

CHAPTER – IV

ANALYSIS AND INTERPRETATION OF

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Data analysis is combination of various simple parts and putting them in new arrangement for the purpose of interpretation. Analysis of data, particularly in this case, involves estimating the value of unknown parameters of the population and testing of hypothesis for drawing inferences. Analysis of data also deals with quantitative as well as qualitative characteristics of the variables. In analysis of data, statistics plays an important role as it is an indispensable tool on research work. It is a body of mathematical techniques and processes used for organizing, analyzing and interpreting the available data. So, the data have no meaning in themselves unless they are analyzed appropriately and interpreted logically.

In present study, the investigator processed analyses of the data are categorized into descriptive and inferential analysis.

DESCRIPTIVE ANALYSIS

It deals with the study of distribution of variables which may provide the profile of different characteristics one or more variable. In this level the investigator first uses simple percentage analysis for quantitative analysis of various groups of data in percentage. Line graph and bar graph are used to present the data with a pictorial treatment. Firstly, the percentage of sample groups are determined in the percentage analysis tables on the basis of the scores obtained through the socio-economic status scale and academic achievement of Karbi students. Secondly, the descriptive statistical analyses are used through various statistics on the sample, i.e. Mean and Standard Deviation.

INFERENCEAL ANALYSIS

It is concerned with the various tests of significance for testing hypotheses in order to determine with what validity data can be said to indicate some conclusions. It is mainly on the basis of inferential analysis that the task at interpretation drawing inferences and conclusion of the investigation is performed.

Inferential analysis mainly concerned with certain statistical inferences to enable to the investigator to generalize from a sample.

In this study, the t-test is used to determine the Mean differences of academic achievements among the urban and rural Karbi students. In the t-test, $\pm 1.96 \delta$ mark off point along the base line of a normal distribution to the left and right of which lie 5% at the cases. When the calculated t value is $\pm 1.96 \delta$ or more we may reject a null hypothesis at .05 levels of significant.

Further, $\pm 2.58 \delta$ mark off point to the left and right of which lie 1% of the cases in a normal distribution. So, if the calculated t value is $\pm 2.58 \delta$ or more we may reject the null hypothesis at .01 levels of significant.

In this study, the investigator also used Pearson's coefficient of correlation method to determine the significant effect of socio-economic variable on the academic achievement of urban and rural Karbi students. The value 'r' is compared with given degree of freedom at 0.05 levels and as well as 0.01 levels of significant. If the 'r' value is equal or exceeds the limit value then the result is said to be significant and 'r' value is below the limit value then the result is said to be insignificant.

ANALYSIS OF DATA

4.1 ANALYSIS OF DATA RELATED TO THE ACADEMIC ACHIEVEMENT OF KARBI STUDENTS IN H.S.L.C. EXAMINATION.

Objective 1: To study the academic achievement of Karbi students in H.S.L.C.

Examination.

Academic achievement of the Karbi students are measured by the total marks obtained by the Karbi students at the end of H.S.L.C. Examination conducted by SEBA in the academic years of 2012, 2013 and 2014. The percentages obtained by Karbi students are considered as the measured of their academic achievements. Central Tendencies, Percentage, Mean and Standard Deviation are used to find out the academic achievements levels of Karbi students in H.S.L.C. Examination.

Table 4.1 Showing the Mean differences of academic achievement of Karbi students in H.S.L.C. Examination.

Category	N	M	S.D.
First Division	32	64.38	3.61
Second Division	102	51.53	4.25
Third Division	166	38.37	3.52
Total	300		

Table 4.1 shows the Mean and Standard Deviation scores achieved by Karbi students in H.S.L.C. Examination. Total 32 Karbi students are passed in first division which Mean and Standard Deviation scores are 64.38 and 3.61. Total 102 Karbi students are passed in second division and their Mean and Standard Deviation scores are 51.53 and 4.25. It is found that 166 Karbi students are passed in third division which Mean and Standard Deviation scores are 38.37 and 3.52. However, from Mean and Standard Deviation values, it may be concluded that majority of Karbi students are passed in third division in H.S.L.C. Examination.

