CHAPTER-IV

ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction:

According to Marshall and Rossman (1999:150), data analysis is the process of organising, organising, and assigning relevance to the mass of obtained data. The analysis and interpretation of the data come after the data have been processed and examined over. It might be challenging to separate analysis from interpretation. By using interpretation, one can discover the real relevance of the research findings that are provided as well as the underlying generalisation that the data collected reveals. The analysis can be used to describe and summarise the data, find connections between variables, compare variables, find out how variables differ from one another, and forecast, regardless of whether the data is qualitative or quantitative. Data analysis is defined by renowned statistician John Turkey (1961) as the process of analysing data, techniques for interpreting the outcomes of such processes, methods for organising the collection of data to make it simpler, more precise, or more accurate, and all (mathematical) statistics tools and results that are applicable to data analysis. The process of analysing and interpreting data is the main topic of this chapter, and both descriptive and inferential statistics have been used to assess the data that have been collected.

4.2 Analysis and Interpretation of Objective 1.To study the academic achievement of secondary level school children of tea garden labourers of Assam.

The academic score of previous examination of the students i.e. for class IX, student's academic score of class VIII final examination; and for class X, academic score of class IX final examination are taken into consideration. However, for analysis of academic achievement of secondary level students are shown together in the following tables. The Academic Achievement of Secondary level school children in the study has been classified into three levels–High, Average and Low level of academic achievement. The ranges of academicscores set for the interpretation followed as per the SEBA (Secondary Education Board of Assam) categorization of the results. The interpretation of the Score are shown below-

Table 4.1: Ranges of academic score and interpretation

Academic Achievement Levels	Range	Percentage of the Range
High	360-600	60% & above
Average	270-359	50%-59%
Low	180-269	40%-49%

*** As per SEBA categorization of Secondary level Examination results.**

For High is 360-600 (60%-above), Average is 270-359 (50%59%), and Low is 180-269 (40%-49%).The details can be observed from the figure below.

Table 4.2: Level of academic achievement of secondary level school children of tea garden labourer's of Assam

Academic Achievement Level	Range	Total no of student	%
High	360-600	27	2.7%
Average	270-359	151	15.1%
Low	180-269	822	82.2 %
		1000	100%

The following tables' shows the range of marks (in percentage) obtained by the class IX and X students of Secondary Board of School Education (SEBA) Assam, for the academic session 2019-20.

Figure 4.1 Graphical representation of Level of academic achievement of secondary level school children of tea garden labourers of Assam
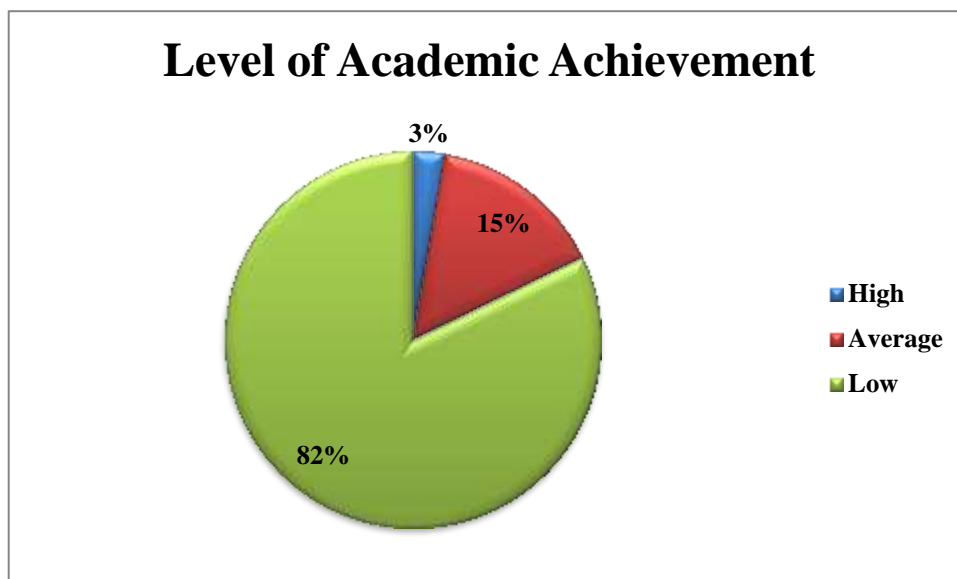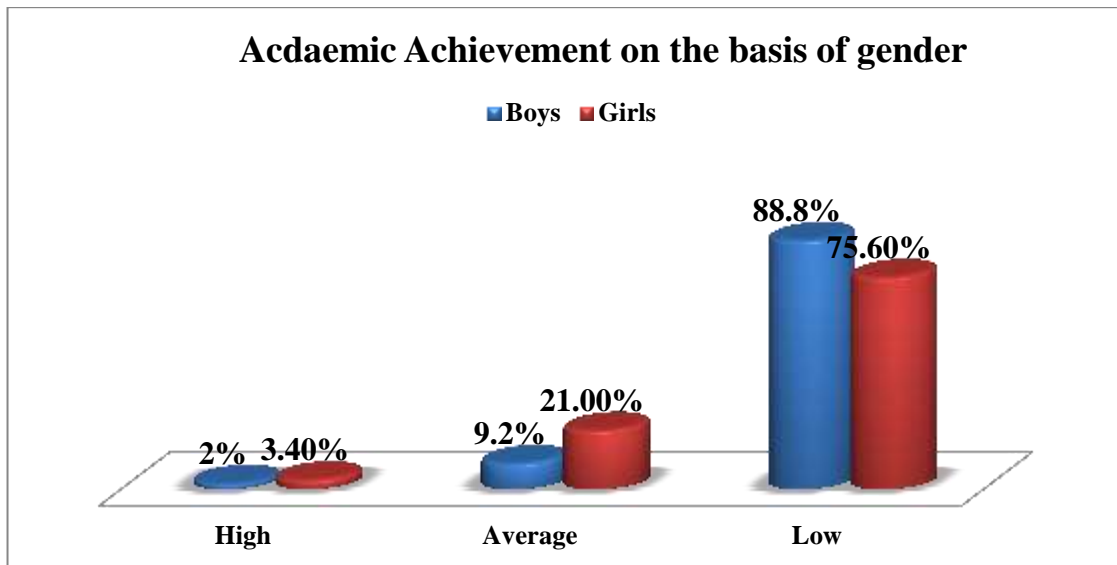

Interpretation: From the **table 4.2 and figure 4.1** showed the percentage level of academic achievement of the secondary level school children of tea garden labourers. It has been found that out of the total sample of 1000, only 3% are found to have high level of academic achievement, 15% of them are found to have average level of academic achievement and 82% of these children have low level of academic achievement. Thus from the table it has been interpreted that the academic achievement of the children of tea garden labourers is low.

Table 4.3 Level of academic achievement of secondary level school children of tea garden labourers on the basis of gender

Academic Achievement Level	Range	Gender Boys	%	Gender Girls	%
High	360-600	10	2%	17	3.4%
Average	270-359	46	9.2%	105	21%
Low	180-269	444	88.8%	378	75.6%
	Total	500	100%	500	100%

Figure 4.2: Graphical representation showing the Academic Achievement of secondary level school children of tea garden labourers on the basis of gender
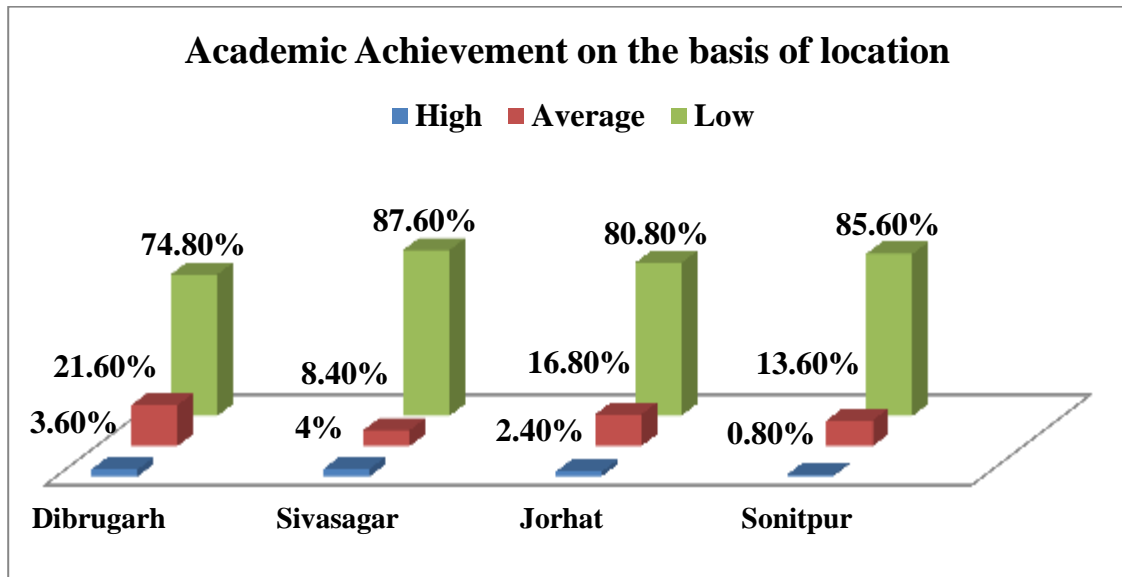

Interpretation: From the **table 4.3 and figure 4.2** it has been found that among the boys and girls of tea garden labourers in all the four districts, percentage of secondary level school boys are in low level of academic achievement is 88.8% and the percentage of girls is 75.6% respectively are in low level of academic achievement. The result indicated that low level of academic achievement percentage of boys is higher in comparison to the girls of all the four districts. In average level of academic achievement 9.2% of boys are found, whereas among girls it is found 21% respectively which is again in favour of girls. Lastly, in high level of academic achievement only 2% of boys are having high level of academic achievement, on the same hand only 3.4% of girls are having high level of academic achievement. This indicated that girls have higher percentage than boys in high level of academic achievement. Thus, the result shows that among the secondary level school boys and girls, girls are better academic achievement than boys. Thus the result indicated that the majority of the boys and girls fall in low level academic achievement.

Table 4.4: Table showing the level of academic achievement of secondary level school children of tea garden labourers on the basis of location

Academic Achievement Level	Districts								
	Range	Dibrugarh		Sivasagar		Jorhat		Sonitpur	
High	360-600	9	3.6%	10	4%	6	2.4%	2	0.8%
Average	270-359	54	21.6%	21	8.4%	42	16.8%	34	13.6%
Low	180-269	187	74.8%	219	87.6%	202	80.8%	214	85.6%
	Total	250	100%	250	100%	250	100%	250	100%

Figure 4.3: Graphical representation showing the level of academic achievement of secondary level school children of tea garden labourers on the basis of location

Interpretation: From the **table 4.4 and figure 4.3** it is observed that the percentage of secondary level school children having low level of academic achievement are higher in Sivasagar district with 87.6% level of academic achievement followed by Sonitpur district with 85.6% of low level of academic achievement, Jorhat district with 80.8% of

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low level of academic achievement and lastly Dibrugarh district with 74.8% of low level of academic achievement. For average level of academic achievement again Sivasagar district have only 8.4% of average level of academic achievement followed by Sonitpur district with 13.6% of average level of academic achievement, Jorhat district with 16.8% of average level of academic achievement and Dibrugarh district with 21.6% of average level of academic achievement. In high level of academic achievement the percentage of Sonitpur district's secondary level school children is only 0.8% level of academic achievement followed by Jorhat district with 2.4%, Dibrugarh district having 3.6% level of academic achievement and in Sivasagar district 4% level of academic achievement.

Thus the result indicates that the percentage of secondary level school children of tea garden labourers from Sivasagar having low level of academic achievement is more than other three districts.And the overall level of academic achievement is found to be lower in all the districts. So it can be said secondary level school children of tea garden labourers in each district have an unsatisfactory level of academic achievement.

$H_{01:}$ **There is no significant difference between secondary level school boys and girls of tea garden labourers with regards to academic achievement**

Table 4.5: Mean score difference between secondary level school boys and girls of tea garden labourers of Assam with regards to academic achievement.

Academic Achievement	N	Mean	SD	df	t	Sig.	Interpretation
Boys	500	211.28	44.403	998	6.93	0.001	Significant
Girls	500	232.6	52.521				

Interpretation: From the above **table 4.5,**it is observed that with regards to academic achievement secondary level school boys has mean score of 191.04 with SD 30.57 and secondary level school girls has mean score 204.97 with SD 33.67. The higher mean score of girls implies that the respondents obtained higher score in the academic achievement level than the boys. Again here the t value is found to be 6.93 with p value (.001) which is less than .05 level. As the t test is conducted at the 5% level of significance and the p value derived is less than 0.05, hence the null hypothesis "there is no significant difference between secondary level school boys and girls of tea garden

labourers of Assam with regards to academic achievement"is rejected.And it indicates there is significant difference between secondary level boys and girls of tea garden labourers with regards to academic achievement.

Table 4.6: Mean score difference between secondary level school boys and girls of tea garden labourers with regards to academic achievement on the basis of location.

Districts	Gender	N	Mean	Sd	df	t	Sig.	Interpretation
Dibrugarh	Boys	125	220.70	58.72	248	2.87	0.004	Significant
	Girls	125	239	46.23				
Sivasagar	Boys	125	199.30	32.05	248	4.44	0.001	Significant
	Girls	125	226.44	60.33				
Jorhat	Boys	125	214.78	46.95	248	2.68	0.008	Significant
	Girls	125	231.84	53.65				
Sonitpur	Boys	125	210.36	31.75	248	4.22	0.001	Significant
	Girls	125	232.22	48.51				

Interpretation: The above **table 4.6** shows the significant difference of mean score between the secondary level school boys and girls of tea garden labourers in the four districts with regards to academic achievement.It is evident from the results that among the four districts, in the Dibrugarh district mean score values of boys are found to be 220 with SD 58.72and the mean score of girls are found to be 239 with SD 46.23 respectively. Here t-value is found to be 2.87 with p value (.004) which is less than .05level(p<.05). As the t test is conducted at the 5 % level of significance and the p value derived is less than 0.05, it is proved that "there is significant difference between secondary level school boys and girls of Dibrugarh district with regards to academic achievement".

