CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

4.1.0: Introduction

4.2.0: Descriptive Analysis

4.3.0: Relational Analysis

4.4.0: Differential Analysis
4.1.0: INTRODUCTION

It may be fair to say that research consists in general of two large steps. The first step is gathering of data and the second one is analysis of data. The data collected through the use of valid tools are yet but raw. They need to be classified systematized and organized before they can serve any worthwhile purpose.

The investigator made a checking of gathered data for accuracy, utility and completeness. The data are classified into different categories for use. The data collected for this investigation has been analyzed by using different statistical techniques like r-test, t-test, Central Tendencies and Analysis of Variance test on the basis of the results necessary interpretation is given.

4.2.0: DESCRIPTIVE ANALYSIS

In order to verify the correctness of the sample selected for the investigation, the mean, median and mode were calculated. The sample is said to be symmetrical or distributed even, when the mean, median and mode fall in the same point.

Mental Ability:

Table No: 4.1
Distribution of Mental ability scores

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>54.80</td>
<td>54.70</td>
<td>54.50</td>
<td>16.60</td>
<td>0.018</td>
<td>0.296</td>
</tr>
</tbody>
</table>
From the above Table, it is found that the mean scores of mental ability is 54.80, the median is 54.70 and the mode is 54.50. In this distribution the mean, the median and the mode fall more or less at the same point, therefore it is inferred that the sample distribution is found to be symmetrical.

The skewness for the mental ability is 0.018. Here are the sample distribution is found to be skewed positively the skewness of the distribution is very meager because the mean, the median and the mode are more or less same. The greater gap between the mean and the median are greater than skewness.

In this distribution the kurtosis value is 0.296. Here the kurtosis value is seen to be greater than the Table value 0.263. Therefore the sample distribution is found to be plati kurtic.

Scientific Attitude:

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.4</td>
<td>73.8</td>
<td>74.6</td>
<td>7.8</td>
<td>-0.154</td>
<td>0.2512</td>
</tr>
</tbody>
</table>

From the above Table, it is found that the mean scores of scientific attitude is 73.4, the median is 73.8 and the mode is 74.6. In this distribution the mean, the median and the mode fall more or less at the same point. Therefore the sample distribution is found to be symmetrical. The skewness for the scientific attitude is -0.154. Here the sample distribution is found to be skewed negatively. In this distribution the kurtosis value is 0.2512. Here the kurtosis value is seemed to be less than the Table value 0.263. Therefore the sample distribution is found to be lepta kurtic.
Graph 1
Frequency Polygon showing the Mental ability of X standard students studying in Coimbatore district

Graph 2
Frequency Polygon showing the Scientific attitude of X standard students studying in Coimbatore district
**Achievement Motivation:**

Table No: 4.3.

Distribution of Achievement motivation Scores

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>73.0</td>
<td>73.7</td>
<td>75.1</td>
<td>10.2</td>
<td>-0.21</td>
<td>0.244</td>
</tr>
</tbody>
</table>

From the above Table, it is found that the mean scores of achievement motivation is 73.0, the median is 73.7 and the mode is 75.1. The skewness for the Achievement motivation is -0.21. Here are the sample distribution is found to be skewed negatively. In this distribution the kurtosis value is 0.244. Here the kurtosis value seen to be less than the Table value 0.263. Therefore the sample distribution is found to be lepta kurtic.

**Achievement in science:**

Table No: 4.4

Distribution of Achievement in Science Scores

<table>
<thead>
<tr>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>S.D.</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>41.8</td>
<td>38.9</td>
<td>33.1</td>
<td>17.3</td>
<td>0.51</td>
<td>0.547</td>
</tr>
</tbody>
</table>

From the above Table, it is found that the mean scores of Achievement in science is 41.8, the median is 38.9 and the mode is 33.1. The skewness for the achievement motivation is 0.51. Here are the sample distribution is found to be skewed positively. In this distribution the kurtosis value is 0.547. Here the kurtosis value seen to be greater than the Table value 0.263. Therefore the sample distribution is found to be plati kurtic.
Graph 3
Frequency Polygon showing the Achievement motivation of X standard students studying in Coimbatore district

Graph 4
Frequency Polygon showing the Achievement in science of X standard students studying in Coimbatore district
4.3.0: RELATIONAL ANALYSIS

The Co-efficient of correlation is used to express the degree of relationship quantitatively between the two variables. It is a kind of ratio, which expresses the extent to which changes in one variable are accompanied by changes in the other variable. The co-efficient of correlation was studied by using Pearson’s product moment method.

Hypothesis No: 1

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Hill area schools.

Here the calculated $r$-value is 0.143 at 0.05 level, whereas the Table value is found to be 0.138 for 200 degrees of freedom. The obtained $r$-value is positive and significant at 0.05 levels, this shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Hill area schools. Hence null hypothesis is rejected.

Hypothesis No: 2

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Hill area schools.

Here the calculated $r$-value is 0.270 at 0.01 level, whereas the Table value is found to be 0.181 for 210 degrees of freedom. The obtained $r$-value is positive and significant at 0.01 levels, this shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Hill area schools. Hence null hypothesis is rejected.
Hypothesis No: 3

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Hill area schools.

Here the calculated r-value is 0.168 at 0.05 level, whereas the Table value is found to be 0.138 for 200 degrees of freedom. The obtained r-value is positive and significant at 0.05 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Hill area schools. Hence null hypothesis is rejected.

Hypothesis No: 4

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Corporation schools.

Here the calculated r-value is 0.183 at 0.01 level, whereas the Table value is found to be 0.181 for 216 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Corporation schools. Hence null hypothesis is rejected.

Hypothesis No: 5

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Municipal schools.

Here the calculated r-value is 0.10 7 at 0.05 level, whereas the Table value is found to be 0.138 for 206 degrees of freedom. The obtained r-value is positive and insignificant. This shows that there is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Municipal schools. Hence null hypothesis is accepted.
Hypothesis No: 6

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Aided schools.

Here the calculated r-value is 0.204 at 0.01 level, where as the Table value is found to be 0.148 for 298 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Aided schools. Hence null hypothesis is rejected.

Hypothesis No: 7

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Government schools.

Here the calculated r-value is 0.175 at 0.01 level, where as the Table value is found to be 0.115 for 666 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Government schools. Hence null hypothesis is rejected.

Hypothesis No: 8

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Rural area schools.

Here the calculated r-value is 0.174 at 0.01 level, where as the Table value is found to be 0.115 for 625 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Rural area schools. Hence null hypothesis is rejected.
Hypothesis No: 9

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Urban area schools.

Here the calculated r-value is 0.196 at 0.01 level, where as the Table value is found to be 0.115 for 563 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Urban area schools. Hence null hypothesis is rejected.

Hypothesis No: 10

There is no significant relationship between achievement motivation and scientific attitude of X standard students studying in Boys schools.