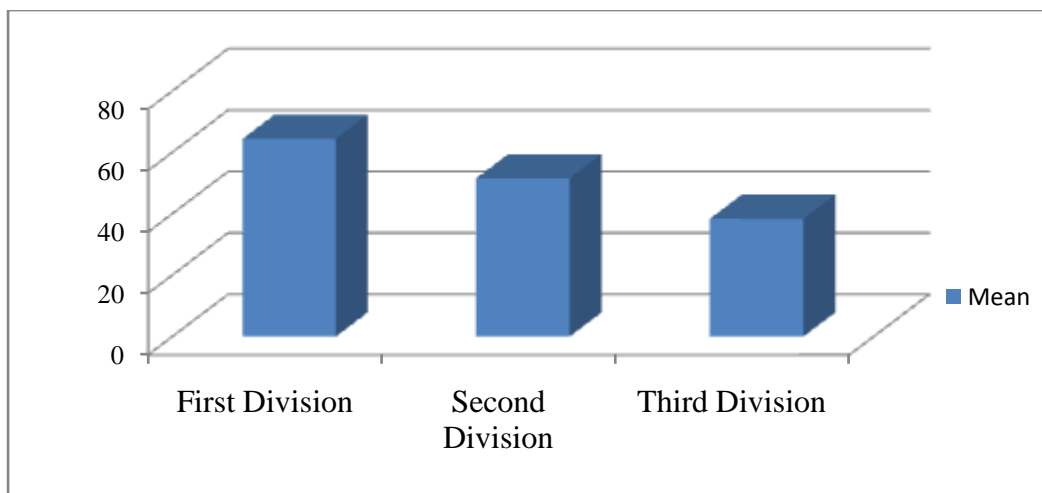


Figure 4.1: Indicating Mean differences in academic achievement of Karbi students in H.S.L.C. Examination

4.2 ANALYSIS OF DATA RELATED TO THE DIFFERENCE IN ACADEMIC ACHIEVEMENT BETWEEN KARBI BOYS AND GIRLS STUDENTS IN H.S.L.C. EXAMINATION.

Objective 2: To study the difference in academic achievement between Karbi boys and girls students in H.S.L.C. Examination.

Table 4.2 Percentage of academic achievement of Karbi boys and girls students in H.S.L.C. Examination.

Category	Boys		Girls		Total	
	N	%	N	%	N	%
First Division	23	15.33	9	6	32	10.67
Second Division	44	29.33	53	35.33	97	32.33
Third Division	83	55.33	88	58.66	171	57

The table 4.7 shows the percentage of academic achievements of Karbi boys and girls students in H.S.L.C. Examination. 15.33% Karbi boys and 6% Karbi girls are passed in first division, 29.33% Karbi boys and 35.33% girls are passed in second division. 55.33% Karbi boys and 58.66% girls are passed in third division. However, in case of totality 10.67% Karbi students are passed in first division, 32.33% Karbi students are passed in second division and 57% Karbi students are passed in third division. This shows that majority of Karbi boys and girls students are passed in third division and it reveals that academic achievements of Karbi boys are better than girls in H.S.L.C. Examination.

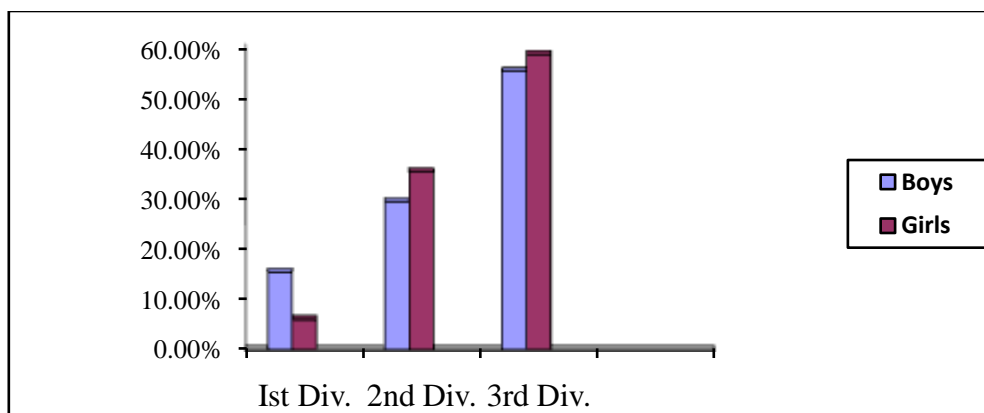


Figure: 4.2 showing the percentage scores of Karbi boys and girls students academic achievement in H.S.L.C. Examination.

Table 4.3 Percentage scores of Karbi boys and girls students academic achievement in the years 2012, 2013 and 2014.

