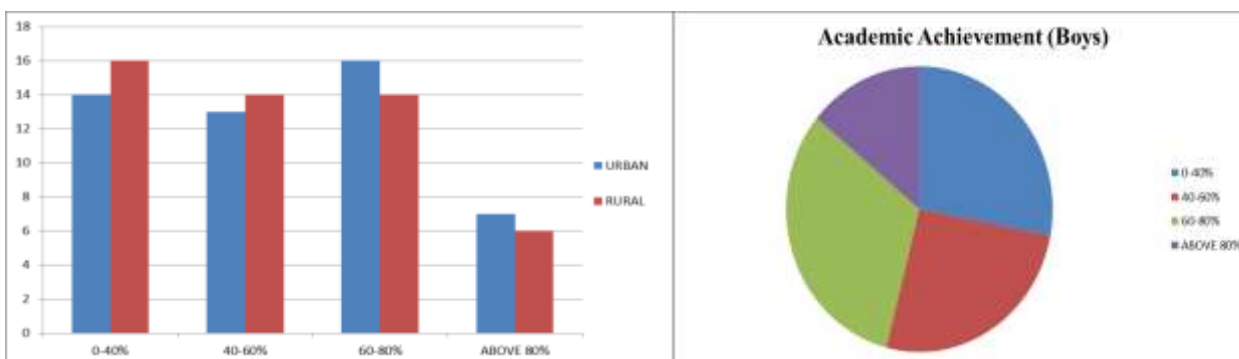


Figure 1.F.2 shows Histogram and Pie-diagram of Academic Achievement (Boys).

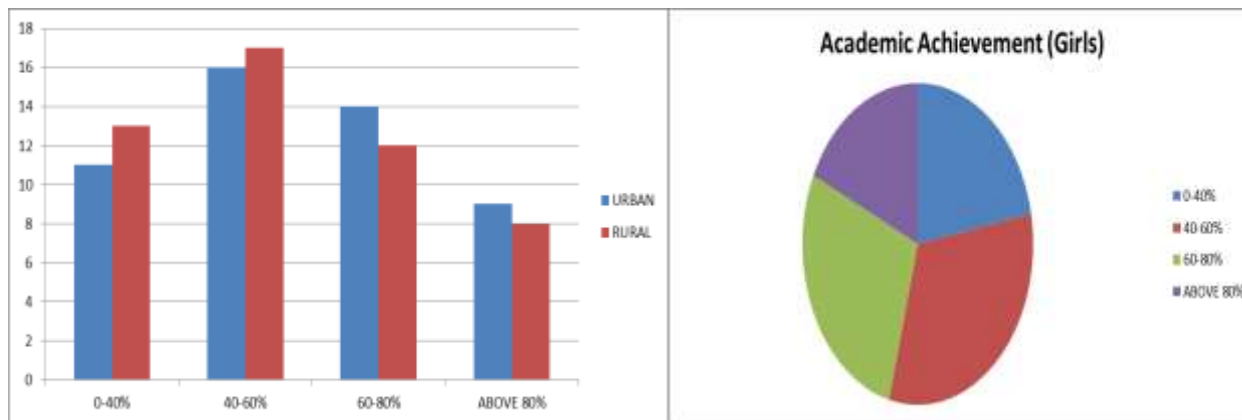


Figure 1.F.3 shows Histogram and Pie-diagram of Socio-Economic Status (Girls).

Table 1.T.4 Descriptive statistics of the Socio-Economic Status with respect to Locality:

NAME OF THE SCALE	LOCALITY	NUMBER OF SAMPLE	RANGE	MEAN	MEDIAN	MODE	S.D.	Skewness	Kurtosis
SOCIO-ECONOMIC STATUS	URBAN	100	40.0	68.57	67.0	69.0	8.574	0.468	-0.317
	RURAL	100	44.0	67.65	66.5	66.0	10.643	0.338	-0.476

The descriptive statistics of the Socio-Economic Status with respect to Locality (Table 1.T.4) shows that the mean scores are 68.57 and 67.65 for secondary school students with standard deviation of 8.574 and 10.643. The median values (67, 66.50) and the modes (69, 66) for secondary school students. The calculated skewness (0.468, 0.338) and kurtosis (-0.317, -0.476). The graphical representation of the frequency of the scores of secondary school students in Socio-Economic Status is presented in Figure 1.F.4 showing the nature of distribution.