Here the calculated r-value is 0.174 at 0.01 level, where as the Table value is found to be 0.148 for 376 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Boys schools. Hence null hypothesis is rejected.

Hypothesis No: 11

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Girls schools.

Here the calculated r-value is 0.210 at 0.01 level, where as the Table value is found to be 0.148 for 384 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Girls schools. Hence null hypothesis is rejected.
Hypothesis No: 12

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Mixed schools.

Here the calculated r-value is 0.19 3 at 0.01 level, where as the Table value is found to be 0.115 for 628 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Mixed schools. Hence null hypothesis is rejected.

Hypothesis No: 13

There is no significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Coimbatore district.

Here the calculated r-value is 0.185 at 0.01 level, where as the Table value is found to be 0.181 for 1392 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard students studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 14

There is no significant relationship between Achievement motivation and Scientific attitude of X standard boys studying in Coimbatore district.

Here the calculated r-value is 0.170 at 0.01 level, whereas the Table value is found to be 0.115 for 686 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard boys studying in Coimbatore district. Hence null hypothesis is rejected.
Hypothesis No: 15.

There is no significant relationship between Achievement motivation and Scientific attitude of X standard girls studying in Coimbatore district.

Here the calculated r-value is 0.191 at 0.01 level, whereas the Table value is found to be 0.115 for 704 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Scientific attitude of X standard girls studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 16.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Municipal schools.

Here the calculated r-value is 0.135 at 0.05 level, whereas the Table value is found to be 0.138 for 206 degrees of freedom. The obtained r-value is positive and insignificant. This shows that there is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Municipal schools. Hence null hypothesis is accepted.

Hypothesis No: 17.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Corporation schools.

Here the calculated r-value is 0.189 at 0.01 level, whereas the Table value is found to be 0.181 for 216 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Corporation schools. Hence null hypothesis is rejected.
Hypothesis No: 18.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Aided schools.

Here the calculated r-value is 0.194 at 0.05 level, whereas the Table value is found to be 0.113 for 298 degrees of freedom. The obtained r-value is positive and significant at 0.05 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Aided schools. Hence null hypothesis is rejected.

Hypothesis No: 19.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Government schools.

Here the calculated r-value is 0.223 at 0.01 level, whereas the Table value is found to be 0.115 for 666 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Government schools. Hence null hypothesis is rejected.

Hypothesis No: 20.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Rural area schools.

Here the calculated r-value is 0.185 at 0.01 level, whereas the Table value is found to be 0.115 for 625 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Rural area schools. Hence null hypothesis is rejected.
Hypothesis No: 21.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Urban area schools.

Here the calculated r-value is 0.235 at 0.01 level, whereas the Table value is found to be 0.115 for 563 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Urban area schools. Hence null hypothesis is rejected.

Hypothesis No: 22.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Boys schools.

Here the calculated r-value is 0.245 at 0.01 level, whereas the Table value is found to be 0.148 for 376 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Boys schools. Hence null hypothesis is rejected.

Hypothesis No: 23.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Girls schools.

Here the calculated r-value is 0.155 at 0.05 level, whereas the Table value is found to be 0.113 for 384 degrees of freedom. The obtained r-value is positive and significant at 0.05 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Girls schools. Hence null hypothesis is rejected.
Hypothesis No: 24.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Mixed schools.

Here the calculated r-value is 0.232 at 0.01 level, whereas the Table value is found to be 0.115 for 628 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Mixed schools. Hence null hypothesis is rejected.

Hypothesis No: 25.

There is no significant relationship between Achievement motivation and Mental ability of X standard boys studying in Coimbatore district.

Here the calculated r-value is 0.231 at 0.01 level, whereas the Table value is found to be 0.115 for 686 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard boys studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 26.

There is no significant relationship between Achievement motivation and Mental ability of X standard girls studying in Coimbatore district.

Here the calculated r-value is 0.180 at 0.01 level, whereas the Table value is found to be 0.115 for 704 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard girls studying in Coimbatore district. Hence null hypothesis is rejected.
Hypothesis No: 27.

There is no significant relationship between Achievement motivation and Mental ability of X standard students studying in Coimbatore district.

Here the calculated $r$-value is 0.216 at 0.01 level, whereas the Table value is found to be 0.081 for 1392 degrees of freedom. The obtained $r$-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Mental ability of X standard students studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 28.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Municipal schools.

Here the calculated $r$-value is 0.407 at 0.01 level, whereas the Table value is found to be 0.181 for 206 degrees of freedom. The obtained $r$-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Municipal schools. Hence null hypothesis is rejected.

Hypothesis No: 29.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Corporation schools.

Here the calculated $r$-value is 0.345 at 0.01 level, whereas the Table value is found to be 0.181 for 216 degrees of freedom. The obtained $r$-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Corporation schools. Hence null hypothesis is rejected.
Hypothesis No: 30.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Aided schools.

Here the calculated r-value is 0.542 at 0.01 level, whereas the Table value is found to be 0.181 at 298 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Aided schools. Hence null hypothesis is rejected.

Hypothesis No: 31.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Government schools.

Here the calculated r-value is 0.303 at 0.01 level, whereas the Table value is found to be 0.115 at 666 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Government schools. Hence null hypothesis is rejected.

Hypothesis No: 32.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Rural area schools.

Here the calculated r-value is 0.399 at 0.01 level, whereas the Table value is found to be 0.115 at 625 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Rural area schools. Hence null hypothesis is rejected.
Hypothesis No: 33.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Urban area schools.

Here the calculated r-value is 0.434 at 0.01 level, whereas the Table value is found to be 0.115 at 563 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Urban area schools. Hence null hypothesis is rejected.

Hypothesis No: 34.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Boys schools.

Here the calculated r-value is 0.353 at 0.01 level, whereas the Table value is found to be 0.148 at 376 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Boys schools. Hence null hypothesis is rejected.

Hypothesis No: 35.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Girls schools.

Here the calculated r-value is 0.274 at 0.01 level, whereas the Table value is found to be 0.148 at 384 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Girls schools. Hence null hypothesis is rejected.
Hypothesis No: 36.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Mixed schools.

Here the calculated r-value is 0.487 at 0.01 level, whereas the Table value is found to be 0.115 at 628 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Mixed schools. Hence null hypothesis is rejected.

Hypothesis No: 37.

There is no significant relationship between Scientific attitude and Mental ability of X standard boys studying in Coimbatore district.

Here the calculated r-value is 0.33 at 0.01 level, whereas the Table value is found to be 0.115 at 686 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard boys studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 38.

There is no significant relationship between Scientific attitude and Mental ability of X standard girls studying in Coimbatore district.

Here the calculated r-value is 0.446 at 0.01 level, whereas the Table value is found to be 0.115 at 704 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard girls studying in Coimbatore district. Hence null hypothesis is rejected.
Hypothesis No: 39.