Categories	2012				2013				2014			
	Boys		Girls		Boys		Girls		Boys		Girls	
	N	%	N	%	N	%	N	%	N	%	N	%
First Division	5	8.19	3	7.69	7	12.06	4	9.52	11	18.03	2	5.12
Second Division	14	22.95	11	28.20	18	31.03	20	47.61	22	36.06	17	43.58
Third Division	42	68.85	25	64.10	33	56.89	18	42.85	28	45.90	20	51.28

Table 4.3 shows the percentage scores of Karbi students academic achievement in H.S.L.C. Examination. In the year 2012, 8.19% Karbi boys and 7.69% girls are passed in first division, 22.95% Karbi boys and 28.20% girls are passed in second division, 68.85% Karbi boys and 64.10% girls are passed in third division.

In the year 2013, 12.06% Karbi boys and 9.52% girls are passed in first division, 31.03% Karbi boys and 47.61% girls are passed in second division, 56.89% Karbi boys and 42.85% girls are passed in third division.

Again, in the year 2014, 18.03% Karbi boys and 5.12% girls are passed in first division, 36.06% Karbi boys and 43.58% girls are passed in second division, 45.90% Karbi boys and 51.28% girls are passed in third division. This shows that academic achievements of Karbi students are better in the year 2014 than the years 2012 and 2013.

4.3 ANALYSIS OF DATA RELATED TO THE DIFFERENCE IN ACADEMIC ACHIEVEMENT BETWEEN URBAN AND RURAL KARBI STUDENTS IN H.S.L.C. EXAMINATION.

Objective 3: To study the difference in academic achievement between urban and rural Karbi students in H.S.L.C. Examination.

Table 4.4 Percentage of Karbi students academic achievement in H.S.L.C. Examination in Urban and Rural.

Categories	Urban						Rural					
	2012		2013		2014		2012		2013		2014	
	N	%	N	%	N	%	N	%	N	%	N	%
First Division	7	14	5	10	9	18	4	8	3	6	5	10
Second Division	16	32	20	40	20	40	15	30	19	38	21	42
Third Division	27	54	25	50	21	42	31	62	28	56	24	48

Table 4.4 shows the percentage scores of Karbi students academic achievements in H.S.L.C. Examination in urban and rural. In the year 2012, total 14% Karbi students are passed in first division, 32% Karbi students are passed in second division, 54% Karbi students are passed in third division. In the year 2013, 10% Karbi students are passed in first division, 40% Karbi students are passed in second division, 50% Karbi students are passed in third division. Again, in the year 2014, 18% Karbi students are passed in first division, 40% Karbi students are passed in second division and 42% Karbi students are passed in third division in urban areas.

Other hand in rural areas in the year 2012, 8% Karbi students are passed in first division, 30% Karbi students are passed in second division, 62% Karbi students are passed in third division. In the year 2013, 6% Karbi students are passed in first division, 38% Karbi students are passed in second division, 56% Karbi students are passed in third division. In the year 2014, 10% Karbi students are passed in first division, 42% Karbi students are passed in second division, 48% Karbi students are

passed in third division. This shows that academic achievements of Karbi students are better in urban than rural in H.S.L.C. Examination.

Table 4.5 Percentage of Karbi Boys and Girls students academic achievement in Urban and Rural.

Categories	Urban						Rural					
	Boys		Girls		Total		Boys		Girls		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
First Division	15	16.85	6	9.83	21	14	9	8.18	3	7.5	12	8
Second Division	31	34.83	25	40.98	56	37.33	39	35.45	16	40	55	36.67
Third Division	43	48.31	30	49.18	73	48.66	62	56.36	21	52.5	83	55.33
Total	89		61		150		110		40		150	

The table 4.5 shows the percentage scores of Karbi boys and girls students academic achievements in urban and rural. In urban, 16.85% Karbi boys and 9.83% Karbi girls are passed in first division, 34.83% Karbi boys and 40.98% Karbi girls are passed in second division, 48.31% Karbi boys and 49.18% Karbi girls are passed in third division.

Again in rural, 8.18% Karbi boys and 7.5% Karbi girls are passed in first division, 35.45% Karbi boys and 40% Karbi girls are passed in second division, 56.36% Karbi boys and 52.5% Karbi girls are passed in third division.

In case of totality, 14% Karbi students are passed in first division, 37.33% Karbi students are passed in second division and 48.66% Karbi students are passed in third division in urban. Again in rural, 8% Karbi students are passed in first division, 36.67% Karbi students are passed in second division and 55.33% Karbi students are passed in third division.