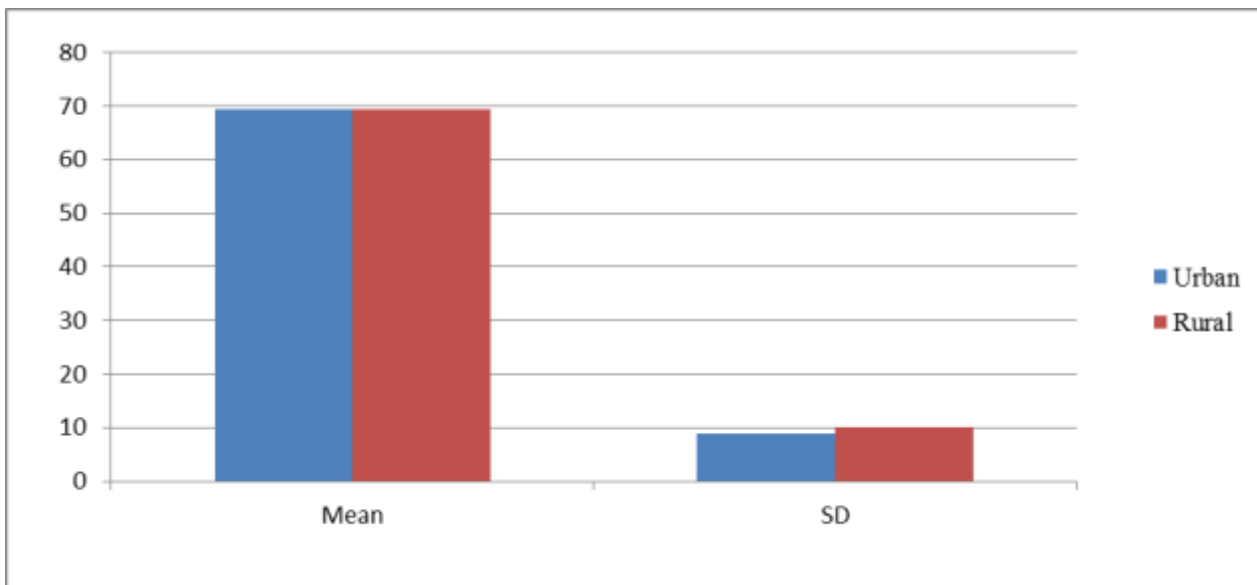


Figure 1.F.4 Histogram of Socio-Economic Status with respect to Locality.

Table 1.T.5 Descriptive statistics of the Academic Achievement with respect to Locality:

NAME OF THE SCALE	LOCALITY	NUMBER OF	RANGE	MEAN	MEDIAN	MODE	S.D.	Skewness	Kurtosis
Academic Achievement	URBAN	100	48	23.74	22.0	22.0	10.634	1.127	1.328
	RURAL	100	68	24.65	19.7	14.0	13.257	1.643	2.638

The descriptive statistics of the Academic Achievement with respect to Locality (Table 1.T.5) shows that the mean scores are 23.74 and 24.65 for secondary school students with standard deviation of 10.634 and 13.257. The median values (22, 19.7) and the modes (22, 14) for secondary school students. The calculated skewness (1.127, 1.643) and kurtosis (1.328, 2.638). The graphical representation of the frequency of the scores of secondary school students in Academic Achievement is presented in Figure 1.F.5 showing the nature of distribution.