There is no significant relationship between Scientific attitude and Mental ability of X standard students studying in Coimbatore district.

Here the calculated r-value is 0.396 at 0.01 level, whereas the Table value is found to be 0.081 at 1392 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Mental ability of X standard students studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 40.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Municipal schools.

Here the calculated r-value is 0.313 at 0.01 level, whereas the Table value is found to be 0.181 for 206 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Municipal schools. Hence null hypothesis is rejected.

Hypothesis No: 41.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Corporation schools.

Here the calculated r-value is 0.353 at 0.01 level, whereas the Table value is found to be 0.181 for 216 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Corporation schools. Hence null hypothesis is rejected.
Hypothesis No: 42.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Aided schools.

Here the calculated r-value is 0.333 at 0.01 level, whereas the Table value is found to be 0.181 at 298 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between scientific attitude and Achievement in science of X standard students studying in Aided schools. Hence null hypothesis is rejected.

Hypothesis No: 43.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Government schools.

Here the calculated r-value is 0.250 at 0.01 level, whereas the Table value is found to be 0.115 at 666 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Government schools. Hence null hypothesis is rejected.

Hypothesis No: 44.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Rural area schools.

Here the calculated r-value is 0.304 at 0.01 level, whereas the Table value is found to be 0.115 at 625 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Rural area schools. Hence null hypothesis is rejected.
Hypothesis No: 45.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Urban area schools.

Here the calculated r-value is 0.343 at 0.01 level, whereas the Table value is found to be 0.115 at 563 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Urban area schools. Hence null hypothesis is rejected.

Hypothesis No: 46.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Boys schools.

Here the calculated r-value is 0.300 at 0.01 level, whereas the Table value is found to be 0.148 at 376 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Boys schools. Hence null hypothesis is rejected.

Hypothesis No: 47.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Girls schools.

Here the calculated r-value is 0.329 at 0.01 level, whereas the Table value is found to be 0.148 at 384 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Girls schools. Hence null hypothesis is rejected.
Hypothesis No: 48.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Mixed schools.

Here the calculated \( r \)-value is 0.288 at 0.01 level, whereas the Table value is found to be 0.115 at 628 degrees of freedom. The obtained \( r \)-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Mixed schools. Hence null hypothesis is rejected.

Hypothesis No: 49.

There is no significant relationship between Scientific attitude and Achievement in science of X standard boys studying in Coimbatore district.

Here the calculated \( r \)-value is 0.275 at 0.01 level, whereas the Table value is found to be 0.115 at 686 degrees of freedom. The obtained \( r \)-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard boys studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 50.

There is no significant relationship between Scientific attitude and Achievement in science of X standard girls studying in Coimbatore district.

Here the calculated \( r \)-value is 0.324 at 0.01 level, whereas the Table value is found to be 0.115 at 704 degrees of freedom. The obtained \( r \)-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard girls studying in Coimbatore district. Hence null hypothesis is rejected.
Hypothesis No: 51.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Coimbatore district.

Here the calculated r-value is 0.308 at 0.01 level, whereas the Table value is found to be 0.081 at 1392 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 52.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Municipal schools.

Here the calculated r-value is 0.214 at 0.01 level, whereas the Table value is found to be 0.181 for 206 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Municipal schools. Hence null hypothesis is rejected.

Hypothesis No: 53.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Corporation schools.

Here the calculated r-value is 0.217 at 0.01 level, whereas the Table value is found to be 0.181 for 216 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Corporation schools. Hence null hypothesis is rejected.
Hypothesis No: 54.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Aided schools.

Here the calculated r-value is 0.180 at 0.05 level, whereas the Table value is found to be 0.113 at 298 degrees of freedom. The obtained r-value is positive and significant at 0.05 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Aided schools. Hence null hypothesis is rejected.

Hypothesis No: 55.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Government schools.

Here the calculated r-value is 0.187 at 0.01 level, whereas the Table value is found to be 0.115 at 666 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Government schools. Hence null hypothesis is rejected.

Hypothesis No: 56.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Rural area schools.

Here the calculated r-value is 0.158 at 0.01 level, whereas the Table value is found to be 0.115 at 625 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Rural area schools. Hence null hypothesis is rejected.
Hypothesis No: 57.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Urban area schools.

Here the calculated r-value is 0.257 at 0.01 level, whereas the Table value is found to be 0.115 at 563 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Urban area schools. Hence null hypothesis is rejected.

Hypothesis No: 58.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Boys schools.

Here the calculated r-value is 0.237 at 0.01 level, whereas the Table value is found to be 0.148 at 376 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Boys schools. Hence null hypothesis is rejected.

Hypothesis No: 59.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Girls schools.

Here the calculated r-value is 0.200 at 0.01 level, whereas the Table value is found to be 0.148 at 384 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Girls schools. Hence null hypothesis is rejected.
Hypothesis No: 60.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Mixed schools.

Here the calculated r-value is 0.211 at 0.01 level, whereas the Table value is found to be 0.115 at 628 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Mixed schools. Hence null hypothesis is rejected.

Hypothesis No: 61.

There is no significant relationship between Achievement motivation and Achievement in science of X standard Boys studying in Coimbatore district.

Here the calculated r-value is 0.180 at 0.01 level, whereas the Table value is found to be 0.115 at 686 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard Boys studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 62.

There is no significant relationship between Achievement motivation and Achievement in science of X standard Girls studying in Coimbatore district.

Here the calculated r-value is 0.213 at 0.01 level, whereas the Table value is found to be 0.115 at 704 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard Girls studying in Coimbatore district. Hence null hypothesis is rejected.
Hypothesis No: 63.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Coimbatore district.

Here the calculated r-value is 0.208 at 0.01 level, whereas the Table value is found to be 0.081 at 1392 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 64.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Municipal schools.

Here the calculated r-value is 0.357 at 0.01 level, whereas the Table value is found to be 0.181 for 206 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Municipal schools. Hence null hypothesis is rejected.

Hypothesis No: 65.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Corporation schools.

Here the calculated r-value is 0.397 at 0.01 level, whereas the Table value is found to be 0.181 for 216 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Corporation schools. Hence null hypothesis is rejected.
Hypothesis No: 66.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Aided schools.

Here the calculated $r$-value is 0.282 at 0.01 level, whereas the Table value is found to be 0.181 at 298 degrees of freedom. The obtained $r$-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Aided schools. Hence null hypothesis is rejected.

Hypothesis No: 67.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Government schools.

Here the calculated $r$-value is 0.478 at 0.01 level, whereas the Table value is found to be 0.115 at 666 degrees of freedom. The obtained $r$-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Government schools. Hence null hypothesis is rejected.

Hypothesis No: 68.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Rural area schools.