The 't' test had been calculated to find out the significant differences of Mean scores between urban and rural Karbi students in academic achievements. The

following are the academic achievements of Karbi students in H.S.L.C. Examination show the difference between urban and rural of the district.

Table 4.6 t-test of Academic Achievement scores between Urban and Rural Karbi students in H.S.L.C. Examination.

Categories	N	Mean	S.D.	t- value	df	Significant
Urban Karbi students academic achievement	150	47.61	10.78	2.63	298	S
Rural Karbi students academic achievement	150	42.87	9.25			

The table 4.6 shows difference between urban and rural Karbi students in academic achievement. The Mean score of Karbi students academic achievement in urban is 47.61 with Standard Deviation of 10.78 and the Mean score of Karbi students academic achievement in rural is 42.87 with Standard Deviation of 9.25. The ‘t’ value is 2.63 with df of 298 and its significant at .01 level. The result indicates that there is significant difference between urban and rural Karbi students in academic achievement.

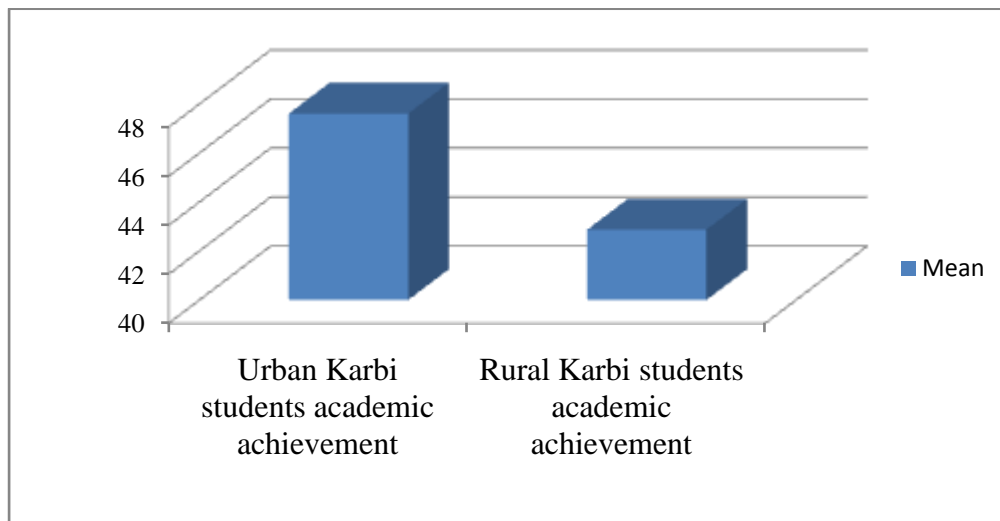


Figure 4.3: Indicating mean differences in academic achievement of Karbi students in urban and rural.

4.4 ANALYSIS OF DATA RELATED TO THE FAMILY SOCIO-ECONOMIC STATUS OF KARBI STUDENTS.

Objective 4: To find out the family socio-economic status of Karbi students.

The scores of socio-economic status scale which is administered on samples of 300 Karbi students according to their sex (boys and girls) geographical area (urban and rural) of the district. In order to examine the difference of socio-economic variables of Karbi students simple percentage scores has been employed.

Table 4.7 Showing the percentage scores of Karbi students' families demography and size.

Variable	Category	N	%
Family demography and size	Single Family	235	78.33
	Joint Family	65	21.67

Table 4.7 represent the percentage scores of the family's demography and size of the Karbi students. As mentioned in the above table that the percentage scores of single family is 78.33% and the percentage scores of joint family is 21.67%. On the basis of the percentage scores it can be said that Karbi students' families demography and size are different in urban and rural. This shows that majority of Karbi students belong to single families.