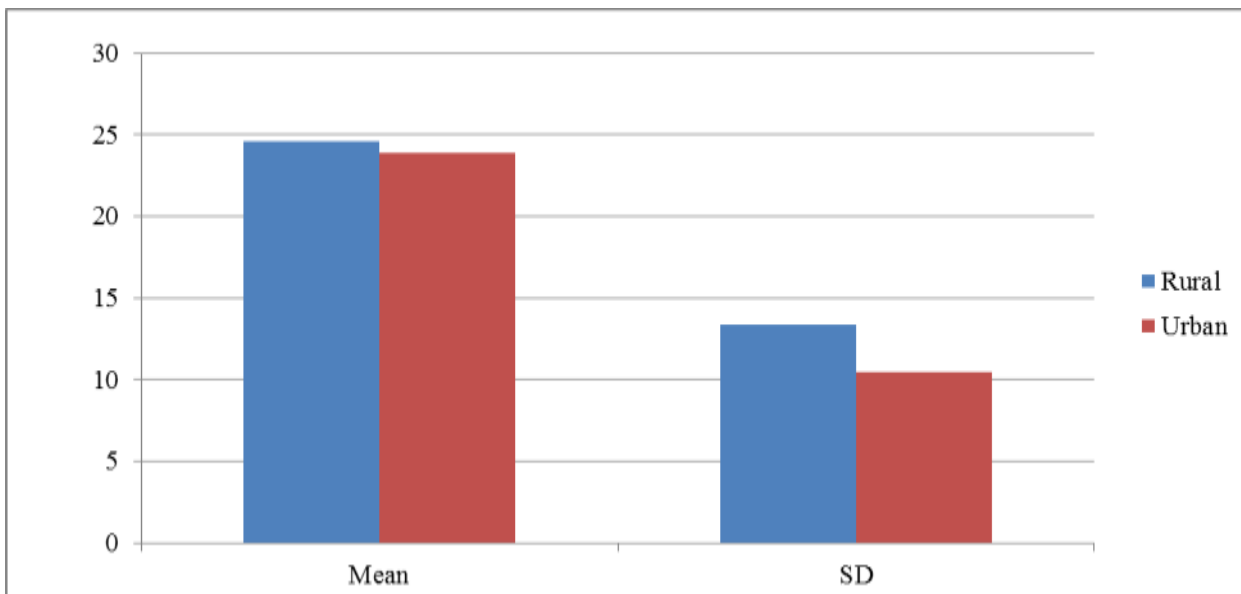


Figure 4.F.4 Histogram of Academic Achievement with respect to Locality.

Table 1.T.6 Descriptive statistics of the Socio-Economic Status with respect to Gender:

NAME OF THE SCALE	GENDER	NUMBER OF SAMPLE	RANGE	MEAN	MEDIAN	MODE	S.D.	Skewness	Kurtosis
SOCIO-ECONOMIC STATUS	BOYS	100	45	69.86	69.0	66	8.784	-0.038	-0.117
	GIRLS	100	39	68.75	66.8	63	10.281	0.689	-0.473

The descriptive statistics of the Socio-Economic Status with respect to Gender (Table 1.T.6) shows that the mean scores are 69.86 and 68.75 for secondary school students with standard deviation of 8.784 and 10.281. The median values (69, 66.80) and the modes (66, 63) for secondary school students. The calculated skewness (-0.038, 0.689) and kurtosis (-0.117, -0.473). The graphical representation of the frequency of the scores of secondary school students in Socio-Economic Status is presented in Figure 1.F.6 showing the nature of distribution.