In Sivasagar district, the mean score values of boys are found to be 199.30with SD 32.05 and the mean score of girls are found be 226.4with SD 60.33 respectively. Here the t-value is 4.44with p value (.001) which is less than .05level(p<.05). Thus it is proved that "there is significant difference between secondary level school boys and girls ofSivasagar district with regards to academic achievement".

In Jorhat district, the mean score values of boys are found to be 214 with SD 46.95and the mean score values of girls are found to be 231 with SD 53.65respectively. Here the t-value is 2.68with p value (.008)which is less than .05 level (p<.05). Thus it is proved that there issignificant difference between secondary level school boys and girls of Jorhat district with regards to academic achievement.

Lastly, in Sonitpur district, the mean values ofboys are found to be 2012.36 with SD 31.75and the mean value score of girls are found to be232with SD 48.51 respectively. Here the t-value is 4.22 with p value .001 which is less than .05 level (p<.05). Thus it is proved that there is significant difference between secondary level school boys and girls of Sonitpur district with regards to academic achievement.

Hence it can be concluded that among the four districts in Dibrugarh, Sivasagar,Jorhat and Sonitpur district there is a significant difference between secondary level school boys and girls with regards to academic achievement. The mean score among the boys and girls in all four districts indicates that girls are academically stronger than boys.

$H_{02:}$ **There is no significant difference between secondary level school children of tea garden labourers among the four districts with regards to academic achievement.**

Table 4.7: Descriptive of mean scores between secondary level school children of tea garden labourers among the four districts with regards to academic achievement.

Descriptive				
	Districts	**Secondary level students**	**Mean**	**SD**
Academic Achievement	**Dibrugarh**	250	230.30	53.60
	Sivasagar	250	212.87	50.08
	Jorhat	250	223.31	51.03
	Sonitpur	250	221.29	42.35
	Total	1000	221.94	49.76

Figure 4.4: Representing descriptive of mean score between the secondary level school children of tea garden labourers among the four districts with regards to academic achievement.

Academic achievement mean score of children among the four districts

Dibrugarh	Sivasagar	Jorhat	Sonitpur
230.3	212.87	223.31	221.29
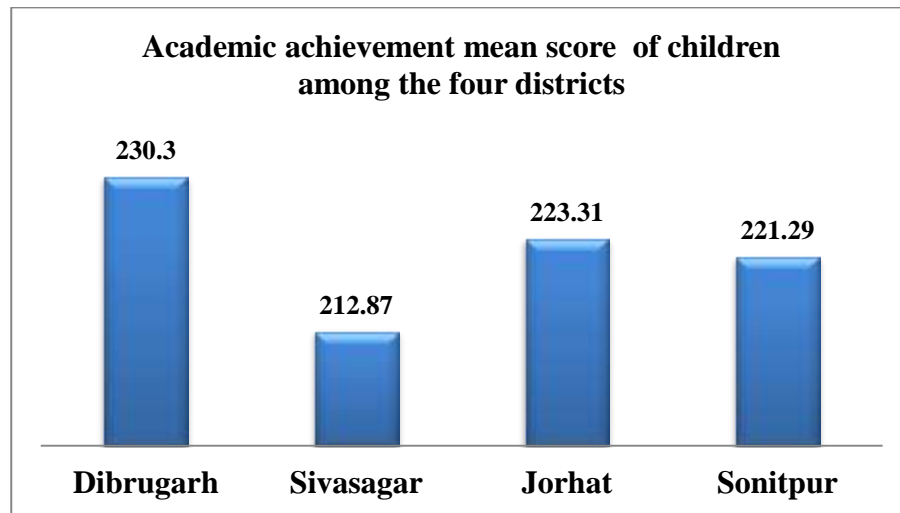
Interpretation: In the above **table 4.7 and figure 4.4**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the dependent variable is the academic achievement. Through the mean scores derived it can be observed that the academic achievement score of the students is highest in Dibrugarh and lowest in Sivasagar and there is a very minimal difference between the academic achievement score of Jorhat and Sonitpur.

Table 4.7.1: ANOVA results of the secondary level school children of tea garden labourers among the four districts with regards to academic achievement.

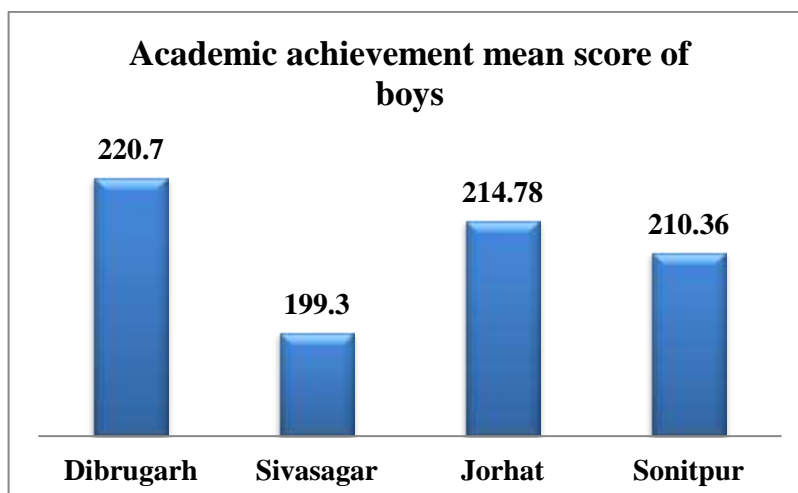| ANOVA							
Academic Achievement							
Variable		**Sum of Square**	**Mean Square**	**df**	**F**	**Sig.**	**Interpretation**
Academic Achievement	**Between Groups**	38620.524	12873.508	3	5.27	0.001	**Significant**
	Within Groups	2435342.112	2445.123	996			
	Total	2473962.636		999			

The result of the ANOVA test is shown in the above **table 4.7.1.** The ANOVA results show that the sum of squares between groups and within groups are 38620.524 and 2435342.112 respectively and mean squares are 12873.508 and 2445.123 respectively. The F- ratio value is 5.27 with p value (.001) found to be less than 0.05 level which indicates that the null hypothesis, "there is no significant difference between secondary level school children of tea garden labourers among the four districts with regards to academic achievement" is rejected.

$H_{03:}$**There is no significant difference between the secondary level school boys of tea garden labourers among the four districts with regards to academic achievement.**

Table 4.8: Descriptive of mean score between secondary level school boys of tea garden labourers among the four districts with regards to academic achievement.

Descriptive				
Academic Achievement	Districts	Boys	Mean	SD
	Dibrugarh	125	220.70	58.72
	Sivasagar	125	199.30	32.04
	Jorhat	125	214.78	46.94
	Sonitpur	125	210.36	31.74
	Total	500	211.28	44.40

Figure 4.5: Representing mean score of secondary level school boys of tea garden labourers among the four districts with regards to academic achievement.

Academic achievement mean score of boys

220.7 — Dibrugarh
199.3 — Sivasagar
214.78 — Jorhat
210.36 — Sonitpur

In the above table 4.8 and figure 4.5, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the dependent variable is the academic achievement. Through the mean scores derived it can be observed that the academic achievement mean score is highest in boys of Dibrugarh and Jorhat followed by Sonitpur. Lastly in Sivasagar the mean scores of boys is found to be lowest than the other districts. Overall, the mean score are found be lower among boys in Sivasagar and thus there lies difference in the boys of every district.

Table 4.8.1: ANOVA results of the secondary level school boys of tea garden labourers among the four districts with regards to academic achievement.

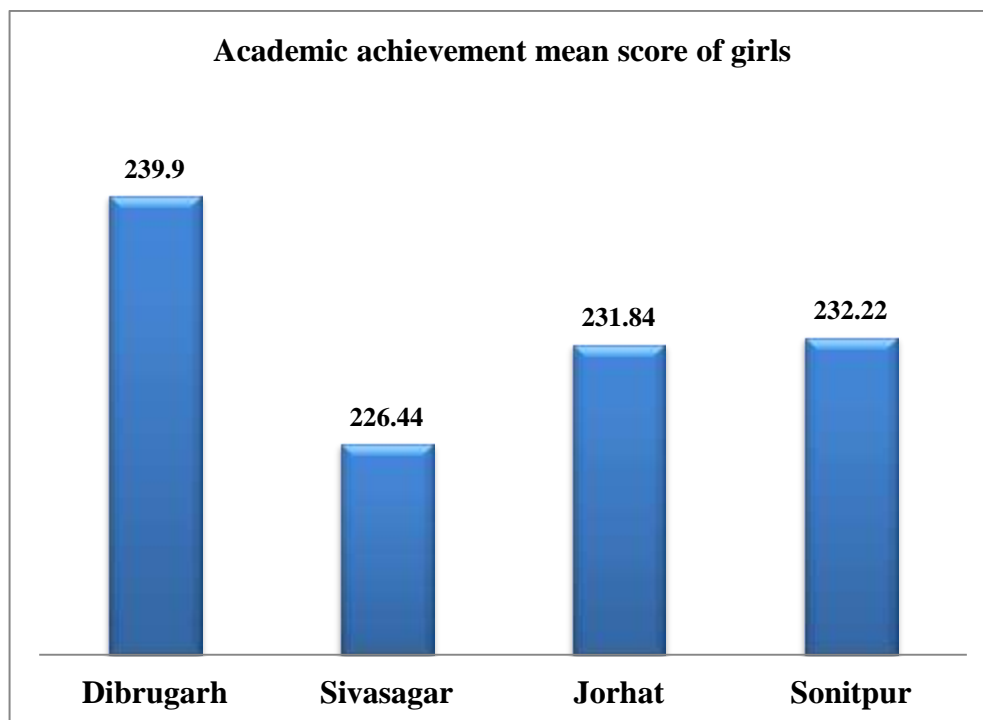| ANOVA							
Variable		**Sum of Square**	**Mean Square**	**df**	**F**	**Sig.**	**Interpretation**
Academic Achievement of boys	**Between Groups**	30668.214	10222.738	3	5.320	0.001	**Significant**
	Within Groups	953175.024	1921.724	496			
	Total	983843.238		499			

Interpretation: The result of the ANOVA test is shown in the above **table 4.8.1**,the ANOVA results show that the sum of squares between groups and within groups are 30668.214 and 953175.024 respectively and mean squares are 10222.738 and 1921.724 respectively. The F- ratio value is5.320 with p value (.001) found to be less than 0.05 level which indicates that the null hypothesis, "there is no significant difference between secondary level school boys of tea garden labourers among the four districts with regards to academic achievement" is rejected.

H_{04}:**There is no significant difference between secondary level school girls of tea garden labourers among the four districts with regards to academic achievement.**

Table 4.9: Descriptive of mean scores between the secondary level school girls of tea garden labourers among the four districts with regards to academic achievement

Descriptive				
	Districts	**Girls**	**Mean**	**SD**
Academic Achievement	Dibrugarh	125	239.90	46.226
	Sivasagar	125	226.44	60.327
	Jorhat	125	231.84	53.654
	Sonitpur	125	232.22	48.508
	Total	500	232.60	52.521

Figure 4.6: Representing mean score of secondary level school boys of tea garden labourers among the four districts with regards to academic achievement.

Interpretation: In the above **table 4.9 and figure 4.6**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the dependent variable is the academic achievement. Through the mean scores derived it can be observed that the academic achievement score is highest among girls of Dibrugarh followed by girls of sonitpur district. In Jorhat district again the mean scores derived is found better among the girls with regards to their academic

achievement. Lastly in Sivasagar from the mean scores derived it can be observed that the academic achievement mean score of the boys is lower than the other three districts. Thus it indicated that the mean score is found be highest in Dibrugarh among the girls and lowest among girls in Sivasagar among all the four selected districts and there lies difference in the girls of every district.

Table 4.9.1: ANOVA results of the secondary level school girls of tea garden labourers among the four districts with regards to academic achievement.

| ANOVA							
Variable		**Sum of Square**	**Mean Square**	**df**	**F**	**Sig.**	**Interpretation**
Academic Achievement of girls	**Between Groups**	11501.622	3833.874	3	1.393	0.244	**Significant**
	Within Groups	1364982.176	2751.980	496			
	Total	1376483.798		499			

Interpretation:In **table 4.9.1**, the ANOVA results show that the sums of squares between groups and within groups are 11501.622 and 1364982.176 respectively and the mean squares are 3833.874 and 2751.980. Here the F value ratio is 1.393 with p value (.244) found to be greater than 0.05 level of significance. So the null hypothesis "there is no significant difference between secondary level school girls of tea garden labourers among the four districts with regards to academic achievement" is accepted and thus proved there is no significant difference between secondary level school girlsamong the four districts in regards to academic achievement.

4.3.Analysis and Interpretation of Objective 2: To study the Parental Involvement as a factor influencing the Academic Achievement of secondary level school children of tea garden labourers of Assam.

Table 4.10: Level of parental involvement among the secondary level school children of tea garden labourers of Assam.