Here the calculated $r$-value is 0.434 at 0.01 level, whereas the Table value is found to be 0.115 at 625 degrees of freedom. The obtained $r$-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Rural area schools. Hence null hypothesis is rejected.
Hypothesis No: 69.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Urban area schools.

Here the calculated r-value is 0.364 at 0.01 level, whereas the Table value is found to be 0.115 at 563 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Urban area schools. Hence null hypothesis is rejected.

Hypothesis No: 70.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Boys schools.

Here the calculated r-value is 0.440 at 0.01 level, whereas the Table value is found to be 0.148 at 376 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Boys schools. Hence null hypothesis is rejected.

Hypothesis No: 71.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Girls schools.

Here the calculated r-value is 0.429 at 0.01 level, whereas the Table value is found to be 0.148 at 384 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Girls schools. Hence null hypothesis is rejected.
Hypothesis No: 72.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Mixed schools.

Here the calculated r-value is 0.413 at 0.01 level, whereas the Table value is found to be 0.115 at 628 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Mixed schools. Hence null hypothesis is rejected.

Hypothesis No: 73.

There is no significant relationship between Mental ability and Achievement in science of X standard Boys studying in Coimbatore district.

Here the calculated r-value is 0.415 at 0.01 level, whereas the Table value is found to be 0.115 at 686 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a significant relationship between Mental ability and Achievement in science of X standard Boys studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 74.

There is no significant relationship between Mental ability and Achievement in science of X standard Girls studying in Coimbatore district.

Here the calculated r-value is 0.412 at 0.01 level, whereas the Table value is found to be 0.115 at 704 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard Girls studying in Coimbatore district. Hence null hypothesis is rejected.
Hypothesis No: 75.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Coimbatore district.

Here the calculated r-value is 0.426 at 0.01 level, whereas the Table value is found to be 0.081 at 1392 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Coimbatore district. Hence null hypothesis is rejected.

Hypothesis No: 76.

There is no significant relationship between Achievement motivation and Achievement in science of X standard students studying in Hill area schools.

Here the calculated r-value is 0.154 at 0.05 level, whereas the Table value is found to be 0.138 for 200 degrees of freedom. The obtained r-value is positive and significant at 0.05 level. This shows that there is a positive significant relationship between Achievement motivation and Achievement in science of X standard students studying in Hill area schools. Hence null hypothesis is rejected.

Hypothesis No: 77.

There is no significant relationship between Scientific attitude and Achievement in science of X standard students studying in Hill area schools.

Here the calculated r-value is 0.281 at 0.01 level, whereas the Table value is found to be 0.181 for 210 degrees of freedom. The obtained r-value is positive and significant at 0.01 level. This shows that there is a positive significant relationship between Scientific attitude and Achievement in science of X standard students studying in Hill area schools. Hence null hypothesis is rejected.
Hypothesis No: 78.

There is no significant relationship between Mental ability and Achievement in science of X standard students studying in Hill area schools.

Here the calculated r-value is 0.421 at 0.05 level, whereas the Table value is found to be 0.138 for 200 degrees of freedom. The obtained r-value is positive and significant at 0.05 level. This shows that there is a positive significant relationship between Mental ability and Achievement in science of X standard students studying in Hill area schools. Hence null hypothesis is rejected.

4.4.0: DIFFERENTIAL ANALYSIS

This section deals with the results of the differential statistical analysis of the scores on Achievement motivation, Scientific attitude, Mental ability and Achievement in science.

The investigator selected the variables for the present investigation is mentioned below.

1. Location (Rural, Urban, Hill area)
2. Sex (Boys, Girls)
3. Type of Management of Schools (Government, Aided, Municipality, Corporation)
4. Type of schools (Boys, Girls, Mixed)

To find out whether there exists any significant difference between different variables, the investigator used t-test.

ANOVA is an another statistical technique which is a very useful practical method of testing the significance of difference among three subgroups. It is a wider application as compared to t-test.
Hypothesis No: 79.

There is no significant difference among the X standard students studying in Government, Aided, Municipal and Corporation schools in respect of Achievement motivation.

Table No: 4.5.

Analysis of Variance of Achievement motivation scores of Government, Aided, Municipal and Corporation school students.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>Sum of squares</th>
<th>Means square</th>
<th>F - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>2477</td>
<td>825.7</td>
<td>8.51</td>
</tr>
<tr>
<td>Within groups</td>
<td>1390</td>
<td>134828</td>
<td>97.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1393</td>
<td>137303</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is found that the F - value is 8.51. The calculated F - value 8.51 is greater than the Table value 3.80 at 0.01 level. Hence it is found to be significant.

Conclusion:

The X standard students studying in Government, Aided, Municipal and Corporation schools differ in their Achievement motivation.
Hypothesis No. 80

There is no significant difference among the X standard students studying in Government, Aided, Municipal and Corporation schools in respect of Scientific attitude.

Table No: 4.6

Analysis of Variance of Scientific attitude scores of Government, Aided, Municipal and Corporation school students.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>1177</td>
<td>392.3</td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>1390</td>
<td>71281</td>
<td>51.3</td>
<td>7.65</td>
</tr>
<tr>
<td>Total</td>
<td>1393</td>
<td>72458</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is found that the F - value is 7.65. The calculated F - value 7.65 is greater than the Table value 3.80 at 0.01 level. Hence it is found to be significant.

Conclusion:

The X standard students studying in Government, Aided, Municipal and Corporation schools differ in their Scientific attitude.
Graph 5
Bar Diagram showing the Mean value of Achievement motivation of X standard students of Government, Aided, Municipal and Corporation schools in Coimbatore district

Graph 6
Bar Diagram showing the Mean value of Scientific attitude of X standard students of Government, Aided, Municipal and Corporation schools in Coimbatore district
Hypothesis No: 81.

There is no significant difference among the X standard students studying in Government, Aided, Municipal and Corporation schools in respect of Mental ability.

Table No: 4.7

Analysis of Variance of Mental ability scores of Government, Aided, Municipal and Corporation school students.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>28159</td>
<td>9386.3</td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>1390</td>
<td>342090</td>
<td>246</td>
<td>38.2</td>
</tr>
<tr>
<td>Total</td>
<td>1393</td>
<td>370249</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is found that the F - value is 38.2. The calculated F - value 38.2 is greater than the Table value 3.80 at 0.01 level. Hence it is found to be significant.

Conclusion:

The X standard students studying in Government, Aided, Municipal and Corporation schools differ in their Mental ability.
Hypothesis No: 82.

There is no significant difference among the X standard students studying in Government, Aided, Municipal and Corporation schools in respect of Achievement in science.

Table No: 4.8

Analysis of Variance of Achievement in science scores of Government, Aided, Municipal and Corporation school students.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>3</td>
<td>10780</td>
<td>3593.3</td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>1390</td>
<td>387103</td>
<td>278.5</td>
<td>12.9</td>
</tr>
<tr>
<td>Total</td>
<td>1393</td>
<td>397883</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is found that the F-value is 12.9. The calculated F-value 12.9 is greater than the Table value 3.80 at 0.01 level. Hence it is found to be significant.