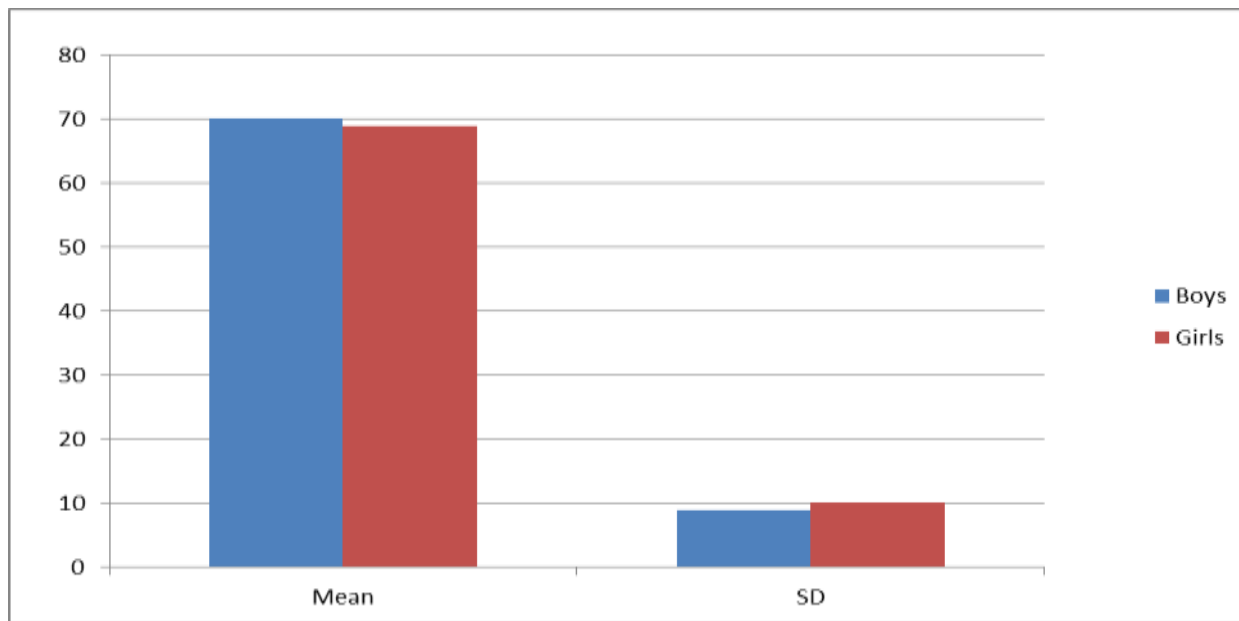


Figure 1.F.6 Histogram of the Socio-Economic Status with respect to Gender.

Table 1.T.7 Descriptive statistics of the Academic Achievement with respect to Gender:

NAME OF THE SCALE	GENDER	NUMBER OF SAMPLE	RANGE	MEAN	MEDIAN	MODE	S.D.	Skewness	Kurtosis
ACADEMIC ACHIEVEMENT	BOYS	100	67	24.53	20.0	11	13.269	1.546	2.216
	GIRLS	100	41	23.75	22.6	22	9.712	0.839	0.0478

The descriptive statistics of the Academic Achievement with respect to Gender (Table 1.T.7) shows that the mean scores are 24.53 and 23.75 for secondary school students with standard deviation of 13.269 and 9.712. The median values (20, 22.6) and the modes (11, 22) for secondary school students. The calculated skewness (1.546, 0.839) and kurtosis (2.216, 0.0478). The graphical representation of the frequency of the scores of secondary school students in Academic Achievement is presented in Figure 1.F.7 showing the nature of distribution.