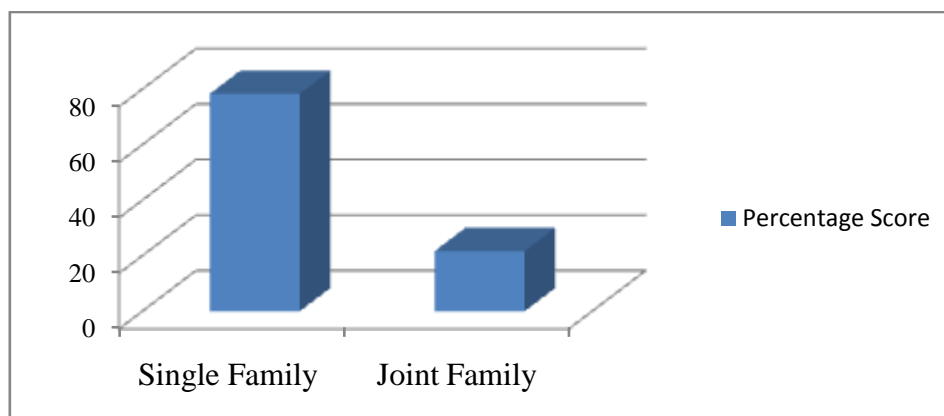


Figure 4.4: Showing the percentage scores of Karbi students' families demography and size

Table 4.8 Showing the percentage scores of parental education level of Karbi students.

Variable	Education Levels	Fathers		Mothers	
		N	%	N	%
Parental Education Level	P.G and Professional	10	3.33	5	1.67
	Graduation	30	10	10	3.33
	Intermediate	45	15	20	6.67
	High School	55	18.33	35	11.66
	Secondary	65	21.67	75	25
	Primary	75	25	90	30
	Never attend primary school	20	6.67	60	20

As shown in table 4.8 , 3.33% of fathers and 1.67 % of mothers are found educated up to P.G. and professional courses, 10% of fathers and 3.33% of mothers who are educated up to graduate level, 15% of father and 6.67% of mothers are educated up to intermediate level, 18.33% of fathers and 11.66% of mothers are educated up to high school level, 21.67% of fathers and 25% of mothers are educated up to secondary level and 25% of fathers and 30% of mothers are educated up to primary level. 6.67% of fathers and 20% of mothers are not enrolled in school for education. This shows that majority of parents are educated up to primary level of education.

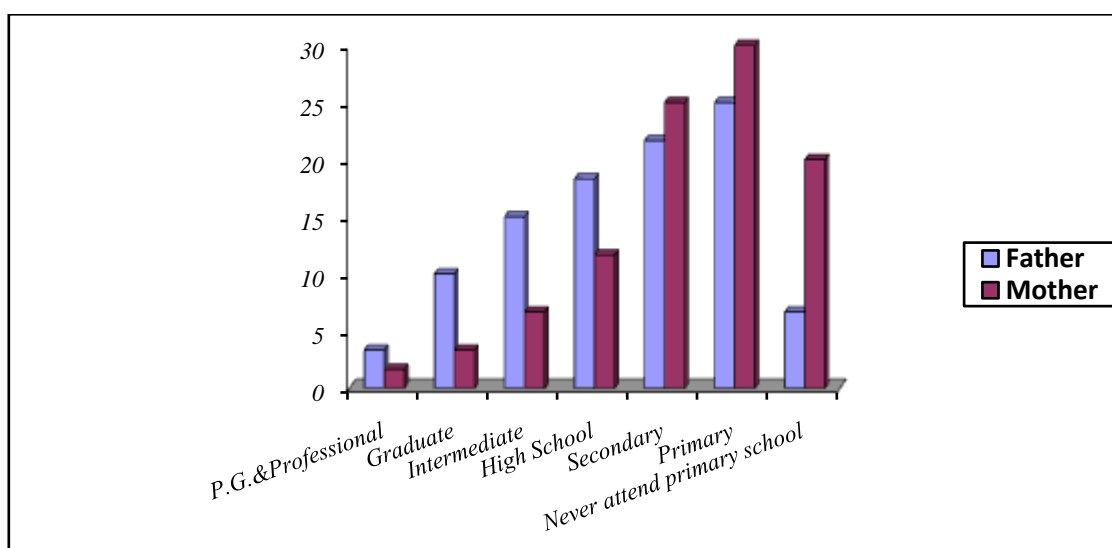


Figure 4.5 Indicating the fathers and mothers education levels of Karbi students.

Table 4.9 Showing the Percentage scores of families occupational levels of Karbi students.

Variable	Occupation level	N	%
Family Occupation level	Employment	50	16.67
	Business	75	25
	Agriculture	175	58.33

Table 4.9 shows the percentage scores of Karbi students' families occupations levels. The percentage scores of employee occupation is 16.67%, business occupation is 25% and agriculture occupation is 58.33%. This shows that majority of Karbi students belong to agricultural occupation families.