Conclusion:

The X standard students studying in Government, Aided, Municipal and Corporation schools differ in their Achievement in science.
Graph 7

Bar Diagram showing the Mean value of Mental ability of X standard students of Government, Aided, Municipal and Corporation schools in Coimbatore district

Graph 8

Bar Diagram showing the Mean value of Achievement in science of X standard students of Government, Aided, Municipal and Corporation schools in Coimbatore district
Hypothesis No: 83.

There is no significant difference among the X standard students studying in Rural, Urban and Hill area schools in respect of Achievement motivation.

Table No: 4.9

Analysis of Variance of Achievement motivation scores of Rural, Urban and Hill area school students.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>1189.4</td>
<td>594.7</td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>1391</td>
<td>136115</td>
<td>97.9</td>
<td>6.08</td>
</tr>
<tr>
<td>Total</td>
<td>1393</td>
<td>137304.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is found that the F - value is 6.08. The calculated F - value 6.08 is greater than the Table value 3.80 at 0.01 level. Hence it is found to be significant.

Conclusion:

The X standard students studying in Rural, Urban and Hill area schools differ in their Achievement motivation.
Hypothesis No: 84.

There is no significant difference among the X standard students studying in Rural, Urban and Hill area schools in respect of Scientific attitude.

Table No: 4.10

Analysis of Variance of Scientific attitude scores of Rural, Urban and Hill area school students.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>432.3</td>
<td>216.2</td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>1391</td>
<td>72025.7</td>
<td>51.8</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>1393</td>
<td>72458</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is found that the F - value is 4.2. The calculated F-value 4.2 is greater than the Table value 3.80 at 0.01 level. Hence it is found to be significant.

Conclusion:

The X standard students studying in Rural, Urban and Hill area schools differ in their Scientific attitude.
Graph 9
Pie Diagram showing the Mean value of Achievement motivation of X standard students of Rural, Urban and Hill area schools in Coimbatore district

Graph 10
Pie Diagram showing the Mean value of Scientific attitude of X standard students of Rural, Urban and Hill area schools in Coimbatore district
Hypothesis No: 85.

There is no significant difference among the X standard students studying in Rural, Urban and Hill area schools in respect of Mental ability.

Table No: 4.11

Analysis of Variance of Mental ability scores of Rural, Urban and Hill area school students.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>21149.5</td>
<td>10574.8</td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>1391</td>
<td>349100</td>
<td>251.0</td>
<td>42.1</td>
</tr>
<tr>
<td>Total</td>
<td>1393</td>
<td>370249.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is found that the F - value is 42.1. The calculated F - value 42.1 is greater than the Table value 3.80 at 0.01 level. Hence it is found to be significant.

Conclusion:

The X standard students studying in Rural, Urban and Hill area schools differ in their Mental ability.
Hypothesis No: 86.

There is no significant difference among the X standard students studying in Rural, Urban and Hill area schools in respect of Achievement in science.

Table No: 4.12
Analysis of Variance of Achievement in science scores of Rural, Urban and Hill area school students.

<table>
<thead>
<tr>
<th>Source of variance</th>
<th>df</th>
<th>Sum of squares</th>
<th>Mean square</th>
<th>F - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>2</td>
<td>20571</td>
<td>10285.5</td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>1391</td>
<td>377311.6</td>
<td>271.3</td>
<td>37.9</td>
</tr>
<tr>
<td>Total</td>
<td>1393</td>
<td>397882.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is found that the F - value is 37.9. The calculated F - value 37.9 is greater than the Table value 3.80 at 0.01 level. Hence It is found to be significant.

Conclusion:

The X standard students studying in Rural, Urban and Hill area schools differ in their Achievement in science.
Graph 11
Pie Diagram showing the Mean value of Mental ability of X standard students of Rural, Urban and Hill area schools in Coimbatore district

Graph 12
Pie Diagram showing the Mean value of Achievement in Science of X standard students of Rural, Urban and Hill area schools in Coimbatore district
Hypothesis No: 87.

There is no significant difference between Government and Aided school students in respect of Achievement motivation.

Table No: 4.13

Mean, S.D. and t-value of Government and Aided school students in respect of Achievement motivation

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>74.27</td>
<td>9.79</td>
<td>2.96</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>76.3</td>
<td>9.89</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.96 is greater than the Table value of 2.59 for df = 966 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Government school students in their Achievement motivation.
Hypothesis No: 88.

There is no significant difference between Government and Aided school students in respect of Scientific attitude.

Table No: 4.14

Mean, S.D. and t-value of Government and Aided school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>72.44</td>
<td>6.67</td>
<td>7.71</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>74.6</td>
<td>7.99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 7.71 is greater than the Table value of 2.59 for df = 966 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Government school students in their Scientific attitude.
Hypothesis No: 89.

There is no significant difference between Government and Aided school students in respect of Mental ability.

Table No: 4.15

Mean, S.D. and t-value of Government and Aided school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>53.12</td>
<td>15.40</td>
<td>9.03</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>63.05</td>
<td>15.92</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 9.03 is greater than the Table value of 2.59 for df = 966 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Government school students in their Mental ability.
Hypothesis No: 90.

There is no significant difference between Government and Aided school students in respect of Achievement in science.

Table No: 4.16

Mean, S.D. and t-value of Government and Aided school students in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>40.71</td>
<td>16.76</td>
<td>4.54</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>46.2</td>
<td>17.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 4.54 is greater than the Table value of 2.59 for df = 966 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Government school students in their Achievement in science.
Hypothesis No: 91.

There is no significant difference between Government and Municipal school students in respect of Achievement motivation.

Table No: 4.17

Mean, S.D. and t-value of Government and Municipal school students in respect of Achievement motivation

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>74.27</td>
<td>9.79</td>
<td>3.64</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>77.02</td>
<td>9.42</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.64 is greater than the Table value of 2.59 for df = 874 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Municipal school students are better than Government school students in their Achievement motivation.
Hypothesis No: 92.

There is no significant difference between Government and Municipal school students in respect of Scientific attitude.

Table No: 4.18

Mean, S.D. and t-value of Government and Municipal school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>72.44</td>
<td>6.67</td>
<td>2.43</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>73.8</td>
<td>7.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.43 is greater than the Table value of 1.96 for df = 874 at 0.05 level. Since the t-value is significant at 0.05 level, the null hypothesis is rejected.

Conclusion:

Municipal school students are better than Government school students in their Scientific attitude.
Hypothesis No: 93.

There is no significant difference between Government and Municipal school students in respect of Mental ability.