Range of Z Scores	Range of Raw score	Level of Parental Involvement	Frequency	Percent
2.01 and above	121 & Above	Extremely High	56	5.6%
1.26 To 2.00	109 -120	High	62	6.2%
0.51 To 1.25	97-108	Above average	134	13.4%
-0.50 To 0.50	82-96	Average	302	30.2%
-1.25 to '-0.51	70-81	Below Average	150	15%
- 2.00 to '- 1.26	58-69	Low	153	15.3%
-2.01 and below	57 and Below	Extremely Low	143	14.3%
	Total		1000	100%

Figure 4.7: Graphical representation showing the level of parental involvement of the secondary level school children of tea garden labourer.
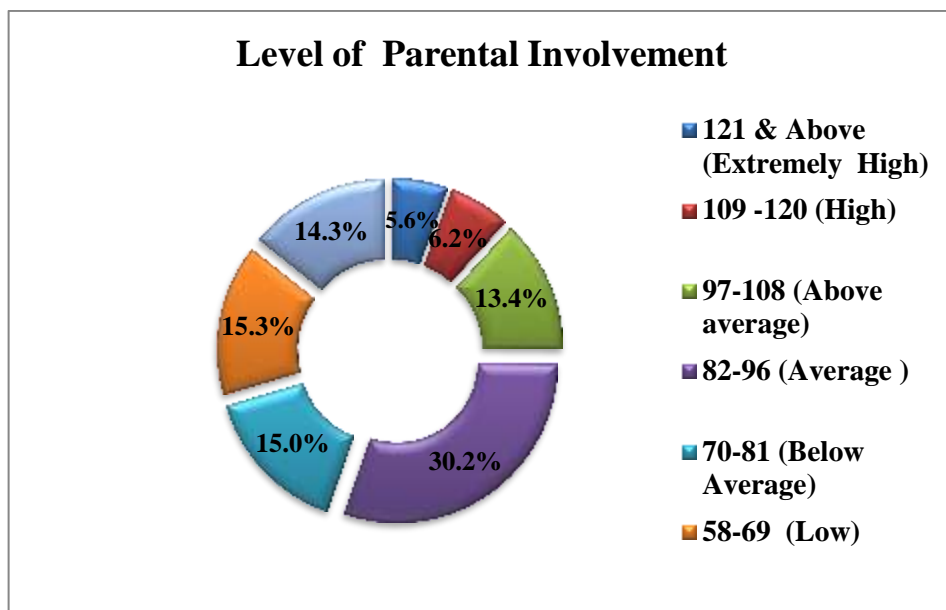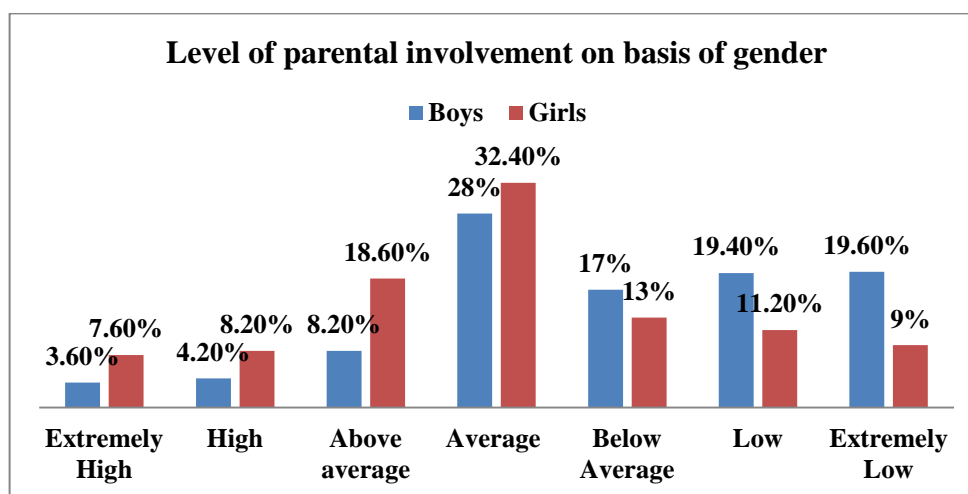

Interpretation: The above **table 4.10 and figure 4.7**, shows the parental involvement of the secondary level school children of tea garden labourers of Assam in seven different categories i.e.; extremely high, high,above average ,average ,below average, low, extremely low.

From the table, it has been observed that 5.6% of secondary level school children arefound to possess extremely high category of parental involvement level, 6.2% are found to have high parental involvement level, 13.4% are found to possess above average level of parental involvement, 30.2% are having average level of parental involvement and 15.0% have below average level of parental involvement. 15.3% fall under low level of parental involvement and the remaining 14.3% falls under the extremely low level of parental involvement. It is evident from the data that most of the students have averagelevel of parental involvement indicating a satisfactory state of parental involvement.

Table 4.11: Level of Parental Involvement among the secondary level school children of tea garden labourers of Assam on the basis of gender.

Range of Z Scores	Range of raw score	Levels of Parental Involvement	Boys		Girls	
2.01 and above	121 & Above	Extremely High	18	3.6%	38	7.6%
1.26 To 2.00	109 -120	High	21	4.2%	41	8.2%
0.51 To 1.25	97-108	Above average	41	8.2%	93	18.6%
-0.50 To 0.50	82-96	Average	140	28%	162	32.4%
-1.25 to '-0.51	70-81	Below Average	85	17%	65	13%
- 2.00 to '-1.26	58-69	Low	97	19.4%	56	11.2%
-2.01 and below	57 and Below	Extremely Low	98	19.6%	45	9%
	Total		500	100%	500	100%

Figure 4.8: Graphical representation showing the level of parental involvement among the secondary level school children of tea garden labourers of Assam on the basis of gender
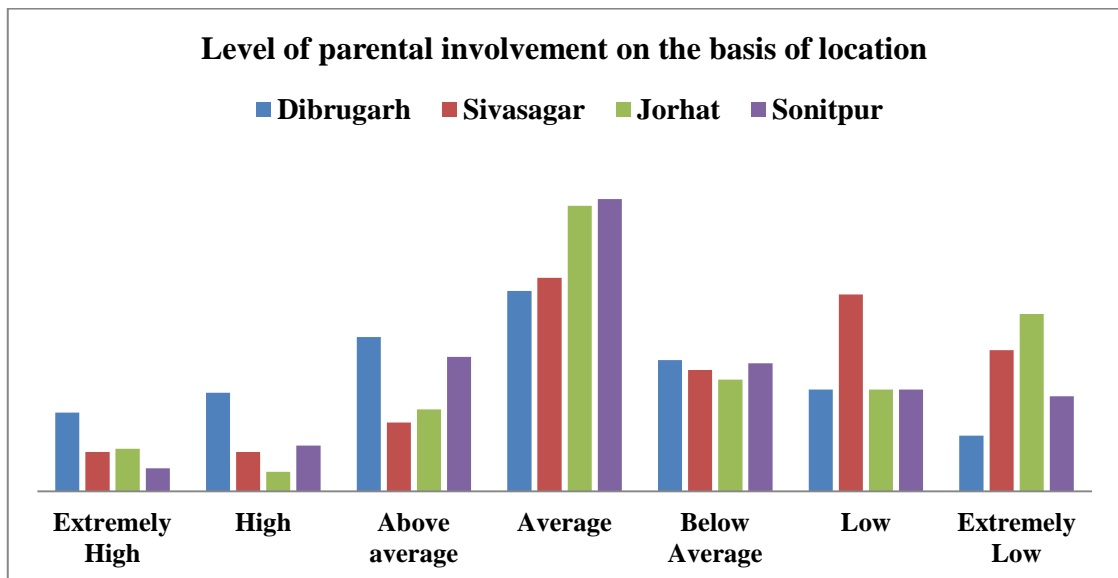

Interpretation: Table 4.11 and Figure 4.8shows the level of parental involvement of the secondary level school children of tea garden labourers of Assam on the basis of gender. From the table, it has been observed that among the boys 3.6% are having extremely high level of parental involvement, 4.2% of boys can be categorized under high level of parental involvement, 8.2% of boys are found to possess above average level of parental involvement, 28% of boys are having average level of parental involvement and 17% of the boys belonged to below average level of parental involvement. The remaining 17.9% belonged to low level of parental involvement category and 19.6 % of boys have very low category of parental involvement.

From the table, it has been observed that among the girls, 7.6% of girls belonged to the extremely high category of parental involvement, 8.2% of girls are found to possess high level of parental involvement, 18.6% of girls are found to possess above average level of parental involvement, 32.4% of girls are having average level of parental involvement, 13% among the girls are found in below average level of parental involvement.The remaining 11.2% belonged to the low category and 9% of the girls belonged to very low level of parental involvement.

Table 4.12: Level of Parental Involvement of secondary level school children of tea garden labourers on the basis of location

Range of Z Scores	Range of raw scores	Level of parental involvement	District							
			Dibrugarh		Sivasagar		Jorhat		Sonitpur	
2.01 and above	121 & Above	Extremely High	24	9.6%	12	4.8%	13	5.2%	7	2.8%
1.26 To 2.00	109 -120	High	30	12%	12	4.8%	6	2.4%	14	5.6%
0.51 To 1.25	97-108	Above average	47	18.8%	21	8.4%	25	10%	41	16.4%
-0.50 To 0.50	82-96	Average	61	24.4%	65	26%	87	34.8%	89	35.6%
-1.25 to '-0.51	70-81	Below Average	40	16%	37	14.8%	34	13.6%	39	15.6%
- 2.00 to '-1.26	58-69	Low	31	12.4%	60	24%	31	12.4%	31	12.4%
-2.01 and below	57 and Below	Extremely Low	17	6.8%	43	17.2%	54	21.6%	29	11.6%
	Total		250	100%	250	100%	250	100%	250	100%

Figure 4.9: Graphical representation showing the level of parental involvement of the secondary level school children of the tea garden labourers of Assam on the basis of location:

Interpretation: Table 4.12 and Fig 4.9 shows the level of parental involvement of the secondary level school children of tea garden labourers of Assam on the basis of the location selected.

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From the table, it has been observed that in the extremely high category, among the four districts 9.6% of the children from Dibrugarh have extremely high level of parental involvement, 4.8% of children are found from the Sivasagar district, 5.2% are from jorhat and remaining 2.8% are from Sonitpur.

In the high level category, among the secondary level school children of tea garden labourers 12% of children are from Dibrugarh have high level parental involvement , 4.8% are found from Sivasagar district, 2.4% are found from Jorhat district and remaining 5.6% are from Sonitpur district.

In above average category, 18.8% of secondary level school children of tea garden labourers are from Dibrugarh, 8.4% are from Sivasagar, 10% are from Jorhat and remaining 16.4% are from Sonitpur.

In the average category, 24.4% of secondary level school children are found in the Dibrugarh district, 26% belonged from Sivasagar, 34.8% are from Jorhat and remaining 35.6% are found to be from Sonitpur.

From the below average category, in Dibrugarh there are 16% of secondary level school children of tea garden labourer, 14.8% of children are from Sivasagar district and from Jorhat district 13.6% of children are found. Remaining 15.6% are found to be from Sonitpur district.

In the low level category among the four district Dibrugarh,Jorhat and Sonitpur have 12.4% of the secondary level school children of tea garden labourers and remaining 24% of children are from Sivasagar district.

 Lastly, in the very low category, 6.8% of the secondary level school children belonged from Dibrugarh, 17.2% of children are from Sivasagar district, 21.6% of the children are from Jorhat district. Remaining 11.6% are found to be from Sonitpur district.

H$_{05}$:There is no significant difference between secondary level school boys and girls of tea garden labourers with regards to parental involvement.

Table 4.13: Mean score difference of the secondary level school boys and girls of tea garden labourers with regards to parental involvement.

Parental Involvement	N	Mean	SD	df	Sig.	Interpretation
Boys	500	78.1060	20.89	998	.000	Significant
Girls	500	88.5040	21.04			

Interpretation : From the **table 4.13** it can be seen that, mean score of secondary level school boys is found to be 78.10 with SD 20.89 and secondary level school girls is found to be 88.50 with SD21.04 respectively. It is noticed that the mean score of the girls is higher in comparison with the boys in their parental involvement. Again here the t value is found to be 7.84 with p value (.000) which is less than .05 level (p>0.05). Hence the null hypothesis"there is no significant difference between secondary level school boys and girls children of tea garden labourers with regards to parental involvement"is rejected. And it indicates there is significant difference between boys and girls of tea garden labourers with respect to parental involvement.

Table 4.14: Mean score difference of secondary level school boys and girls of tea garden labourer with regards to parental involvement on the basis of location

Parental Involvement		N	Mean	SD	df	t	Sig.	Interpretation
Dibrugarh	Boys	125	85.82	23.29	248			Significant
	Girls	125	95.59	18.02		3.707	.000	
Sivasagar	Boys	125	72.65	18.76	248	4.488	.000	Significant
	Girls	125	84.54	22.90				
Jorhat	Boys	125	75.70	22.21	248		.002	Significant
	Girls	125	84.19	21.65		3.059		
Sonitpur	Boys	125	78.24	16.50	248	5.022	.000	Significant
	Girls	125	89.68	19.41				

Interpretation: The above **table 4.14** shows the significant difference of mean score among the secondary level school boys and girls of tea garden labourers in the four districts with respect to parental involvement.

It is evident from the results in table-5 that among the four districts, in the Dibrugarh district mean score values of boys is found to be 85.82 with SD 23.29 and the mean score of girls is found to be 95.82 with SD 18.02 respectively. Here t-value is found to be 3.707with p value (.000) which is less than .05 level(p<.05). Thus it is proved that

there significant difference between secondary level school boys and girls of Dibrugarh district with regards to parental involvement.

In Sivasagar district, the mean score values of boys is found to be 72.65 with SD 18.76 and the mean score of girls is found be 84.54; with SD 22.9 respectively. Here the t-value is 4.488 with p value (.000) which is less than .05 level (p<.05). Thus it is proved that there is significant difference between secondary level school boys and girls of Sivasagar district with regards to parental involvement.

In Jorhat district, the mean score values of boys is found to be 75.70with SD 22.21and the mean score values of girls is found to be 84.19 with 21.65 respectively. Here the t-value is3.059 with p value .002 which is less than .05 level (p<.05). Thus it is proved that there is significant difference between secondary level school boys and girls of Jorhat district with regards to parental involvement.

In Sonitpur district, the mean values of boys is found to be 78.24 with SD 16.50 and the mean value score 89.68 with SD 19.41 respectively. Here the t-value is 5.022 with p value .000 which is less than .05 level (p<.05). Thus it is proved that there is significant difference between boys and girls of Sonitpur district with regards to parental involvement.

Hence it can be interpreted that among the four districts there is significant difference betweenboys and girls of all four districts in respect to parental involvement. The p values in all the four districts are lesser than .05 level and this clearly indicates that there is difference in level of parental involvement among boys and girls in all the four districts.