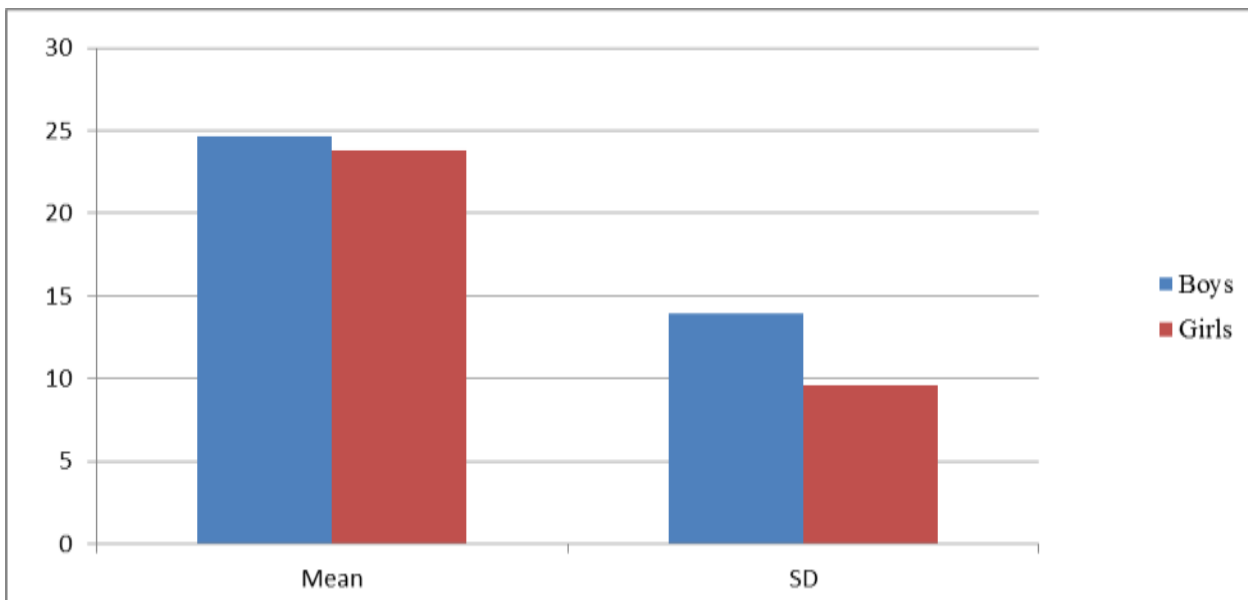


Figure 1.F.7 Histogram of the Academic Achievement with respect to Gender.

1.7.3. Hypotheses Testing And Analysis Through t-Test: Two-Sample Assuming Equal Variances.

H_0 : There is no significance difference between urban and rural of secondary students with respect to their socio-economic status.

Table 1.T.8 showing the significant of difference between the mean scores of urban and rural of secondary level school students with respect to their socio-economic status.

Testing of Hypothesis	Test Variable	Groups	N	Mean(M)	S.D.	df	t value	Sig. (2-tailed) value	Remark
H_0	SOCIO-ECONOMIC STATUS	Urban	100	68.57	8.574	198	.146	.979	$p = .979$ at 0.05 level
		Rural	100	67.65	10.643				

From the Table 1.T.8, the results of independent samples t-test reveal that the calculated t value is .146 and p -value is .979 which is greater than 0.05 at 0.05 level of significance ($p > 0.05$). Hence H_0 is not significant ($p = .979$) at 0.05 level.

H₀₂: There is no significance difference between urban and rural of secondary students with respect to their academic achievement.

Table 1.T.9 showing the significant of difference between the mean scores of urban and rural of secondary level school students with respect to their academic achievement.

Testing of Hypothesis	Test Variable	Groups	N	Mean(M)	S.D.	df	t value	Sig. (2-tailed) value	Remark
H₀₂	ACADEMIC ACHIEVEMENT	Urban	100	23.74	10.634	198	.437	.578	p=.578 at 0.05 level
		Rural	100	24.65	13.257				

From the above table (Table 1.T.9), the results of independent samples t-test shows that the calculated t value is .437 and *p*-value is .578 which is greater than 0.05 at 0.05 level of significance ($p > 0.05$). Hence H₀₂ is not significant ($p = .578$) at 0.05 level.

H₀₃: There is no significance difference between boys and girls of secondary students with respect to their socio-economic status.

Table 1.T.10 showing the significant of difference between the mean scores of boys and girls of secondary level school students with respect to their socio-economic status.

Testing of Hypothesis	Test Variable	Groups	N	Mean(M)	S.D.	df	t value	Sig. (2-tailed) value	Remark
H ₀₃	SOCIO-ECONOMIC STATUS	Boys	100	69.86	8.784	198	.865	.394	p = .394 at 0.05 level
		Girls	100	68.75	10.281				

From the above table (Table 1.T.10), the results of independent samples t-test shows that the calculated t value is .865 and p-value is .394 which is greater than 0.05 at 0.05 level of significance ($p > 0.05$). Hence H₀₃ is not significant ($p = .394$) at 0.05 level.

H₀₄: There is no significance difference between urban and rural of secondary students with respect to their academic achievement.

Table 1.T.11 showing the significant of difference between the mean scores of urban and rural of secondary level school students with respect to their academic achievement.

Testing of Hypothesis	Test Variable	Groups	N	Mean(M)	S.D.	df	t value	Sig. (2-tailed) value	Remark
H₀₄	ACADEMIC ACHIEVEMENT	Boys	100	24.53	13.269	198	.463	.669	p = .669 at 0.05 level
		Girls	100	23.75	9.712				

From the above table (Table 1.T.11), the results of independent samples t-test shows that the calculated t value is .463 and *p*-value is .669 which is greater than 0.05 at 0.05 level of significance ($p > 0.05$). Hence H₀₄ is not significant ($p = .669$) at 0.05 level.

1.7.4. Hypothesis Testing and Analysis through Pearson Coefficient or Correlation and Multiple Regression.

Ho5: There has no significant relationship among Rural and Urban secondary students (boys and girls) on academic achievement with respect to their socio-economic status.