Table No: 4.19

Mean, S.D. and t-value of Government and Municipal school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>53.12</td>
<td>15.4</td>
<td>1.29</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>54.63</td>
<td>14.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 1.29 is lesser than the Table value of 2.59 for df = 874 at 0.01 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Both Government and Municipal school students stand at same level in Mental ability.
Hypothesis No: 94.

There is no significant difference between Government and Municipal school students in respect of Achievement in science.

Table No: 4.20

Mean, S.D. and t-value of Government and Municipal school students in respect of Achievement in Science

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>40.71</td>
<td>16.76</td>
<td>1.81</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>42.99</td>
<td>15.57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 1.81 is lesser than the Table value of 1.96 for df = 874 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Both Government and Municipal school students stand at same level in Achievement in science.
Hypothesis No: 95.

There is no significant difference between Government and Corporation school students in respect of Achievement motivation.

Table No: 4.21

Mean, S.D. and t-value of Government and Corporation school students in respect of Achievement Motivation

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>74.27</td>
<td>9.79</td>
<td>1.46</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>73.11</td>
<td>10.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 1.46 is lesser than the Table value of 1.96 for df = 884 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Government and Corporation schools students do not show difference in Achievement motivation.
Hypothesis No: 96.

There is no significant difference between Government and Corporation school students in respect of Scientific attitude.

Table No: 4.22

Mean, S.D. and t-value of Government and Corporation school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>72.44</td>
<td>6.67</td>
<td>0.11</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>72.5</td>
<td>7.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 0.11 is lesser than the Table value of 1.96 for df = 884 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Government and Corporation schools students do not show difference in Scientific attitude.
Hypothesis No: 97.

There is no significant difference between Government and Corporation school students in respect of Mental ability.

Table No: 4.23

Mean, S.D. and t-value of Government and Corporation school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>53.12</td>
<td>15.40</td>
<td>2.68</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>49.61</td>
<td>17.17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.68 is greater than the Table value of 2.59 for df = 884 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Government school students are better than Corporation school students in their Mental ability.
Hypothesis No: 98.

There is no significant difference between Government and Corporation school students in respect of Achievement in science.

Table No: 4.24

Mean, S.D. and t-value of Government and Corporation school students in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government school students</td>
<td>668</td>
<td>40.71</td>
<td>16.76</td>
<td>2.46</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>37.61</td>
<td>15.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.46 is greater than the Table value of 1.96 for df = 884 at 0.05 level. Since the t-value is significant at 0.05 level, the null hypothesis is rejected.

Conclusion:

Government school students are better than Corporation school students in their Achievement in science.
Hypothesis No: 99.

There is no significant difference between Aided and Municipal school students in respect of Achievement motivation.

Table No: 4.25

Mean, S.D. and t-value of Aided and Municipal school students in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>76.3</td>
<td>9.89</td>
<td>0.83</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>77.02</td>
<td>9.42</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 0.83 is lesser than the Table value of 1.96 for df = 506 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Aided and Municipal school students do not show difference in Achievement motivation.
Hypothesis No: 100.

There is no significant difference between Aided and Municipal school students in respect of Scientific attitude.

Table No: 4.26

Mean, S.D. and t-value of Aided and Municipal school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>74.6</td>
<td>7.99</td>
<td>1.18</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>73.8</td>
<td>7.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 1.18 is lesser than the Table value of 1.96 for df = 506 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Aided and Municipal school students stand at the same position in respect of Scientific attitude.
Hypothesis No: 101.

There is no significant difference between Aided and Municipal school students in respect of Mental ability.

Table No: 4.27

Mean, S.D. and t-value of Aided and Municipal school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>63.05</td>
<td>15.92</td>
<td>6.17</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>54.63</td>
<td>14.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 6.17 is greater than the Table value of 2.59 for df = 506 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Municipal school students in their Mental ability.
Hypothesis No: 102.

There is no significant difference between Aided and Municipal school students in respect of Achievement in science.

Table No: 4.28

Mean, S.D. and t-value of Aided and Municipal school students in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>46.2</td>
<td>17.7</td>
<td>2.15</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>42.99</td>
<td>15.57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.15 is greater than the Table value of 1.96 for df = 506 at 0.05 level. Since the t-value is significant at 0.05 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Municipal school students in their Achievement in science.
Hypothesis No: 103.

There is no significant difference between Aided and Corporation school students in respect of Achievement motivation.

Table No: 4.29

Mean, S.D. and t-value of Aided and Corporation school students in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>76.3</td>
<td>9.89</td>
<td>3.54</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>73.11</td>
<td>10.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.54 is greater than the Table value of 2.59 for df = 516 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Corporation school students in their Achievement motivation.
Hypothesis No: 104.

There is no significant difference between Aided and Corporation school students in respect of Scientific attitude.

Table No: 4.30

Mean, S.D. and t-value of Aided and Corporation school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>74.6</td>
<td>7.99</td>
<td>3.09</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>72.5</td>
<td>7.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.09 is greater than the Table value of 2.59 for df = 516 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Corporation school students in their Scientific attitude.
Hypothesis No: 105.

There is no significant difference between Aided and Corporation school students in respect of Mental ability.

Table No: 4.31

Mean, S.D. and t-value of Aided and Corporation school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>63.05</td>
<td>15.92</td>
<td>9.08</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>49.61</td>
<td>17.17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 9.08 is greater than the Table value of 2.59 for df = 516 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Corporation school students in their Mental ability.
Hypothesis No: 106.

There is no significant difference between Aided and Corporation school students in respect of Achievement in science.

Table No: 4.32

Mean, S.D. and t-value of Aided and Corporation school students in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aided school students</td>
<td>300</td>
<td>46.2</td>
<td>17.7</td>
<td>5.8</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>37.61</td>
<td>15.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 5.8 is greater than the Table value of 2.59 for df = 516 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Aided school students are better than Corporation school students in their Achievement in science.
Hypothesis No: 107.

There is no significant difference between Municipal and Corporation school students in respect of Mental ability.

Table No: 4.33

Mean, S.D. and t-value of Municipal and Corporation school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>54.63</td>
<td>14.5</td>
<td>3.26</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>49.61</td>
<td>17.17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.26 is greater than the Table value of 2.59 for df = 424 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Municipal school students are better than Corporation school students in their Mental ability.
Hypothesis No: 108.

There is no significant difference between Municipal and Corporation school students in respect of Achievement in science.

Table No: 4.34

Mean, S.D. and t-value of Municipal and Corporation school students in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>42.99</td>
<td>15.57</td>
<td>3.52</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>37.61</td>
<td>15.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.52 is greater than the Table value of 2.59 for df = 424 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Municipal school students are better than Corporation school students in their Achievement in science.
Hypothesis No: 109.

There is no significant difference between Municipal and Corporation school students in respect of Achievement motivation.

Table No: 4.35

Mean, S.D. and t-value of Municipal and Corporation school students in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>77.02</td>
<td>9.42</td>
<td>4.09</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>73.11</td>
<td>10.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 4.09 is greater than the Table value of 2.59 for df = 424 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Municipal school students are better than Corporation school students in their Achievement motivation.
Hypothesis No: 110.