H_{06}: **There is no significant difference between secondary level school children of tea garden labourers among the four districts with regards to parental involvement**

Table 4.15: Descriptive of mean values of secondary level school children of tea garden labourers among the four districtswith regards to parental involvement

Descriptive				
Parental Involvement	Districts	N	Mean	SD
	Dibrugarh	250	90.70	21.35
	Sivasagar	250	78.60	21.72
	Jorhat	250	79.94	22.30
	Sonitpur	250	83.96	18.87
	Total	1000	83.30	21.59

Figure 4.10 Representing the of mean score values of secondary level school children of tea garden labourers among the four districts with regards to parental involvement
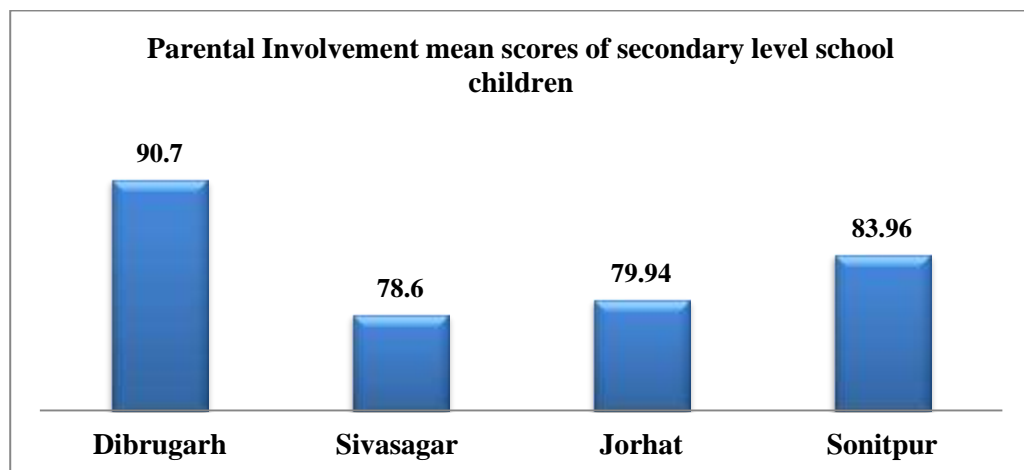
In the above **table 4.15 and figure 4.10**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the dependent variable is the parental involvement. Through the mean scores derived it can be observed that the parental involvement score of the students is highest in Dibrugarh and Sonitpur. There is a very minimal difference between the parental involvement score of Jorhat and Sivasagar.

Table 4.15.1: ANOVA results of secondary level school children of tea garden labourers among the four districts with regards to parental involvement .

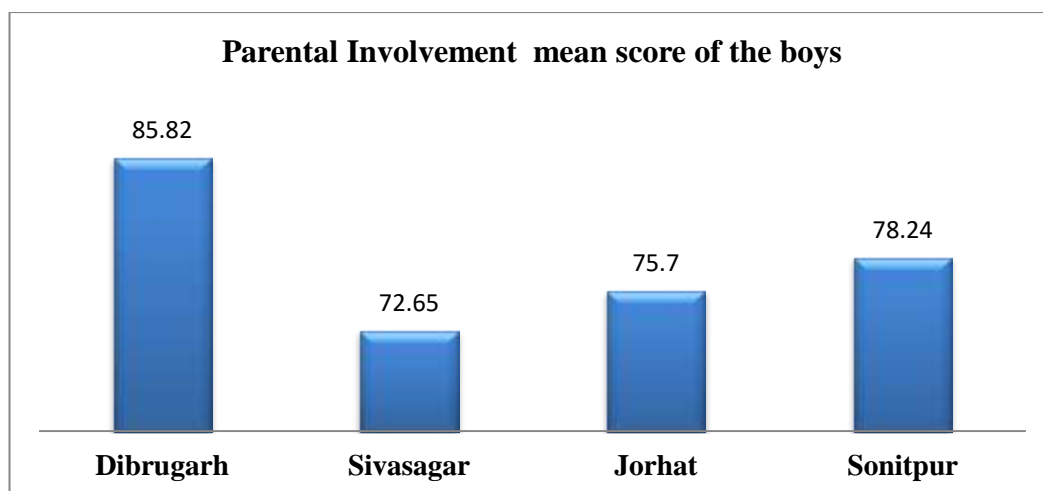| ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Parental Involvement	Between Groups	22161.291	3	7387.097	16.583	.000
	Within Groups	443692.684	996	445.475		
	Total	465853.975	999			

Interpretation :In the above table **4.15.1** , the ANOVA results show that the sum of squares between groups and within groups are 22161.291and 443692.684 respectively and mean squares are 7387.097 and 445.475 respectively. The F- ratio value is 16.58 with p value (.000) found to be less than 0.05level. Hence the null hypothesis"there is no significant difference between secondary level school children of tea garden labourersamong the four districts with regards to parental involvement"is rejected and it can be said there is significant difference between secondary level school children of tea garden among the four districts with regards to parental involvement.

H_{07}: **There is no significant difference between secondary level school boys of tea garden labourers among the four districts with regards to parental involvement**

Table 4.16: Descriptive of mean score values of secondary level school boys of tea garden labourers among the four districts with regards to parental involvement

Descriptive				
Parental Involvement	Districts	N	Mean	SD
	Dibrugarh	125	85.82	23.29
	Sivasagar	125	72.65	18.76
	Jorhat	125	75.70	22.21
	Sonitpur	125	78.24	16.50
	Total	500	78.10	20.89

Figure 4.11. Representing mean score values of secondary level school boys of tea garden labourersamong the four districtswith regards to parental involvement

In the above **table 4.16 and figure 4.11**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the dependent variable is the Parental Involvement of boys. The mean score derived is found be highest in Dibrugarh followed by Sonitpur and Jorhat among the girls and the lowest is found among girls in Sivasagar and thus there lies difference in the girls of every district.

Table 4.16.1: ANOVA results of secondary level school boys of the tea garden labourers among the four districts with regards to parental involvement

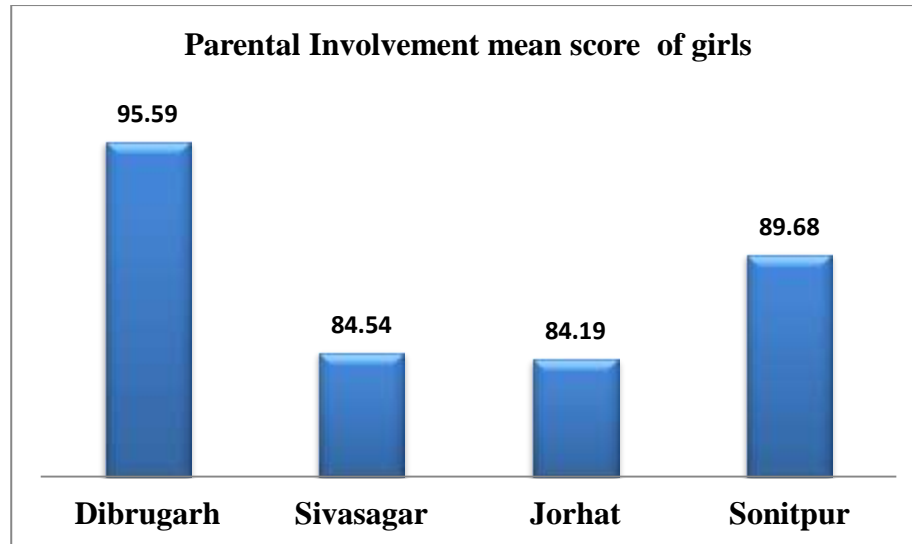| ANOVA						
Boys		**Sum of Squares**	**df**	**Mean Square**	**f**	**Sig.**
Parental Involvement of boys	**Between Groups**	11882.198	3	3960.733	9.539	0.001
	Within Groups	205955.184	496	415.232		
	Total	217837.382	499			

Interpretation: In the above **table 4.16.1,** the ANOVA results show that the sum of squares between groups and within groups are 11882.198 and 205955.184 respectively and mean squares are 3960.733and 415.232 respectively. The F ratio value is 9.539 with the p value (0.001) found to be less than 0.05 level .Hence the null hypothesis"there is no significant difference between secondary level school boys of tea garden labourersamong the four districts with regards to parental involvement" is rejected indicating there is significant difference between secondary level school boys of tea garden in regards to parental involvement among the four districts of Assam selected for the study.

H_{08}: **There is no significant difference between secondary level school girls of tea garden labourers among the four districts with regards to parental involvement**

Table 4.17: Descriptive of mean score values of secondary level school girls of tea garden labourers among the four districtswith regards to parental involvement

Descriptives				
	Districts	**N**	**Mean**	**SD**
Parental Involvement	**Dibrugarh**	125	95.59	18.02
	Sivasagar	125	84.54	22.90
	Jorhat	125	84.19	21.65
	Sonitpur	125	89.68	19.41
	Total	500	88.50	21.04

Figure 4.12. Representing of mean score values of parental Involvement of girls among the four districts

Parental Involvement mean score of girls

In the above **table 4.17 and figure 4.12**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the dependent variable is the parental involvement of girls. The mean score is found be highest in

Dibrugarh and secondly Sonitpur among the girls and lowest is found among girls in Sivasagar and Jorhat and thus there lies difference in the girls of every district.

Table 4.17.1: ANOVA results of the secondary level school girls of tea garden labourers among the four districts with regards to parental involvement .

ANOVA						
Girls		**Sum of Squares**	**df**	**Mean Square**	**f**	**Sig.**
Parental Involvement of girls	**Between Groups**	10739.568	3	3579.856	8.445	0.001
	Within Groups	210247.424	496	423.886		
	Total	220986.992	499			

Interpretation: In the above **table 4.17.1** the ANOVA results show that the sum of squares between groups and within groups are 10739.568 and 210247.424 respectively

135

and mean squares are 3579.856 and 423.886 respectively. Here the F ratio value is 8.445 with the p value (<.001) found to be less than 0.05 level. Hence the null hypothesis "there is no significant difference between secondary level school girls of tea garden labourersamong the four districtswith regards to parental involvement"is rejected indicating there is significant difference between secondary level school girls of tea garden in regards to parental involvement among the four districts of Assam selected for the study.

- **Relationship between parental involvement and academic achievement of secondary level school children of tea garden labourers of Assam.**

To study the relationship between parental involvement and academic achievement of secondary level school children the null hypotheses areformulated

H_{09}: **There is no significant relationship between the parental involvement and academic achievement of secondary level school children of tea garden labourers of Assam**.

Table 4.18: Showing the coefficient of correlation between parental involvement and academic achievement of secondary level school children of tea garden labourers of Assam.

Variable	N	'r'	p-value	Interpretation
Parental Involvement	**1000**	**.782**	**.000**	**Significant**
Academic Achievement				

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

Interpretation : The result presented in **table 4.18,** shows that the relationship between parental involvement and academic achievement. The table reveals that parental involvement and academic achievement is positively correlated with r value .748 and p value 0.00 which is significant. Therefore, the null hypothesis, "there is no significant relationship between the parental involvement and academic achievement of secondary level school children of tea garden labourers of Assam" is rejected and this shows that

there is a significant relationship between parental involvement and academic achievement of secondary level school children of tea garden labourers of Assam. Hence, it can be interpreted that parents has positive influence on the academic achievement of boys and girls.

H_{010} : **There is no significant relationship between parental involvement and academic achievement of secondary level children of tea garden labourers on the basis of gender.**

Table 4.19: Showing the coefficient of correlation between parental involvement and academic achievement of boys

Gender	Variables	N	r	Sig.	Interpretation
Boys	**Academic Achievement**	**500**	**.771**	**.000**	**Significant**
	Parental Involvement				

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

Interpretation:The result presented in **Table 4.19**,shows that the relationship between parental involvement and academic achievement. The table reveals that parental involvement and academic achievement is positively correlated with r value .771 and p value 0.00 which is significant. Therefore, the null hypothesis, there is no significant relationship between the parental involvement and academic achievement of boys is rejected. Hence, this shows that there is a significant relationship between parental involvement and academic achievement of secondary level boys of tea garden labourers and it can be interpreted that parents has an influence on the academic achievement ofboys.

Table 4.20: Showing the coefficient of correlation between parental involvement and academic achievement of secondary level school girls of tea garden labourers

Gender	Variable	N	r	Sig.	Interpretation
Girls	**Academic Achievement**	**500**	**.774**	**.000**	**Significant**
	Parental Involvement				

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

Interpretation: The result presented in **Table 20,** shows that the relationship between parental involvement and academic achievement among girls. The table reveals that parental involvement and academic achievement is positively correlated with r value .774 andp value 0.00 which is significant at 1% level. Therefore, the null hypothesisthere is no significant relationship between the parental involvement and academic achievement of secondary level girls of tea garden labourers is rejected and this shows that there is a significant relationship between parental involvement and academic achievement of secondary level school girls of tea garden labourers too.Hence there is a positive correlation between parental involvement and academic achievement among girls.

4.4 Analysis and Interpretation of Objective 3:**To study the School Environment as a factor influencing the Academic Achievement of secondary level school children of Tea Garden Labourers of Assam.**

Table 4.21: Level of school environment of the secondary level school children of tea garden labourers of Assam

Range of Z score	Range of score	Level	Frequency	Percent
+2.01 & above	181 & Above	Very highly favourable	2	0.2%
+1.26 to +2.00	172-180	Highly favourable	37	3.7%
+0.51 to +1.25	163-172	Moderately favourable	278	27.8%
-0.50 to +0.50	151-162	Average	468	46.8%
-0.51 to -1.25	142-150	Moderately Unfavourable	146	14.6%
-1.26 to -2.00	133-141	Unfavourable	53	5.3%
-2.01 & below	132 & Below	Very Unfavourable	16	1.6%
		Total	1000	100%