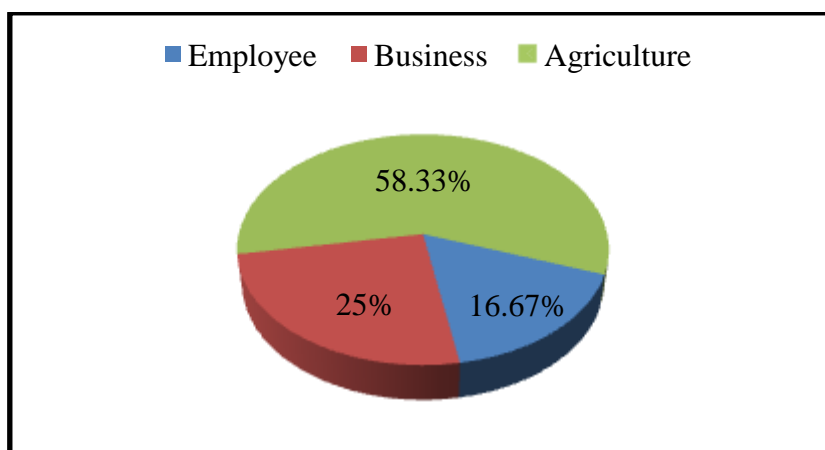


Figure 4.3 Indicating the families occupations levels of Karbi student's.

Table 4.10 Showing the Percentage scores of Karbi students' families monthly income levels.

Variable	Category	N	%
Family Monthly Income level	Rs.2500 - Rs.5000	117	39
	Rs.5001 - Rs.10000	92	30.67
	Rs.10001 - Rs.20000	45	15
	Rs.20001 - Rs.35000	38	12.67
	Rs.35001 - Rs.55000	6	2
	Rs.55001 - Rs.100000	2	.67
	Above Rs.100000	0	0

The table 4.10 shows percentage scores of Karbi students' families monthly income levels. It reveals that Karbi students families monthly income level between Rs.2500-Rs.5000 is 39%, monthly income level between Rs.5001- Rs.10000 is 30.67%, monthly income level between Rs.10001-Rs.20000 is 15%, monthly income level between Rs.20001-Rs.35000 is 12.67%, monthly income level between Rs.35001- Rs.55000 is 2%, monthly income level between Rs.55001 - Rs.100000 is .67% and no family monthly income level is found in Rs.100000 and above. The analysis of data (Table 4.10) revealed that majority of Karbi students families monthly income level is between Rs.2500 - Rs.5000. It indicates that economic conditions of Karbi students families are very poor and it can be said that due to poor economic conditions of the families many of the Karbi students have been deprived from school education in the district.

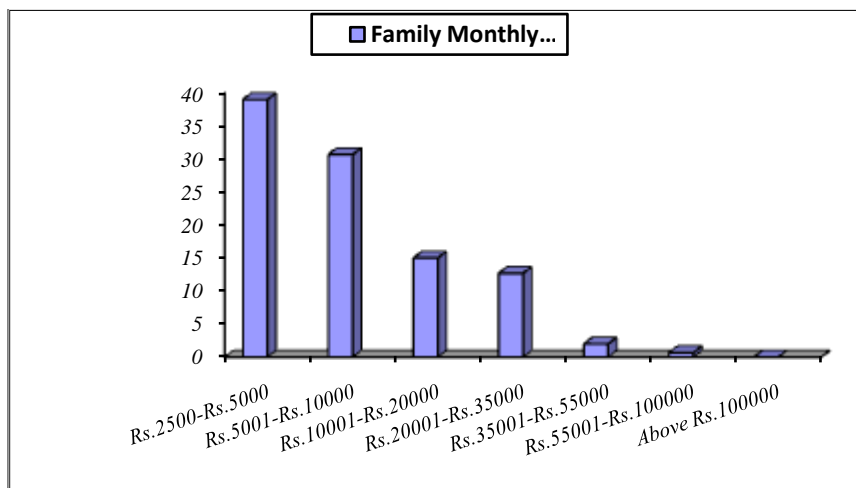


Figure 4.7 Indicating the families monthly income levels of Karbi students.

Table 4.11 Showing the percentage scores of socio - economic status of Karbi students in urban and rural.

Sl.No.	SES Level	N	%
1.	VHSES	18	6
2.	HSES	43	14.33
3.	ASES	87	29
4.	LSES	120	40
5.	VLSES	32	10.67

It is inferred from table 4.5 that 6% of Karbi students have Very High Socio-Economic Status (VHSES), 14.33% of Karbi students have High Socio-Economic Status (HSES), 29% of Karbi students have Average Socio-Economic Status (ASES), 40% of Karbi students have Low Socio-Economic Status (LSES) and 10.67% of Karbi students have Very Low Socio-Economic Status (VLSES). It is revealed that most of the Karbi students belong to Low Socio-Economic Status (LSES).