There is no significant difference between Municipal and Corporation school students in respect of Scientific attitude.

Table No: 4.36
Mean, S.D. and t-value of Municipal and Corporation school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of Management of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipal school students</td>
<td>208</td>
<td>73.80</td>
<td>7.18</td>
<td>1.83</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Corporation school students</td>
<td>218</td>
<td>72.5</td>
<td>7.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 1.83 is lesser than the Table value of 1.96 for df = 424 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Municipal and Corporation school students do not differ in their Scientific attitude.
Hypothesis No: 111.

There is no significant difference between Rural and Urban area school students in respect of Achievement motivation.

Table No: 4.37
Mean, S.D. and t-value of Rural and Urban area school students in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural area school students</td>
<td>627</td>
<td>75.16</td>
<td>9.99</td>
<td>0.56</td>
<td>Insignificant at 0.05 level</td>
</tr>
<tr>
<td>Urban area school students</td>
<td>565</td>
<td>75.48</td>
<td>9.72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 0.56 is lesser than the Table value of 1.96 for df = 1190 at 0.05 level. Since the t-value is insignificant at 0.05 level, the null hypothesis is accepted.

Conclusion:

Rural and Urban area school students do not differ in Achievement motivation.
Hypothesis No: 112.

There is no significant difference between Rural and Urban area school students in respect of Scientific attitude.

Table No: 4.38

Mean, S.D. and t-value of Rural and Urban area school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural area school students</td>
<td>627</td>
<td>72.70</td>
<td>6.82</td>
<td>2.584</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Urban area school students</td>
<td>565</td>
<td>73.79</td>
<td>7.66</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.584 is greater than the Table value of 2.58 for df = 1190 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Urban area school students are better than Rural area school students in their Scientific attitude.
Hypothesis No: 113.

There is no significant difference between Rural and Urban area school students in respect of Achievement in science.

Table No: 4.39

Mean, S.D. and t-value of Rural and Urban area school students in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural area school students</td>
<td>627</td>
<td>44.77</td>
<td>17.41</td>
<td>3.34</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Urban area school students</td>
<td>565</td>
<td>41.46</td>
<td>16.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.34 is greater than the Table value of 2.58 for df = 1190 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Rural area school students are better than Urban area school students in their Achievement in Science.
Hypothesis No: 114.

There is no significant difference between Rural and Urban area school students in respect of Mental ability.

Table No: 4.40

Mean, S.D. and t-value of Rural and Urban area school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural area school students</td>
<td>627</td>
<td>56.3</td>
<td>15.08</td>
<td>0.515</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Urban area school students</td>
<td>565</td>
<td>56.79</td>
<td>17.51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 0.515 is lesser than the Table value of 1.96 for df = 1190 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Rural and Urban area school students do not differ in their Mental ability.
Hypothesis No: 115.

There is no significant difference between Rural and Hill area school students in respect of Achievement motivation.

Table No: 4.41

Mean, S.D. and t-value of Rural and Hill area school students in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural area school students</td>
<td>627</td>
<td>75.16</td>
<td>9.99</td>
<td>3.01</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Hill area school students</td>
<td>202</td>
<td>72.72</td>
<td>9.97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.01 is greater than the Table value of 2.59 for df = 827 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Rural area school students are better than Hill area school students in their Achievement motivation.
Hypothesis No: 116.

There is no significant difference between Rural and Hill area school students in respect of Mental ability.

Table No: 4.42

Mean, S.D. and t-value of Rural and Hill area school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural area school students</td>
<td>627</td>
<td>56.3</td>
<td>15.08</td>
<td>9.96</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Hill area school students</td>
<td>202</td>
<td>45.48</td>
<td>12.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 9.96 is greater than the Table value of 2.59 for df = 827 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Rural area school students are better than Hill area school students in their Mental ability.
Hypothesis No: 117.

There is no significant difference between Rural and Hill area school students in respect of Achievement in science.

Table No: 4.43
Mean, S.D. and t-value of Rural and Hill area school students in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural area school students</td>
<td>627</td>
<td>44.77</td>
<td>17.41</td>
<td>10.30</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Hill area school students</td>
<td>202</td>
<td>33.19</td>
<td>12.55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 10.3 is greater than the Table value of 2.58 for df = 827 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Rural area school students are better than Hill area school students in their Achievement in science.
Hypothesis No: 118.

There is no significant difference between Rural and Hill area school students in respect of Scientific attitude.

Table No: 4.44

Mean, S.D. and t-value of Rural and Hill area school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural area school students</td>
<td>627</td>
<td>72.70</td>
<td>6.82</td>
<td>0.268</td>
<td>Insignificant at 0.05 level</td>
</tr>
<tr>
<td>Hill area school students</td>
<td>202</td>
<td>72.55</td>
<td>6.94</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 0.268 is lesser than the Table value of 1.96 for df = 827 at 0.05 level. Since the t-value is insignificant at 0.05 level, the null hypothesis is accepted.

Conclusion:

Rural and Hill area school students do not differ in their Scientific attitude.
Hypothesis No: 119.

There is no significant difference between Urban and Hill area school students in respect of Achievement motivation.

Table No: 4.45

Mean, S.D. and t-value of Urban and Hill area school students in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban area school students</td>
<td>565</td>
<td>75.48</td>
<td>9.72</td>
<td>3.40</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Hill area school students</td>
<td>202</td>
<td>72.72</td>
<td>9.97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.40 is greater than the Table value of 2.59 for df = 765 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Urban area school students are better than Hill area school students in their Achievement motivation.
Hypothesis No: 120.

There is no significant difference between Urban and Hill area school students in respect of Mental ability.

Table No: 4.46

Mean, S.D. and t-value of Urban and Hill area school students in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban area school students</td>
<td>565</td>
<td>56.79</td>
<td>17.51</td>
<td>9.67</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Hill area school students</td>
<td>202</td>
<td>45.48</td>
<td>12.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 9.67 is greater than the Table value of 2.59 for df = 765 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Urban area school students are better than Hill area school students in their Mental ability.
Hypothesis No: 121.

There is no significant difference between Urban and Hill area school students in respect of Achievement in science.

Table No: 4.47

Mean, S.D. and t-value of Urban and Hill area school students in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban area school students</td>
<td>565</td>
<td>41.46</td>
<td>16.58</td>
<td>7.35</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Hill area school students</td>
<td>202</td>
<td>33.19</td>
<td>12.55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 7.35 is greater than the Table value of 2.59 for df = 765 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Urban area school students are better than Hill area school students in their Achievement in science.
Hypothesis No: 122.

There is no significant difference between Urban and Hill area school students in respect of Scientific attitude.