Figure 4.13: Graphical Representation showing the level of school environment among the secondary level school children of tea garden labourers of Assam
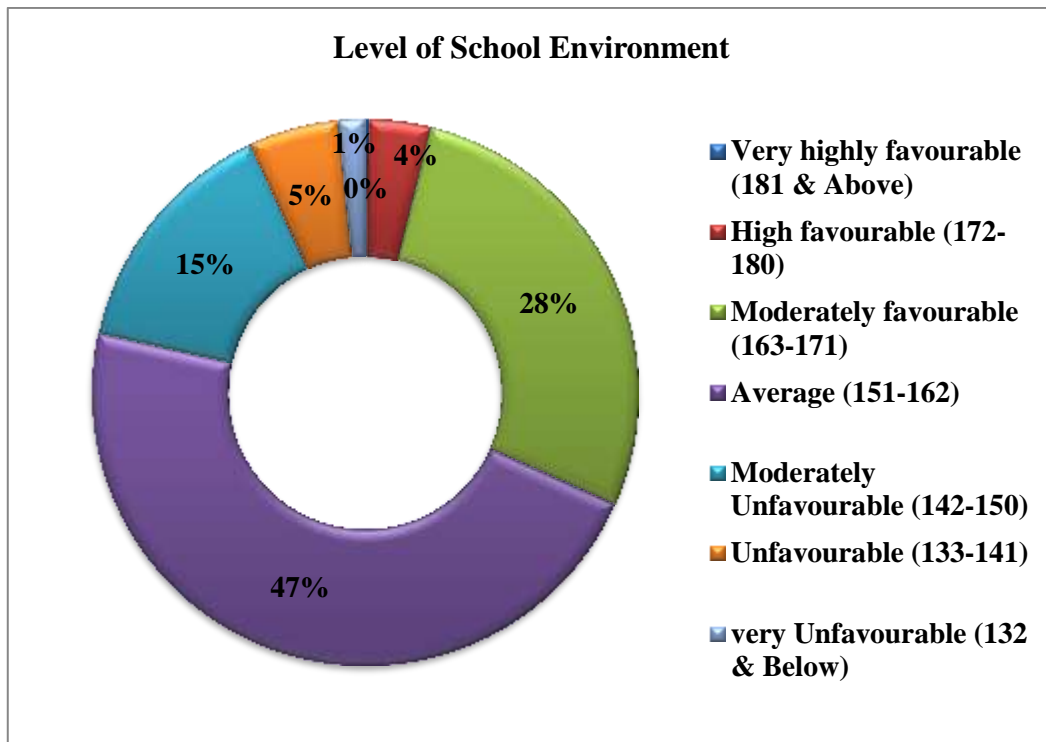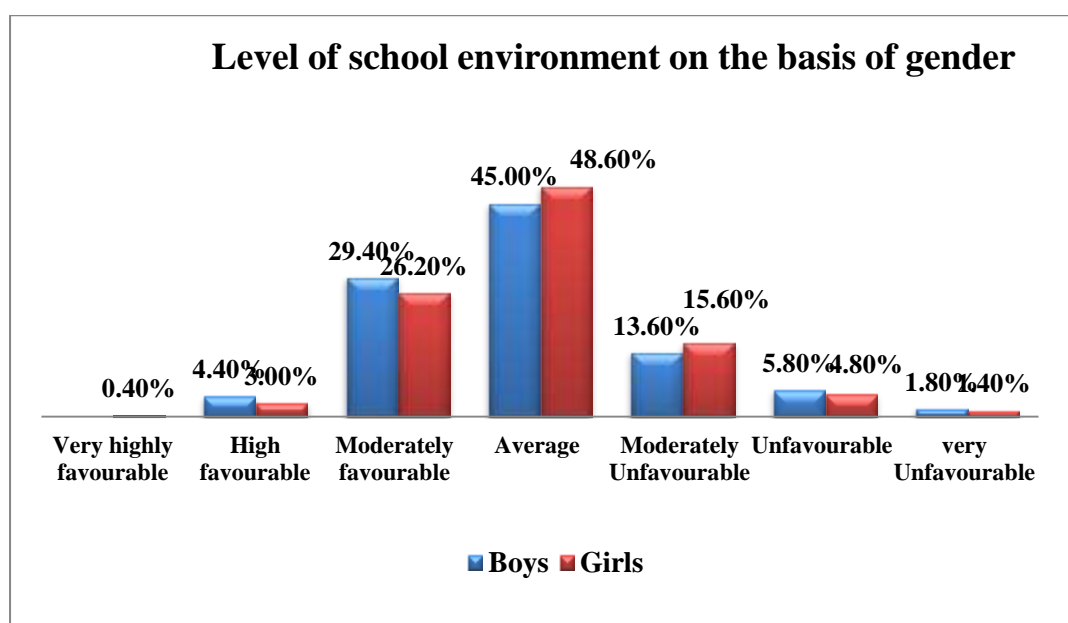

Interpretation:Table 21 and Fig 4.13 show the level of school environment of the secondary level school children of tea garden labourers of Assam in seven different categories i.e.; very highly favourable, highly favourable, moderately favourable, average, moderately unfavourable , unfavourable ,very unfavourable.

From the table, it has been observed that only 0.2% of children of tea garden labourers are found to have very highly favourable of school environment category,3.7% of children of tea garden labourers can be found under highly favourable,27.8 % of children of tea garden labourers are found to possess moderately favourable school environment ,46.8% of children of tea garden labourers are having average level of school environment ,14.6% have moderately favourable school environment and the remaining 5.3% belonged to unfavourable category and 1.6% falls under very unfavourable school environment .

Table 4.22: Level of school environment of the secondary level school children of the tea garden labourers of Assam on the basis of gender

Range of Z score	Range of score	Level of School Environment	Boys		Girls	
+2.01 & above	181 & Above	Very highly favourable	0	0%	2	0.4%
+1.26 to +2.00	172-180	Highly favourable	22	4.4%	15	3%
+0.51 to +1.25	163-171	Moderately favourable	147	29.4%	131	26.2%
-0.50 to +0.50	151-162	Average	225	45%	243	48.6%
-0.51 to -1.25	142-150	Moderately Unfavourable	68	13.6%	78	15.6%
-1.26 to -2.00	133-141	Unfavourable	29	5.8%	24	4.8%
-2.01 & below	132 & Below	very Unfavourable	9	1.8%	7	1.4%
			500	100%	500	100%

Figure 4.14: Graphical Representation showing level of school environment among the secondary level school children of tea garden labourers of Assam on the basis of gender.
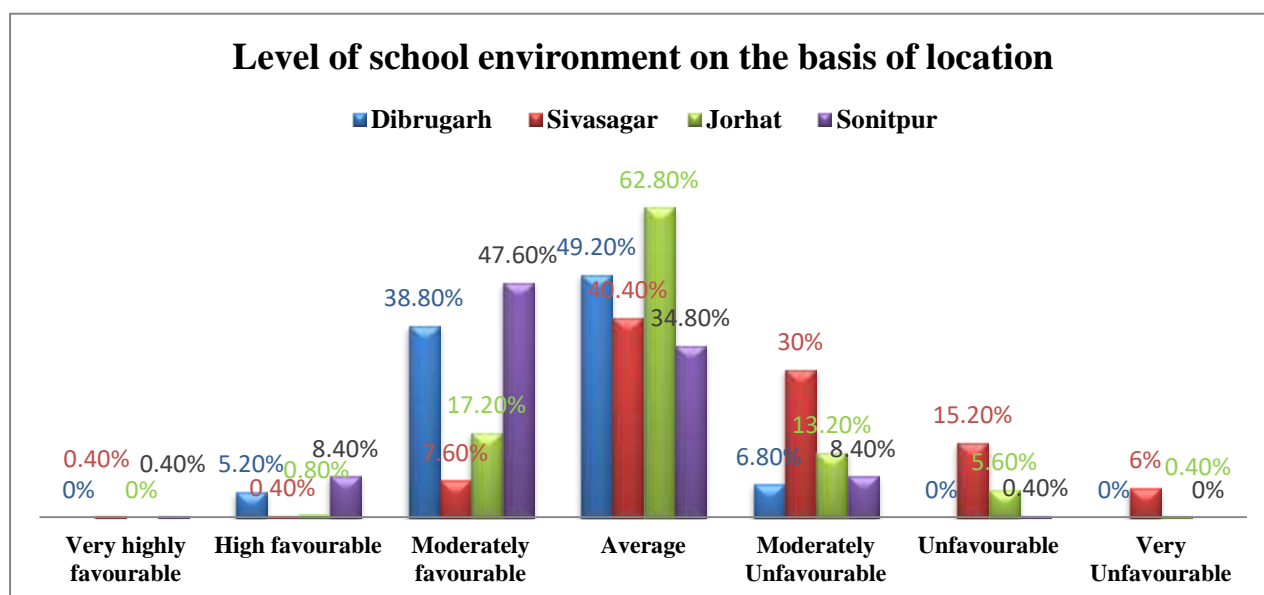

Level of school environment on the basis of gender

Interpretation: Table 4.22 and Fig 4.14 show the level of school environment among the children of tea garden labourers of Assam on the basis of gender. From the table, it has been observed that among the boys, 0% of boys considered their school environment to be very highly favourable, 4.4% of boys found their school environment to be highly favourable, 29.4% of boys found their school to be moderately favourable school environment, 45 % of boys are having average school environment and 13.6 % of boys are found to have moderately unfavourable school environment. Remaining 5.8% of boys consider their school environment to be unfavourable and 1.8% of boys consider their school to have highly unfavourable school environment.

Again from the table, it has been observed that for the girls, only 0.4% of girls find their school environment to be very highly favourable school environment, 3% of girls considers their school environment at highly favourable level, 26.2% of girls are found to possess moderately favourable level of school environment,48.6% of girls possess average level of school environment and 15.6%   considers their school to have moderately unfavourable level of school environment . And the remaining 4.6% and 1.4% of girls are found to have unfavourable and highly unfavourable level of school environment.

Table 4.23: Level of school environment of secondary level school children of tea garden labourers on the basis location

Range of Score	Level of School Environment	District							
		Dibrugarh		Sivasagar		Jorhat		Sonitpur	
181 & Above	Very highly favourable	0	0%	1	0.4%	0	0%	1	0.4%
172-180	High favourable	13	5.2%	1	0.4%	2	0.8%	21	8.4%
163-171	Moderately favourable	97	38.8%	19	7.6%	43	17.2%	119	47.6%
151-162	Average	123	49.2%	101	40.4%	157	62.8%	87	34.8%
142-150	Moderately Unfavourable	17	6.8%	75	30%	33	13.2%	21	8.4%
133-141	Unfavourable	0	0%	38	15.2%	14	5.6%	1	0.4%
132 & Below	Very Unfavourable	0	0%	15	6%	1	0.4%	0	0%
Total		250	100%	250	100%	250	100%	250	100%

Figure 4.15: Graphical Representation showing the level of school environment of the secondary level school children of the tea garden labourers of Assam on the basis of location

Interpretation: The above **table 4.23 and figure 4.15** shows the level of school environment of the secondary level school children of tea garden labourers of Assam on the basis of location.

It is observed from the table and figure 3, that in the very highly favourable school environment category among the four districts 0 % of children from Dibrugarh are found, followed by 0.04% of children from Sivasagar , 0% of Jorhat and 0.4% is found in Sonitpur.

In high favourable level 5.2% of children from Dibrugarh, 0.4% from Sivasagar,0.8% from Jorhat and 8.4 % again from Sonitpur are found .

In the Moderately favourable category among the children from the four districts 38.8% from Dibrugarh 7.6% from Sivasagar, 17.2% from Jorhat and lastly 47.6% falls from Sonitpur.

In the average category 49.2 % from Dibrugarh, 40.4% from Sivasagar, again 62.8% from Jorhat and lastly 34.8% from Sonitpur are found.

Under moderately unfavourable category 6.8% of secondary level school children of Dibrugarh falls, followed by 30% from Sivasagar, 13.2% from Jorhat and 8.4% from Sonitpur falls.

In the unfavourable level, 0% of children from Dibrugarhare found, 15.2% of children were from Sivasagar, 5.6% were from Jorhat and only 0.4% of children are from Sonitpur.

Lastly in the very unfavourable level, 0% of children from Dibrugarh are found, 6% from Sivasagar, 0.4% from Jorhat and 0% from Sonitpur isfound.

Overall, from the results,shown in the table and graph it is clear that most of the children from the four districts selected have average level of school environment .

H_{011} : **There is no significant difference between secondary level school boys and girls of tea garden labourers with regard to school environment.**

Table 4.24: Mean score difference between secondary level school boys and girls of tea garden labourers with regard to school environment.

Gender	N	Mean	Std. Deviation	df	t	p value	Significance
Boys	500	157.248	9.63973	998	0.59	0.555	Not Significant
Girls	500	156.896	9.21646				

Interpretation: From the abovetable **4.24**, it can be seen that the mean score of boys is 157.24 with SD 9.63 and the mean score of the Girls is 156.89 with SD 9.21.It is noticed that, the mean score of the boys and girls is almost equal to each other in respect of their school environment. Here the t value is found to be 0.59 with p value (0.555) which is higher than .05 level (p>.05). As the t test is conducted at 5% level of significance and the p value derived is higher than 0.05, thus the null hypothesis,'there is no significant difference between secondary level school boys andgirls with regard to school environment' is not rejected. So it can be concluded that, there is no significant difference between boys and girls with regard to school environment.

Table 4.25: Mean score difference of the secondary level school boys and girls of tea garden labourers of Assam with respect to school environment on the basis of location.

District	Gender	N	Mean	SD	t	Sig.	Interpretation
Dibrugarh	Boys	125	159.8	7.76	1.87	0.063	Not significant
	Girls	125	161.53	6.21			
Sivasagar	Boys	125	148.5	10.70	1.57	0.118	Not Significant
	Girls	125	150.52	9.55			
Jorhat	Boys	125	157.46	6.75	3.272	0.001	Significant
	Girls	125	154.46	7.71			
Sonitpur	Boys	125	163.14	5.86	2.325	0.021	Significant
	Girls	125	161.05	8.14			

Interpretation: The above **table 4.25**, shows the significant difference of mean score between the secondary level school boys and girls of tea garden labourers in the four districts with regard to school environment.

In Dibrugarh district, it is evident that the mean score values of boys are 195.8 with SD 7.76 and the mean score of girls are 216.1 with SD 6.21 respectively. Here the t-value is 1.87 with p value (0.063) which is higher than .05 level (p>.05).And thus it is proved there is no significant difference between secondary level school boys and girls of Dibrugarh district with regard to school environment.

In Sivasagar district, the mean score values of boys are 148.51 with SD 10.70 and the mean score of girls are 150.52 with SD 9.55 respectively. Here the t-value is 1.571 with p value (0.118) which is higher than .05 level (p>05).And thus it is proved there is no significant difference between secondary level school boys and girls of Sivasagar district with regard to school environment.

In Jorhat district, the mean score values of boys are 157.46 with SD 6.75 and the mean score of girls are 154.46 with SD 7.71 respectively. Here the t-value is 3.27 with p value (0.001) which is less than .05 level (p<.05).And thus it is proved there is significant difference between secondary level school boys and girls of Jorhatdistrict with regard to school environment.

In Sonitpur district, the mean score values of boys are 163.14 with SD 5.86 and the mean score of girls are 161.05 with SD 8.14 respectively. Here the t-value is 2.32 with p value (0.021) which is less than .05 level (p<.05).And thus it is proved there is

significant difference between secondary level school boys and girls of Sonitpurdistrict with regard to school environment.