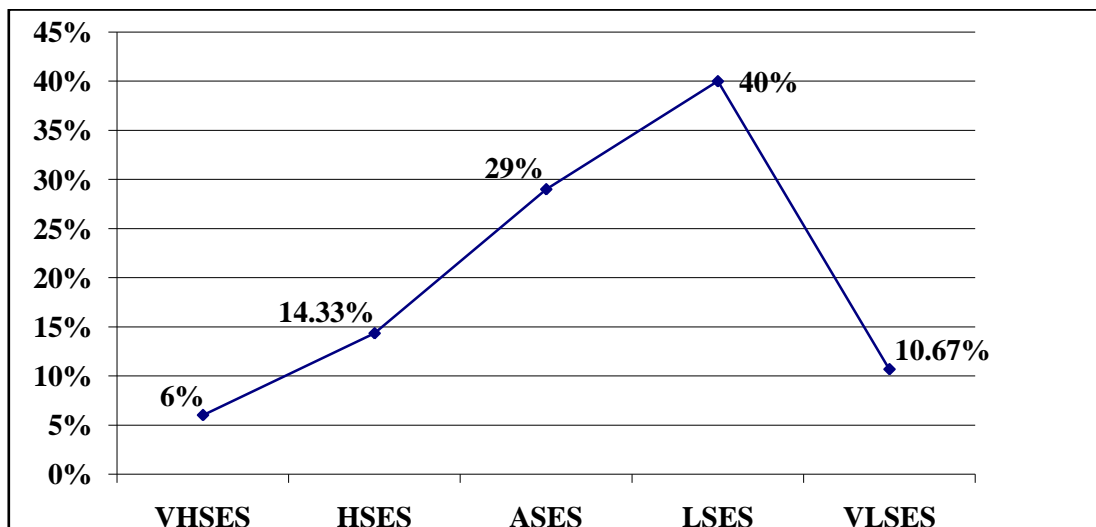


Figure 4.8 Indicating the levels of socio-economic status of Karbi students in urban and rural.

4.5 ANALYSIS OF DATA RELATED TO THE RELATIONSHIP BETWEEN THE FAMILY SOCIO-ECONOMIC STATUS AND ACADEMIC ACHIEVEMENT OF KARBI STUDENTS IN URBAN.

Objective 5: To find out the relationship between the family socio-economic status and academic achievement of Karbi students in urban.

An attempt had been made to analysis and interprets the relationship between family socio-economic status of Karbi students and their academic achievements in H.S.L.C. Examination in urban of the Karbi-Anglong district.

The Pearson’s Coefficient of Correlation method had been applied to find out the relationship between family socio-economic status of the Karbi students

and their academic achievements in H.S.L.C. Examination. Following are the socio-economic status to shows the relationship with Karbi students academic achievement in H.S.L.C. Examination.

Table 4.12 Showing correlation between the Socio-Economic Status and Academic Achievement of Karbi students in urban.

Category	Variables	N	Mean	S.D.	r
Urban	Socio-Economic Status	150	58.14	14.47	.633**
	Academic Achievement		44.56	12.98	

** Significant at .01 level

Table 4.12 shows the Coefficient of Correlation between socio-economic status and academic achievement of Karbi students in urban. Here, the total numbers of samples (N) are 150. The Mean score of socio-economic status of Karbi students is 58.14 with Standard Deviation of 14.47 and the Mean score of academic achievement of Karbi students is 44.56 and Standard Deviation of 12.98. The Coefficient of Correlation is .633, which is significant at .01 levels. This indicates that there is a highly significant correlation between socio-economic status and academic achievement of Karbi students in H.S.L.C. Examination.

4.6 ANALYSIS OF DATA RELATED TO THE RELATIONSHIP BETWEEN THE FAMILY SOCIO-ECONOMIC STATUS AND ACADEMIC ACHIEVEMENT OF KARBI STUDENTS IN RURAL.

Objective 6: To find out the relationship between the family socio-economic status and academic achievement of Karbi students in rural.

Table 4.13 Showing correlation between Socio-Economic Status and Academic Achievement of Karbi students in rural.