Table 1.T.12 Descriptive statistics:

NAME OF THE SCALE	NUMBER OF SAMPLE	MEAN	S.D.
SOCIO-ECONOMIC STATUS	200	68.96	9.6352
ACADEMIC ACHIEVEMENT	200	24.67	11.4893

Table 1.T.13 Pearson Coefficient or Correlation and Multiple Regressions

		SOCIO-ECONOMIC STATUS	ACADEMIC ACHIEVEMENT
SOCIO-ECONOMIC STATUS	Pearson Correlation	1	0.546**
	Sig. (2-tailed)		.018
	N	200	200
ACADEMIC ACHIEVEMENT	Pearson Correlation	0.546**	1
	Sig. (2-tailed)	.018	
	N	200	200

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The coefficient of correlation between academic achievement and their socio-economic status of secondary level school students is calculated as .546 (Table 1.T.13) which is significant at 0.01 level. It indicates that the school students academic achievement with respect to their socio-economic status is significantly related.

1.8. Major Findings:

The major findings of the study are given bellow (with corresponding **Objective/Hypothesis**):

1.8.1. H₀₁ is not significant ($p = .979$) at 0.05 level. So, for the scores on the socio-economic status between urban and rural students, the null hypothesis is not rejected. It can be commented that there exists no significant difference between urban and rural secondary students with respect to their socio-economic status.

1.8.2. H₀₂ is not significant ($p = .578$) at 0.05 level. So, for the scores on the academic achievement between urban and rural students, the null hypothesis is not rejected. It can be commented that there exists no significance difference between urban and rural secondary students with respect to their academic achievement.

1.8.3. H₀₃ is not significant ($p = .394$) at 0.05 level. So, for the scores on the socio-economic status between boys and girls students, the null hypothesis is not rejected. It can be commented that there exists no significance difference between boys and girls secondary students with respect to their socio-economic status.

1.8.4. H₀₄ is not significant ($p = 0.671$) at 0.05 level. So, for the scores on achievement in mathematics between boys and girls students, the null hypothesis is not rejected. It can be commented that there exists no significance difference between urban and rural secondary students with respect to their academic achievement.

1.8.5. The coefficient of correlation between academic achievement and their socio-economic status of secondary level school students is calculated as .546, which is significant at 0.01 level. It indicates that academic achievement and their socio-economic status of secondary level school students are significantly related.

1.9. Limitations of the Study:

In this particular sector, students improve their skill of objective thinking, power of expression and ability of writing. This sector of the curriculum, although in small time frame, made us not only learn, but also go through various steps of research work.

In this study, the researcher dealt with secondary school students academic achievement and their socio-economic status. The students gender and locality were considered as categorical variables. The main objective of this study is to find out the relationship between secondary school students academic achievement and their socio-economic status. Apart from that, the major variables are considered under above mentioned categorical variables.

Descriptive Research Methodology with survey technique has been used in the present study. The present study is quantitative in nature. The researcher has taken 200 samples for this study. After analysis the data, it is shown that positive correlation exists between secondary school students academic achievement and their socio-economic status.

1.10. Discussion:

1.9.1. There exists significant effect between urban and rural students with respect to their socio-economic status.

1.9.2. It can be remarked that there exists no significance difference between urban and rural of secondary students with respect to their academic achievement.

1.9.3. It can be stated that there exists no significant effect between boys and girls of secondary students with respect to their socio-economic status.

1.9.4. It can be commented that there exists no significant effect between urban and rural of secondary students with respect to their academic achievement.

1.9.5. It can be concluded that academic achievement and their socio-economic status of secondary level school students are significantly related.

1.11. Conclusion:

As suggested by NCTE dissertation as an integral part of the M.Ed. curriculum. It gives us opportunity to get a firsthand experience about a research work. In this particular sector, students improve their skill of objective thinking, power of expression and ability of writing. This sector of the curriculum, although in small time frame, made us not only learn, but also go through various steps of research work. It is very much helpful for our future endeavors. In this study for the all secondary school students of West Bengal exists no significant effect under the categorical variables with respect to their socio-economic status. It can be concluded that academic achievement and their socio-economic status of secondary level school students are significantly related.

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