Hence it can be interpreted that among the four districts in Dibrugarh and Sivasagar district there is nosignificant difference between boys and girls in relation to their school environment. But inJorhat district and Sonitpur district it is found there is significant differencebetween secondary level school boys and girls with regard to school environment.

H_{012}: **There is no significant difference between secondary level school children of tea garden labourers among the four districts with regards to school environment**

Table 4.26. Descriptive of mean score values of secondary level school children of tea garden labourers among the four districts with regards to school environment

Descriptives				
School Environment	Districts	N	Mean	SD
	Dibrugarh	250	160.70	7.07
	Sivasagar	250	149.52	10.18
	Jorhat	250	155.96	7.39
	Sonitpur	250	162.10	7.16
	Total	1000	157.07	9.43

Figure 4.16 Representing the mean score values of secondary level school children of tea garden labourers among the four districts with regards to school environment
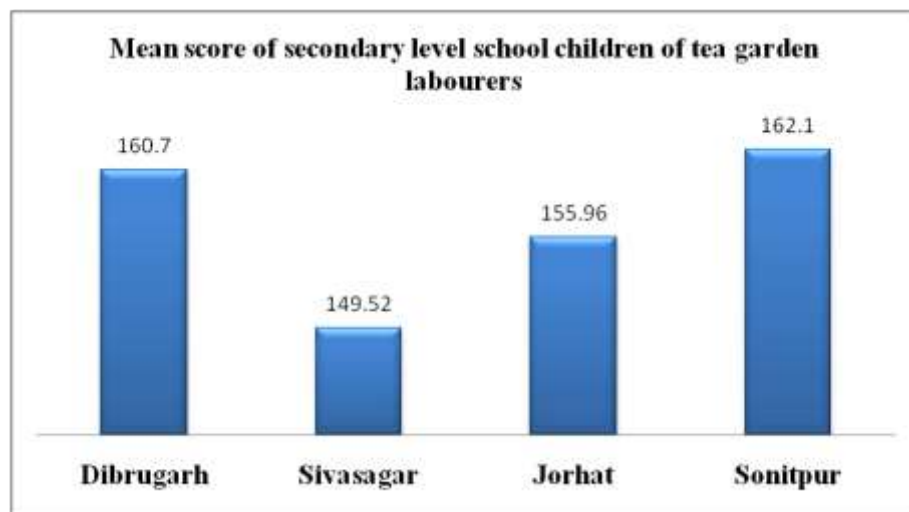
In the above **table 4.26 and figure 4.16**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the

dependent variable is the School environment. Through the mean scores derived it can be observed that school environment score of the students is highest in Sonitpur and Dibrugargh followed by Jorhat and lowest in Sivasagar.

Table 4.26.1: ANOVA results of the secondary level school children of tea garden labourers among the four districts with regards to school environment.

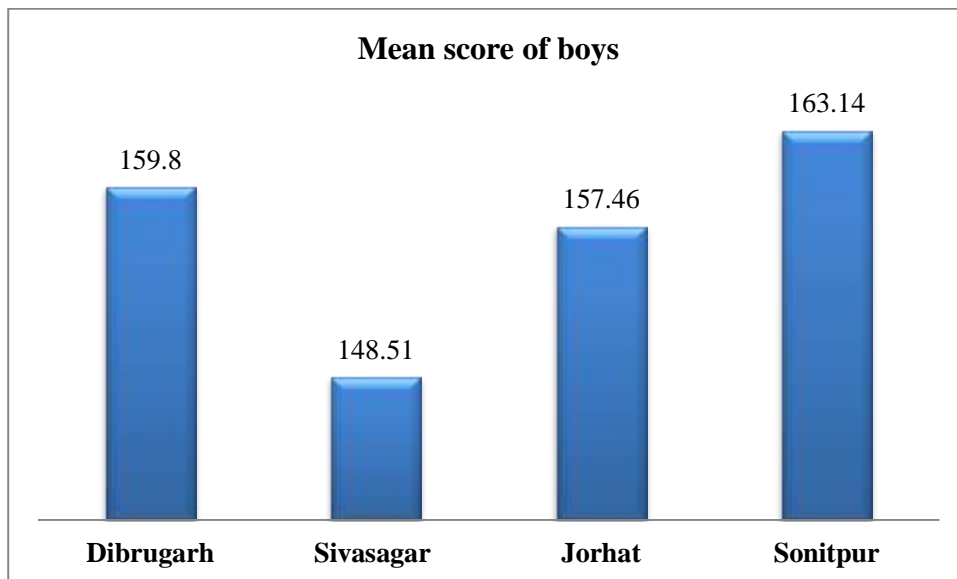| ANOVA						
School Environ ment		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	24183.14	3	8061.048	124.27	0.001
	Within Groups	64603.67	996	64.863		
	Total	88786.82	999			

Interpretation: In the above **table 4.26.1**, the ANOVA results show that the sum of squares betweengroups and within groups are 24183.14 and 64603.67 respectively and mean squares are 8061.048 and 64.863   respectively. Here,the F- ratio value 124.27 with p value (.001) found to be less than 0.05 level of significant.Hence the null hypothesis "there is no significant difference between secondary level school children of tea garden labourersamong the four districts with regards to school environment"is rejected and it can be said there is significant difference between secondary level school children of tea garden among   the four districts with regards to school environment.

H_{013}: There is no significant difference between secondary level school boys of tea garden labourers among the four districts with regards to school environment

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Table 4.27. Descriptive of mean score of school environment of secondary level school boys of tea garden labourers among the four districts.

Descriptives				
Gender	Districts	N	Mean	SD
Boys	Dibrugarh	125	159.8	7.76
	Sivasagar	125	148.51	10.7
	Jorhat	125	157.46	6.75
	Sonitpur	125	163.14	5.86
	Total	500	157.24	9.63

Figure 4.17. Representing the mean score values of secondary level school boys of tea garden labourers among the four districts with regards to school environment

In the above **table 4.27 and figure 4.17**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the dependent variable is the School environment of boys. Through the mean scores derived it can be observed that school environment score of the boys is highest in Sonitpur followed by Dibrugarh and Jorhat and lowest is found in boys of Sivasagar.

Table 4.27.1: ANOVA results of the secondary level school boys of tea garden labourers among the four districts with regards to school environment .

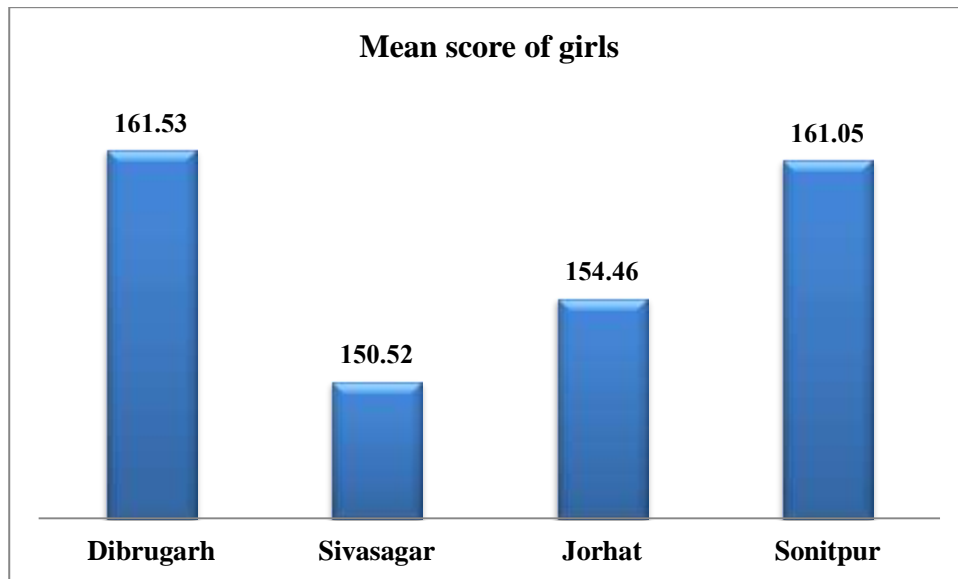| ANOVA						
School Environment						
Gender		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Boys	**Between Groups**	14751.568	3	4917.189	77.138	0.001
	Within Groups	31617.680	496	63.745		
	Total	46369.248	499			

Interpretation: In the above table 4.27.1, the ANOVA results show that the sum of squares between groups and within groups are 14751.568 and 31617.680respectively and mean squares are 4917.189 and 63.745respectively. The F- ratio value is 77.138 with p value (.001) which is found to be less than 0.05 level of significance .Hence the null hypothesis"there is no significant difference between secondary level school boys of tea garden labourersamong the four districts with regards to school environment"is rejected and it can be said there is significant difference between secondary level school boys of tea garden in regards to school environment among the four districts of Assam selected for the study.

H_{014}**: There is no significant difference between secondary level school girls of tea garden labourers among the four districts with regards to school environment**

Table 4.28. Descriptive of mean score values of school environment of Secondary level school girls of tea garden labourers among the four districts

Descriptive				
Girls	**Districts**	**N**	**Mean**	**SD**
	Dibrugarh	125	161.53	6.21
	Sivasagar	125	150.52	9.55
	Jorhat	125	154.46	7.71
	Sonitpur	125	161.05	8.14
	Total	500	156.89	9.21

Figure 4.18 Representing the mean score values of secondary level school girls of tea garden labourers among the four districts with regards to school environment

Mean score of girls

District	Mean score
Dibrugarh	161.53
Sivasagar	150.52
Jorhat	154.46
Sonitpur	161.05

In the above **table 4.28 and figure 4.18**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school girls and the dependent variable is the School environment of girls. Through the mean scores derived it can be observed that school environment score of the students is almost same in Dibrugarh and Sonitpur followed by Jorhat and lowest in Sivasagar.

Table 4.28.1: ANOVA results of the secondary level school girls of tea garden labourers among the four districts with regards to school environment.

ANOVA						
School Environment						
Gender		Sum of Squares	df	Mean Square	F	Sig.
Girls	Between Groups	10662.656	3	3554.219	55.57	0.001
	Within Groups	31723.936	496	63.960		
	Total	42386.592	499			

Interpretation: It is observed from the above **table 2.28.1** the ANOVA results show that the sum of squares between groups and within groups is 10662.656 and

31723.936respectively and mean squares are 3554.219 and 63.960 respectively. The F ratio value is 55.57 with the p value (0.001) found to be less than 0.05 level of significance. Hence the null hypothesis"there is no significant difference between secondary level school girls of tea garden labourers among the four districts with regards to school environment" is rejected indicating there is significant difference between secondary level school girls of tea garden in regards to their school environment among the four districts selected for the study.

- **Relationship between school environment and academic achievement**

To study the relationship between school environment and academic achievement the following null hypotheses are formulated.

H_{015}: **There is no significant relationship between school environment and academic achievement of secondary level school children of tea garden labourers of Assam.**

Table 4.29: showing the pearson's co efficient of correlation (r) between school environment and academic achievement of secondary level school children of tea garden labourers of Assam.

Variables	N	r	Sig.	Interpretation
School Environment and Academic Achievement	1000	.131	0.001	Significant

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

Interpretation:Table 4.29 above shows the coefficient of correlation between school environment and academic achievement. The table reveals that school environment and academic achievement are positively correlated with 'r' value to be .131 and p value (0.001) which is significant. Thus the null hypothesis, there is no significant relationship between school environment and academic achievement of secondary level school children of tea garden labourers of Assam is rejected and it is proved that there is a significant relationship between school environment and academic achievement of secondary level school children. It shows that more the school environment is proper the higher will be academic achievement.

H_{016} : **There is no significant relationship between school environment and academic achievement of secondary level school children of tea garden labourers on the basis of gender**.

Table 4.30: Showing the Pearson's coefficient of correlation between school environment and academic achievement of boys.

Boys	Variables	N	r	Sig.	Interpretation
	School Environment and Academic Achievement	500	.163	0.001	Significant

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

Interpretation:Table 4.30 above shows the coefficient of correlation between school environment and academic achievement in case of boys. The table reveals that school environment and academic achievement are positively correlated with 'r' value to be .163 and p value (0.001) which is significant. Thus the null hypothesis, there is no significant relationship between school environment and academic achievement of secondary level school boys of tea garden labourers of Assam is rejected and it is proved that there is a significant relationship between school environment and academic achievement of secondary level school boys. It shows that more the school environment is proper the higher will be academic achievement of boys.

Table 4.31: Showing the Pearson's Coefficient of Correlation (r) between school environment and academic achievement of girls.

Girls	Variables	N	r	Sig.	Interpretation
	School Environment and Academic Achievement	00	.117	0.009	Significant

Interpretation: The **table 4.31** above shows the coefficient of correlation between school environment and academic achievement in case of girls. The table reveals that school environment and academic achievement are positively correlated with 'r' value

to be .117 and p value (0.009) which is significant. Thus the null hypothesis, "there is no significant relationship between school environment and academic achievement of secondary level school girls of tea garden labourers of Assam" is rejected and it is proved that there is a significant relationship between school environment and academic achievement of secondary level school girls . It shows that more the school environment is proper the higher will be academic achievement of girls too.

4.5Analysis and Interpretation of Objective 4: To study the Study Habit as a factor influencing the Academic Achievement of secondary level school children of Tea Garden Labourers of Assam.

Table 32: Level of Study habits of secondary level school children of tea garden labourers of Assam.