Category	Variables	N	Mean	S.D.	r
Rural	Socio-Economic Status	150	60.32	11.20	.685**
	Academic Achievement		44.21	9.87	

** Significant at .01 level

The table 4.13 reveals the Coefficient of Correlation between socio-economic status and academic achievement of Karbi students in rural. The Mean score of socio-economic status is 60.32 with Standard Deviation of 11.20. The Mean score of academic achievement of Karbi students is 44.21 with Standard Deviation of 9.87. The Coefficient of Correlation is .685, which is significant at .01 levels. This indicates that there is significant relationship between socio-economic status and academic achievement of Karbi students in rural of the district.

4.7 ANALYSIS OF DATA RELATED TO THE RELATIONSHIP BETWEEN THE FAMILY SOCIO-ECONOMIC STATUS AND ACADEMIC ACHIEVEMENT OF KARBI STUDENTS IN URBAN AND RURAL.

Objective 7: To find out the relationship between the socio-economic status and academic achievement of Karbi students in urban and rural.

Table 4.14 Showing correlation between socio-economic status and academic achievement of Karbi students in urban and rural.

Category	Variables	N	Mean	S.D.	r
Urban and Rural	Socio-Economic Status	300	69.30	16.24	.148**
	Academic Achievement		40.86	9.26	

** Significant at .01 level

The table 4.14 shows the Coefficient of Correlation between socio-economic status and academic achievement of Karbi students in urban and rural. The Mean score of socio-economic status is 69.30 with Standard Deviation of 16.24. The Mean score of Karbi students academic achievement is 40.86 with Standard Deviation of 9.26. The Coefficient of Correlation is .148, which is significant at .01 levels. From the result it is observed that there is highly significant correlation between socio-economic status and academic achievement of Karbi students in urban and rural of the district.

4.8 TESTING OF THE HYPOTHESES

It may be recalled here that the investigator stated six hypotheses regarding the present study. The following stands indicate the testing of selected hypotheses.

Hypothesis 1: There is no significant difference in academic achievement of Karbi students in H.S.L.C. Examination.

Referring to table 4.1 may concluded that obtained Mean and S.D. scores of Karbi students academic achievement were differences in the present study. Hence the hypothesis could not be accepted.

Hypothesis 2: There is no significance difference in academic achievement between Karbi boys and girls students in H.S.L.C. Examination.

Referring to tables 4.2 and 4.3 may concluded that obtained percentage scores of Karbi students academic achievement between boys and girls were differences. Therefore, the hypothesis could not be accepted.

Hypothesis 3: There is no significance difference in academic achievement between urban and rural Karbi students.

Referring to tables 4.4, 4.5, and 4.6 concluded that obtained percentage scores of Karbi students academic achievement in urban and rural were differences. The obtained 't' value also was significant at .01 levels. It means that academic achievements of Karbi students in urban and rural were differences. Hence the hypothesis could not be accepted.

Hypothesis 4: There is no significance difference of family socio-economic status of Karbi students.

Referring to the tables 4.7, 4.8, 4.9 4.10 and 4.11 may concluded that obtained percentage scores of family socio-economic status of Karbi students were differences and therefore the hypothesis could not be accepted.

Hypothesis 5: There is no significant relationship between family socio-economic status and academic achievement of Karbi students in urban.

Referring to the table 4.12 may concluded that the value of coefficient of correlation between family socio-economic status and academic achievement of Karbi students was .633** which was significant at .01 level. It means that family socio-economic status of Karbi students was different and family socio-economic status has played an important role in academic achievement of Karbi students in urban. Hence, the hypothesis could not be accepted.

Hypothesis 6: There is no significant relationship between the family socio-economic status and academic achievement of Karbi students in rural.

Referring the table 4.13 may concluded that the value of coefficient of correlation between family socio-economic status and academic achievement of Karbi students was .685** which was significant at .01 level. Family socio-economic status has played an important role in academic achievement of Karbi students in rural of the district. Hence, the hypothesis could not be accepted.

Hypothesis 7: There is no significant relationship between socio-economic status and academic achievement of Karbi students in urban and rural.

Referring the table 4.14 may concluded that the value of coefficient of correlation between family socio-economic status and academic achievement of Karbi students was .148 which was significant at .01 levels. It means that the family socio-economic status of Karbi students was different in urban and rural. The findings of the study revealed that family socio-economic status has played an important role in academic achievement of Karbi students in urban and rural of the district. Hence, the hypothesis could not be accepted.