Range of Scores	Z score Range	Study Habit Level	Total	%
269 and above	2.01 and above	Excellent Study Habits	15	1.5%
247 to 268	1.26 To 2.00	High Study Habits	77	7.7%
225 to 246	0.51 To 1.25	Above Average Study Habits	131	13.1%
196 to 224	-0.50 To 0.50	Moderate Study Habits	259	25.9%
174 to 195	-1.25 to '-0.51	Below Average Study Habits	281	28.1%
152 to 173	- 2.00 to '- 1.26	Poor Study Habits	199	19.9%
151 and below	-2.01 and below	Very Poor Study Habits	38	3.8%
			1000	100%

Figure 4.19: Graphical representation of level of study habit of the secondary level school children of tea garden labourer of Assam .
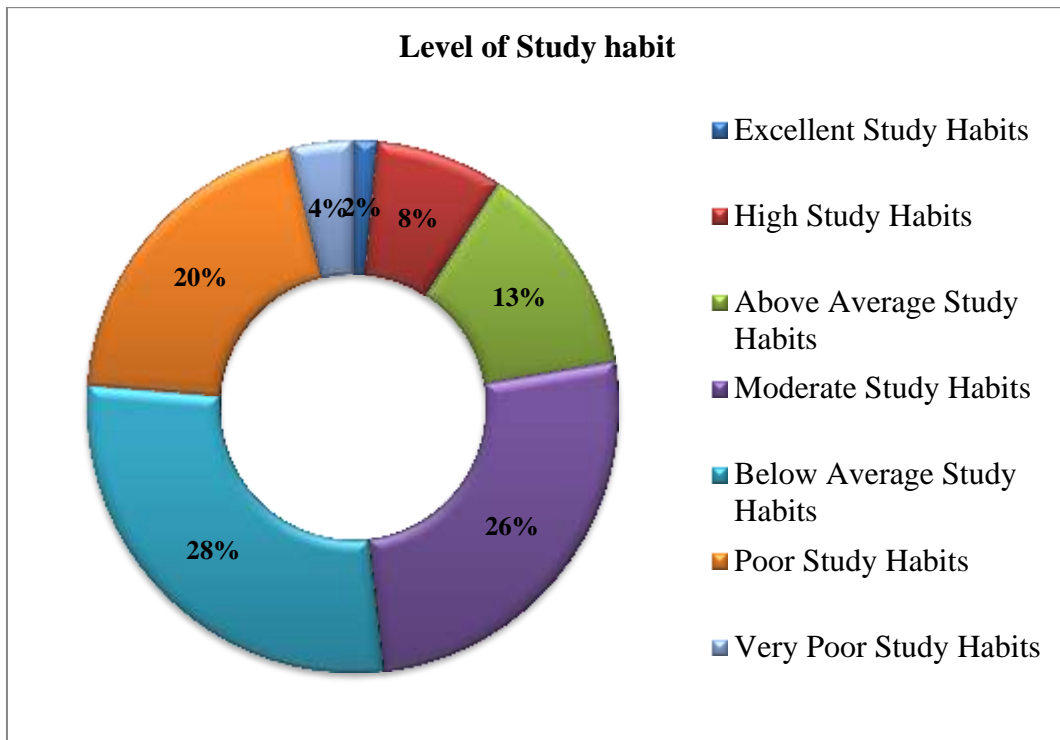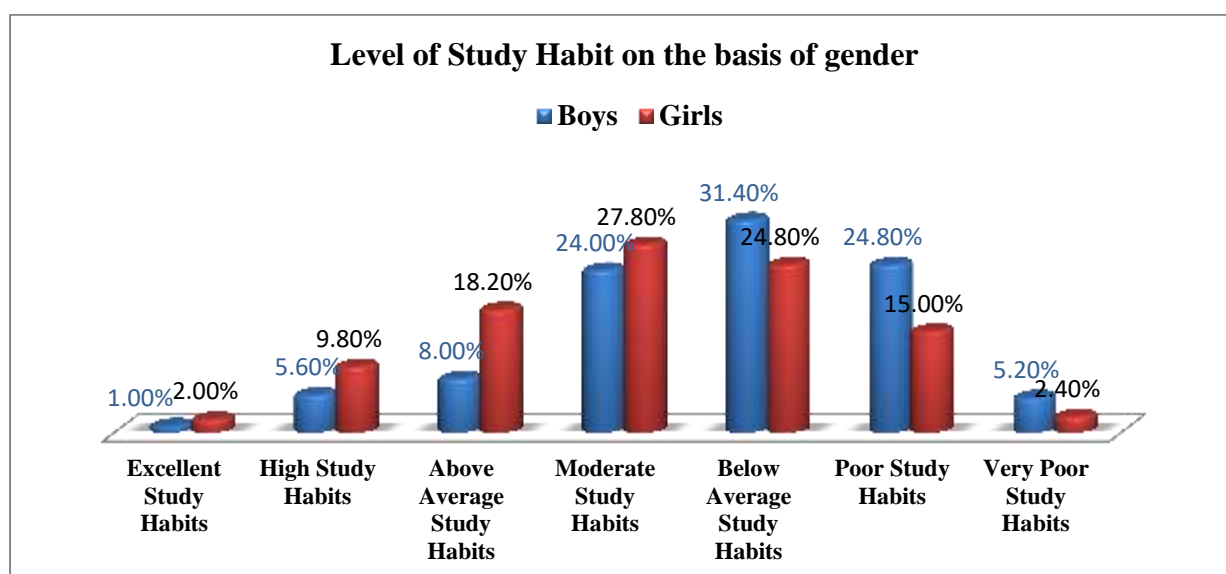

Interpretation : The above **table 4.32 and figure 4.19**, shows level of study habit of the secondary level school children of tea garden labourers of Assam in seven different categories i.e.; excellent study habits , high study habits, above average study habits, moderate study habits, below average study habits, poor study habits and very poor study habits

From the above table and figure it can be observed that in the excellent study habit level only 1.50% of secondary level school children are found, followed by 7.70% children in high study habit level. In the above average study habit level only 13.10% of children are found while in the moderate level of study habit 25.09% of children are found. In the below average study habit level category 28.10% of children are found. 19.90% of children are found in the poor study habit category and on the very poor study habit category 3.80% of children fall.

Table 4.33: Level of study habit of secondary level school children of tea garden labourers of Assam on the basis of gender

Range of Scores	Z score range	Study Habit Level	Boys	%	Girls	%
269 and above	2.01 and above	Excellent Study Habits	5	1%	10	2%
247 to 268	1.26 To 2.00	High Study Habits	28	5.6 %	49	9.8%
225 to 246	0.51 To 1.25	Above Average Study Habits	40	8%	91	18.2%
196 to 224	-0.50 To 0.50	Moderate Study Habits	120	24%	139	27.8%
174 to 195	-1.25 to '-0.51	Below Average Study Habits	157	31.4 %	124	24.8%
152 to 173	- 2.00 to '-1.26	Poor Study Habits	124	24.8 %	75	15%
151 and below	-2.01 and below	Very Poor Study Habits	26	5.2 %	12	2.4%
Total			500	100 %	500	100%

Figure 4.20: Graphical representation showing the level of study habit of the secondary level school children of tea garden labourers of Assam on the basis gender
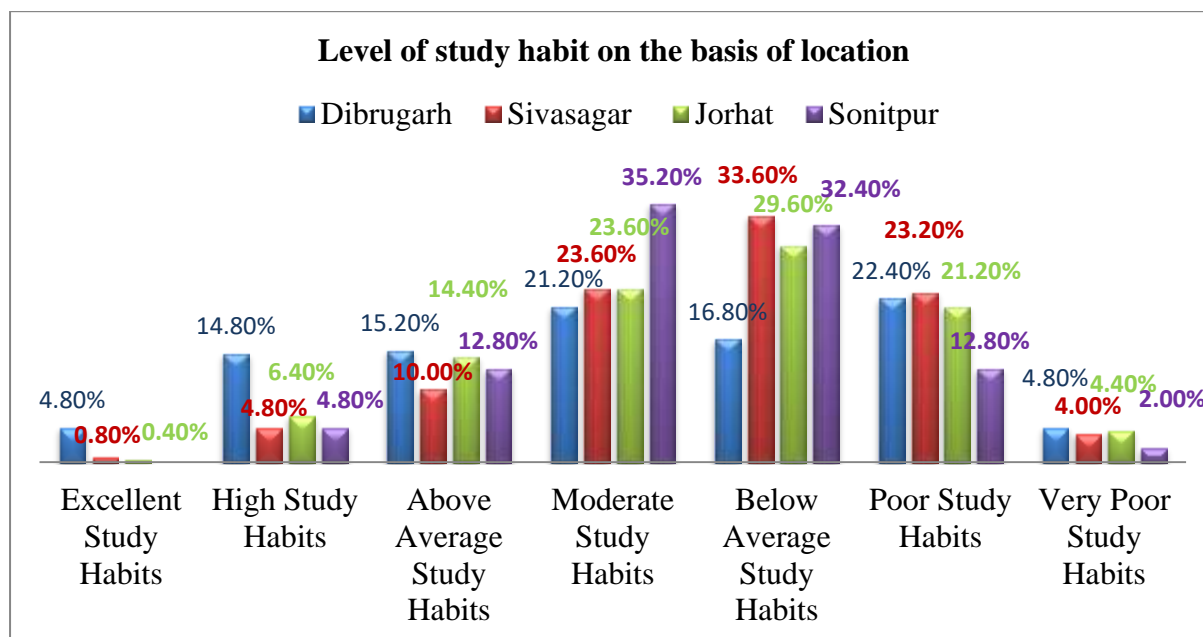
Interpretation: The above **table 4.33 and figure 4.20** shows the level of study habit of the secondary level school children of tea garden labourers of Assam on the basis of gender. From the table, it has been observed that among the boys 1% of boys have excellent study habit,5.6% of boys have high study habit and 8% of boys have above average level of study habit. Then in the moderate level of study habit 24% of boys are found. 31.4% of the boys are found to have below average study habit. The remaining 24.8 % of boys have poor study habit and   5.2 % of boys have very poor level of study habit.

From the table, it has been observed that among the girls, only 2% of girls students have excellent study habit,9.8 %of girls are found to possess high study habit ,18.2% of girls have above average study habits,27.8% of girls have moderate level of study habit .And in below average study habits 24.8% of girls are found.In the poor study habits 15% of girls respectively have been observed. It is also evident that 2.4% of girls have very poor study habit.

Table 4.34: Level of Study Habit of secondary level school children of tea garden labourers on the basis of location.

Range of Scores	Study Habit Level	Districts							
		Dibrugarh		Sivasagar		Jorhat		Sonitpur	
		N	%	N	%	N	%	N	%
269 and above	Excellent Study Habits	12	4.8%	2	0.8%	1	0.4%	0	0%
247 to 268	High Study Habits	37	14.8%	12	4.8%	16	6.4%	12	4.8%
225 to 246	Above Average Study Habits	38	15.2%	25	10%	36	14.4%	32	12.8%
196 to 224	Moderate Study Habits	53	21.2%	59	23.6%	59	23.6%	88	35.2%
174 to 195	Below Average Study Habits	42	16.8%	84	33.6%	74	29.6%	81	32.4%
152 to 173	Poor Study Habits	56	22.4%	58	23.2%	53	21.2%	32	12.8%
151 and below	Very Poor Study Habits	12	4.8%	10	4%	11	4.4%	5	2.0%
Total		250	100%	250	100%	250	100%	250	100%

Figure 4.21: Graphical representation showing the level of study habit of secondary level school children of tea garden labourers of Assam on the basis of location

Interpretation: The above **table 4.34 and figure 4.21** shows the level of study habit of the secondary level school children of tea garden labourers of Assam on the basis of location.

It is observed from the results in table and figure 3, that in the excellent study habit category among the four districts 4.80% of children from Dibrugarh are found followed by 0.80% from Sivasagar ,0.40% of Jorhat and 0% is found in Sonitpur.

In high study habit level 14.80% of children from Dibrugarhare found ,4.80% of children are from Sivasagar ,6.40% are from Jorhatand 4.80% are from Sonitpur

In the above average study habit category among the children from the four districts 15.20% from Dibrugarh 10% from Sivasagar , 14.4% from Jorhat and lastly 12.8% of children from Sonitpur are found.

In the moderate study habit level category 21.2% from Dibrugarh, 23.6% from Sivasagar, again 23.6% from Jorhat and lastly 35.2% from Sonitpurare found.

Under below average study habit category 16.8% of secondary level school children of Dibrugarhfalls,followed by 33.6% from Sivasagar, 29.6% from Jorhat and 32.4% from Sonitpur falls.

In the poor study habit level, 22.4% of children from Dibrugarh are found, 23.2% of children are from sivasagar, 21.2% are from Jorhat and only 12.8% of children are inSonitpur.

Lastly in the very poor study habit level, 4.8% of children from Dibrugarhare found, 4% from Sivasagar, 4.40% from Jorhat and only 2% from Sonitpurare found.

H_{017}:**There is no significant difference between secondary level school boys and girls of tea garden labourers with regards to study habit.**

Table 4.35: Mean score difference between secondary level school boys and girls of tea garden labourers with regards to study habit.

Study Habit	N	Mean	SD	df	t	Sig.	Level of significance
Boys	500	191.04	30.57	998	6.85	0.001	Significant
Girls	500	204.97	33.67				

Interpretation: From the **table 4.35** it can be seen that,secondary level school boys had mean score of 191.04 with SD 30.57 and secondary level school girls had mean score 204.97 with SD 33.67. The higher mean score of girls implies that the respondents obtained higher score in the study habit level than the boys. Again here the t value is found to be 6.85 with p value (.001) which is less than .05 level. As the t test is conducted at 5% level of significance and the p value derived is less than 0.05 , hence the null hypothesis"there is no significant difference between secondary level school boys and girls of tea garden labourers regard to study habit" is rejected. And it indicates there is significant difference between boys and girls of tea garden labourers with regards to study habit.

Table 4.36: Mean score difference between secondary level school boys and girls of tea garden labourers with regards to study habit on the basis of location.

District	Gender	N	Mean	Std. D	df	t	Sig.	Interpretation
Dibrugarh	Boys	125	195.8	37.53	248	4.128	0.001	Significant
	Girls	125	216.1	40.04				
Sivasagar	Boys	125	184.5	26.07	248	4.368	0.001	Significant
	Girls	125	200.4	31.08				
Jorhat	Boys	125	190.8	34.87	248	2.018	0.045	Significant
	Girls	125	199.1	28.98				
Sonitpur	Boys	125	193.0	19.68	248	3.469	0.001	Significant
	Girls	125	204.4	31.15				

Interpretation: The above **table 4.36** shows the significant difference of mean score among the secondary level school boys and girls of tea garden labourers in the four districts with respect to their study habit

It is evident from the results in table-5 that among the four districts, in the Dibrugarh district mean score values of boys is found to be 195.8 with SD 37.53 and the mean score of girls is found to be 216.1 with SD 40.04 respectively. Here t-value is found to be 4.128 with p value (.000) which is less than .05 level($p<.05$). Thus it is proved that there is significant difference between secondary level school boys and girls of Dibrugarh district with regards to study habit

In Sivasagar district, the mean score values of boys is found to be 184.5 with SD 26.07 and the mean score of girls is found be 200.4; with SD 31.08 respectively. Here the t-value is 4.368 with p value (.000) which is less than .05level($p<.05$). Thus it is proved that there is significant difference between boys and girls of Sivasagar district with regards to study habit.

In Jorhat district, the mean score values of boys is found to be 190.8 with SD 34.87and the mean score values of girls is found to be 199.1 with 28.98 respectively. Here the t-value is 2.018with p value (0.045)which is less than .05 level ($p<.05$). Thus it is proved

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that there issignificant difference between boys and girls of Jorhat district with regards to study habit.

In Sonitpur district, the mean values ofboys is found to be 193.0with SD 19.68 and the mean value score of girls is found to be204.4with SD 31.15 respectively. Here the t-value is 2.018with p value .000which is less than .05 level (p<.05). Thus it is proved that there is significant difference between boys and girls of Sonitpurdistrict with regards to study habit.

Hence it can be concluded that among the all four districts in Dibrugarh, Sivasagar and Jorhat ,Sonitpur district there is a significant difference between secondary level school boys and girls with regards to study habit.

H_{018}:**There is no significant difference between secondary level school children of tea garden labourers among the four districts with regards to study habit.**

Table 4.37: Descriptive of mean score values between school children of Tea Garden Labourers among the four districts with regards to study habit.

Descriptives				
Study Habit	**Districts**	**N**	**Mean**	**SD**
	Dibrugarh	250	205.98	40.03
	Sivasagar	250	192.44	29.70
	Jorhat	250	194.9	32.25
	Sonitpur	250	198.6	26.62
	Total	1000	198.0	32.8

Figure 4.22 Representing the of mean score values of secondary level school children of tea garden labourers among the four districts with regards to study habit
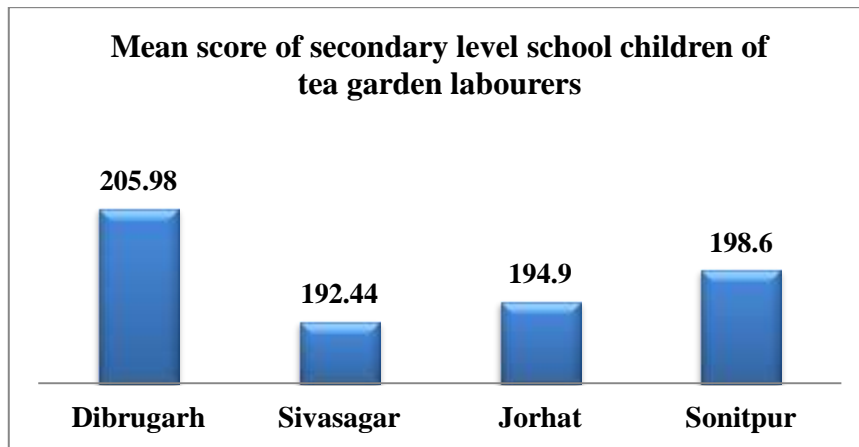
In the above **table 4.37 and figure 4.22**, the results of the ANOVA analysis is depicted, where, the categorical variable is the district of the school students and the dependent variable is the study habit. Through the mean scores derived it can be observed that the study habit score among the childrens of tea garden labourers is highest in Dibrugarh followed by Sonitpur and the study habit score among the children of tea garden labourers of Jorhat and Sivasagar is lower than the other two districts.

Table 3.37.1: ANOVA results of secondary level school children of tea garden labourers among the four districts

ANOVA					
Study Habit					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	26158.624	3	8719.541	8.236	.000
Within Groups	1054491.360	996	1058.726		
Total	1080649.984	999			

Interpretation: In the above **table 3.37.1**, the ANOVA results show that the sum of squares between groups and within groups are 26158.624 and 1054491.360 respectively

and mean squares are 8719.54 and 1058.72respectively. The F- ratio value is 8.236 with p value (.000) is found to be less than 0.05level.Hence the null hypothesis"there is no significant difference between secondary level school children of tea garden labourers among the four districts with regards to study habit"is rejected and it can be said there is significant difference between secondary level school children of tea garden with regards to study habit in the four districts of Assam selected for the study.

H_{019}: **There is no significant difference between the school boys of tea garden labourersamong the four districts with regards to study habit**

Table 4.38: Descriptive of mean score values between the school boys of tea garden labourersamong the four districts with regards to study habit

Descriptives				
Study	**Districts**	**Boys**	**Mean**	**SD**
Habit	**Dibrugarh**	**125**	**195.85**	**37.52**
	Sivasagar	**125**	**184.52**	**26.06**
	Jorhat	**125**	**190.82**	**34.87**
	Sonitpur	**125**	**192.95**	**19.67**
	Total	**500**	**191.03**	**30.57**

Figure 4.23 Representing the of mean score values of secondary level school boys of tea garden labourers among the four districts with regards to study habit

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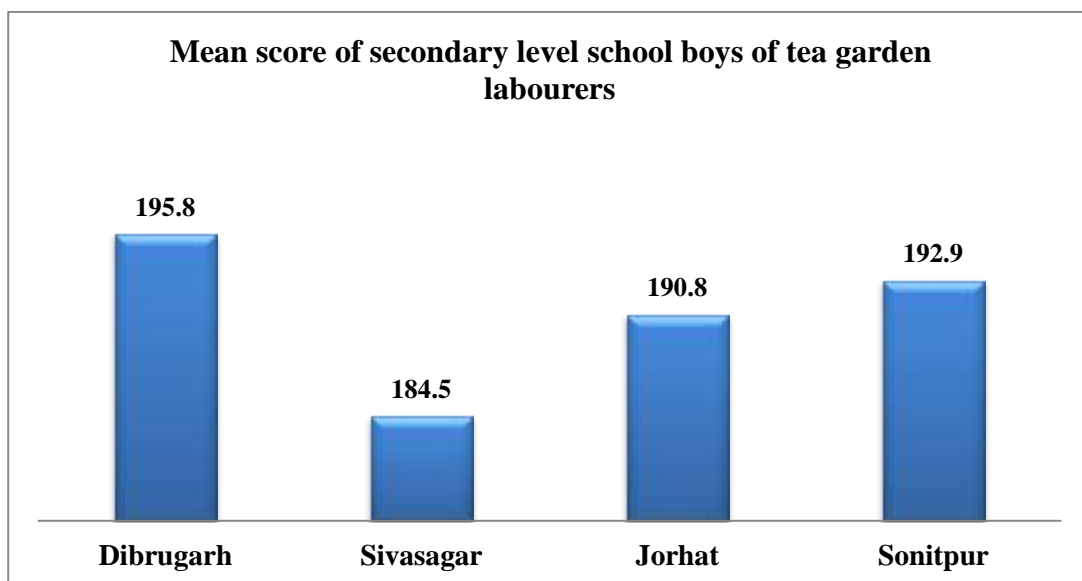
In the above **table 4.38 and figure 4.23**, the results of the ANOVA analysis is depicted, where, the categorical variable is the districts of the secondary level school boys of tea garden labourers of Assam and the dependent variable is the study habit of boys. Through the mean scores derived it can be observed that the study habit score of boys is highest in Dibrugarh followed by Jorhat and Sonitpur and the mean score of Sivasagar is found to be very minimal in comparison to other three districts.

Table 4.38.1: ANOVA results of secondary level school boys of tea garden labourers among the four districts with regards to study habit.

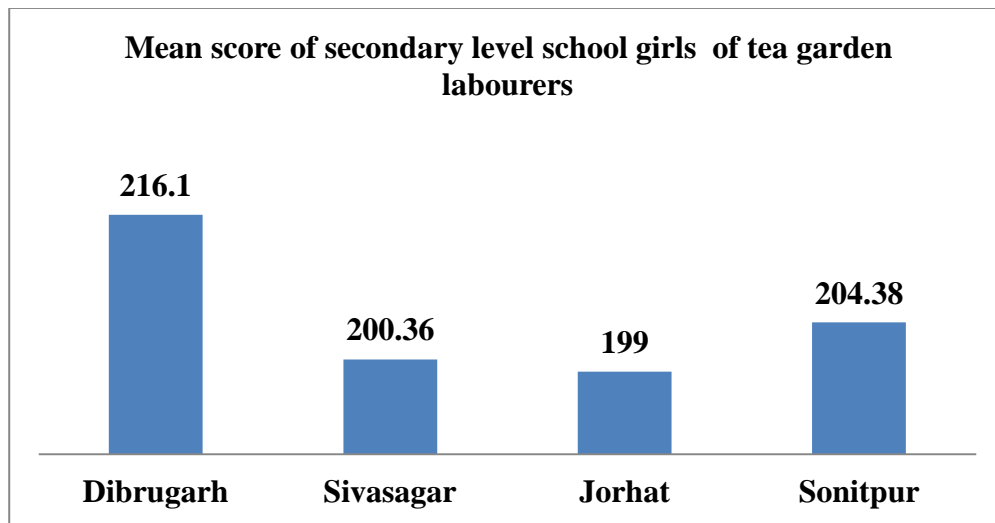| ANOVA						
Study Habit						
		Sum of Squares	df	Mean Square	F	Sig.
Study habit of Boys	Between Groups	8675.830	3	2891.943	3.134	.025
	Within Groups	457698.448	496	922.779		
	Total	466374.278	499			

Interpretation: In **table 4.38.1**, the ANOVA results show that the sums of squares between groups and within groups are8675.830 and 457698.448respectively and the mean squares are 2891.943and 922.779. Here the F value ratio is 3.134 with p value (.025) is found to be less than 0.05 level of significance. So the null hypothesis "there is no significant difference between secondary level school boys of tea garden labourersamong the four districts with regards to study habit" is rejected and thus proved there is no significant difference between boys in regards to their study habits among the four districts.

$H_{020:}$ **There is no significant difference between secondary level school girls of tea garden labourers among the four districts with regards to study habit**

Table 4.39: Descriptive of mean scores between secondary level school girls of tea garden labourers among the four districts with regards to study habit

	Districts	Girls	Mean	SD
Study habit	**Dibrugarh**	**125**	**216.1**	**40.0**
	Sivasagar	**125**	**200.36**	**31.0**
	Jorhat	**125**	**199.00**	**28.9**
	Sonitpur	**125**	**204.38**	**31.1**
	Total	**500**	**204.97**	**33.6**

Figure 4.24 Representing the of mean score values of secondary level school girls of tea garden labourers among the four districts with regards to study habit

In the above **table 4.39 and figure 4.24**, the results of the ANOVA analysis is depicted, where, the categorical variable is the districts of the secondary level school girls of tea garden labourers of Assam and the dependent variable is the Study Habit. Through the mean scores derived it can be observed that the study habit score of girls is highest in Dibrugarh followed by Sonitpur .Here the mean score of Jorhat and Sivasagar girls is found to be very minimal in comparison to other three districts.

Table 4.39.1: ANOVA results of secondary level school girls of tea garden labourers among the four districts with regards to study habit

ANOVA						
Study Habit						
Gender		Sum of Squares	df	Mean Square	F	Sig.
Girls	Between Groups	22673.718	3	7557.906	6.903	.000
	Within Groups	543076.832	496	1094.913		
	Total	565750.550	499			

Interpretation: In **table 4.39.1,** The ANOVA results show that the sums of squares between groups and within groups are22673.718 and 543076.832 respectively and the mean squares are 7557.906 and 1094.913. Here the F value ratio is 6.903 with p value (.000) found to be less than 0.05 level. So the null hypothesis "there is no significant difference between secondary level school girls of tea garden labourersamong the four districts with regards to study habit"is rejected.There is a significant difference between girls in regards to their study habits among the four districts.

- **Relationship between study habit and academic achievement of secondary level school children of tea garden labourers of Assam.**

To study the relationship between study habit and academic achievement of secondary level school children the null hypotheses were formulated

$H_{021:}$ **There is no significant relationship between the study habit and academic achievement of secondary level school children of tea garden labourers of Assam.**
Table 4.40: Showing the coefficient of correlation of study habit and academic achievement of secondary level school children of tea garden labourers of Assam.

Variable	N	r	P value	Interpretation
Study Habit Academic Achievement	1000	.736	0.001	Significant

Interpretation:Table 4.40, shows the relationship between study habit and academic achievement of the secondary level school children of tea garden labourers of Assam.

From the result in table 40, it is revealed that study habit and academic achievement is positively correlated with r value .736 and p value 0.001which is significant at 5% level. Therefore, the null hypothesis "there is no significant relationship between the study habit and academic achievement of secondary level school children of tea garden labourers of Assam" is rejected and this shows that there is a significant relationship between study habit and academic achievement of secondary level school children of tea garden labourers of Assam. Hence, it can be interpreted that study habit has positive influence on the academic achievement of boys and girls.

H_{022}: **There is no significant relationship between study habit and academic achievement of secondary level school of tea garden labourers on the basis of gender**

Table 4.41: Showing the coefficient of correlation between study habit and academic achievement of secondary level school boys of tea garden labourers of Assam.

Gender	Variables	N	r	Sig.	Interpretation
Boys	Study Habit	500	.748	.000	Significant
	Academic Achievement				

Interpretation: The result presented in **Table 4.41**,shows that the relationship between study habit and academic achievement of boys. The table reveals that study habit and academic achievement is positively correlated with r value .748 and p value 0.00 which is significant at 5% level. Therefore, the null hypothesis, "there is no significant relationship between study habit and academic achievement of secondary level school boys of tea garden labourers" is rejected. Hence, this shows that there is a significant relationship between study habit and academic achievement of secondary level boys of tea garden labourers and it can be interpreted that study habit has an influence on the academic achievement ofboys.

Table 4.42: Showing the coefficient of correlation between study habit and academic achievement of secondary level school girls of tea garden labourers of Assam.

Gender	Variable	N	r	Sig.	Interpretation
Girls	**Study Habit**	**500**	**.705**	**.000**	**Significant**
	Academic Achievement				

Interpretation: The result presented in **Table 4.42,** shows that the relationship between study habit and academic achievement among girls. The table reveals that study habit and academic achievement is positively correlated with r value .705 and p value is 0.00 which is significant at the 5% level. Therefore, the null hypothesis"there is no significant relationship between study habit and academic achievement of secondary level girls of tea garden labourers" is rejected and this shows that there is a significant relationship between study habit and academic achievement of secondary level school girls of tea garden labourers too.Hence there is a positive correlation between study habit and academic achievement ofgirls.