Table No: 4.48

Mean, S.D. and t-value of Urban and Hill area school students in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of location of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban area school students</td>
<td>565</td>
<td>73.79</td>
<td>7.66</td>
<td>2.12</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Hill area school students</td>
<td>202</td>
<td>72.55</td>
<td>6.94</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.12 is greater than the Table value of 1.96 for df = 765 at 0.05 level. Since the t-value is significant at 0.05 level, the null hypothesis is rejected.

Conclusion:

Urban area school students are better than Hill area school students in their Scientific attitude.
Hypothesis No: 123.

There is no significant difference between Boys and Girls studying in X standard in Coimbatore district in respect of Achievement motivation.

Table No: 4.49
Mean, S.D. and t-value of Boys and Girls studying in X standard in Coimbatore district in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys in Coimbatore district</td>
<td>688</td>
<td>73.88</td>
<td>10.52</td>
<td>3.94</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Girls in Coimbatore district</td>
<td>706</td>
<td>75.97</td>
<td>9.19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.94 is greater than the Table value of 2.58 for df = 1392 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Girls are better than Boys of X standard in their Achievement motivation in Coimbatore district.
Hypothesis No: 124.

There is no significant difference between Boys and Girls studying in X standard in Coimbatore district in respect of Mental ability.

Table No: 4.50
Mean, S.D. and t-value of Boys and Girls studying in X standard in Coimbatore district in respect of Mental ability.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys in Coimbatore district</td>
<td>688</td>
<td>52.7</td>
<td>15.68</td>
<td>5.10</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Girls in Coimbatore district</td>
<td>706</td>
<td>57.11</td>
<td>16.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 5.10 is greater than the Table value of 2.58 for df = 1392 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Girls are better than Boys of X standard in their Mental ability in Coimbatore district.
Hypothesis No: 125.

There is no significant difference between Boys and Girls studying in X standard in Coimbatore district in respect of Achievement in science.

Table No: 4.51
Mean, S.D. and t-value of Boys and Girls studying in X standard in Coimbatore district in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys in Coimbatore district</td>
<td>688</td>
<td>38.97</td>
<td>15.60</td>
<td>6.16</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Girls in Coimbatore district</td>
<td>706</td>
<td>44.46</td>
<td>17.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 6.16 is greater than the Table value of 2.58 for df = 1392 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Girls are better than Boys of X standard in their Achievement in science in Coimbatore district.
Hypothesis No: 126.

There is no significant difference between Boys and Girls studying in X standard in Coimbatore district in respect of Scientific attitude.

Table No: 4.52

Mean, S.D. and t-value of Boys and Girls studying in X standard in Coimbatore district in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Mean</th>
<th>S. D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys in Coimbatore district</td>
<td>688</td>
<td>72.64</td>
<td>7.01</td>
<td>2.48</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Girls in Coimbatore district</td>
<td>706</td>
<td>73.59</td>
<td>7.37</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.48 is greater than the Table value of 1.96 for df = 1392 at 0.05 level. Since the t-value is significant at 0.05 level, the null hypothesis is rejected.

Conclusion:

Girls are better than Boys of X standard in their Scientific attitude in Coimbatore district.
Hypothesis No: 127.

There is no significant difference between X standard Boys studying in Boys schools and Mixed schools in respect of Achievement motivation.

Table No: 4.53
Mean, S.D. and t-value of Boys studying in Boys schools and Mixed schools in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys studying in Boys schools</td>
<td>378</td>
<td>74.56</td>
<td>10.4</td>
<td>1.874</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Boys studying in Mixed school</td>
<td>310</td>
<td>73.05</td>
<td>10.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 1.874 is lesser than the Table value of 1.96 for df = 686 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Boys studying in Boys schools and Mixed schools do not differ in their Achievement motivation.
Hypothesis No: 128.

There is no significant difference between X standard Boys studying in Boys schools and Mixed schools in respect of Scientific attitude.

Table No: 4.54
Mean, S.D. and t-value of Boys studying in Boys schools and Mixed schools in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys studying in Boys schools</td>
<td>378</td>
<td>72.44</td>
<td>7.36</td>
<td>0.84</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Boys studying in Mixed school</td>
<td>310</td>
<td>72.89</td>
<td>6.55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 0.84 is lesser than the Table value of 1.96 for df = 686 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion:

Boys studying in Boys schools and Mixed schools do not differ in their Scientific attitude.
Hypothesis No: 129.

There is no significant difference between X standard Boys studying in Boys schools and Mixed schools in respect of Mental ability.

Table No: 4.55

Mean, S.D. and t-value of Boys studying in Boys schools and Mixed schools in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys studying in boys schools</td>
<td>378</td>
<td>53.16</td>
<td>15.78</td>
<td>0.85</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Boys studying in Mixed school</td>
<td>310</td>
<td>52.14</td>
<td>15.54</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 0.85 is lesser than the Table value of 1.96 for df = 686 at 0.05 level. Since the t-value is insignificant, the null hypothesis is accepted.

Conclusion

Boys studying in Boys schools and Mixed schools do not differ in their Mental ability.
Hypothesis No: 130.

There is no significant difference between X standard Boys studying in Boys schools and Mixed schools in respect of Achievement in science.

Table No: 4.56

Mean, S.D. and t-value of Boys studying in Boys schools and Mixed schools in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys studying in Boys schools</td>
<td>378</td>
<td>36.59</td>
<td>14.26</td>
<td>4.42</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Boys studying in Mixed school</td>
<td>310</td>
<td>41.87</td>
<td>16.63</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 4.42 is greater than the Table value of 2.59 for df = 686 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Boys studying in mixed schools are better than boys studying in boys schools in their Achievement in Science.
Hypothesis No: 131.

There is no significant difference between X standard Girls studying in Girls schools and Mixed schools in respect of Achievement in science.

Table No: 4.57

Mean, S.D. and t-value of Girls studying in Girls schools and Mixed schools in respect of Achievement in science.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls studying in Girls schools</td>
<td>386</td>
<td>42.34</td>
<td>16.53</td>
<td>3.49</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Girls studying in Mixed school</td>
<td>320</td>
<td>47.01</td>
<td>18.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 3.49 is greater than the Table value of 2.59 for df = 704 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Girls studying in Mixed schools are better than Girls studying in Girls schools in their Achievement in science.
Hypothesis No: 132.

There is no significant difference between X standard Girls studying in Girls schools and Mixed schools in respect of Scientific attitude.

Table No: 4.58
Mean, S.D. and t-value of Girls studying in Girls schools and Mixed schools in respect of Scientific attitude.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls studying in Girls schools</td>
<td>386</td>
<td>72.55</td>
<td>6.85</td>
<td>4.13</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td>Girls studying in Mixed school</td>
<td>320</td>
<td>74.85</td>
<td>7.76</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 4.13 is greater than the Table value of 2.59 for df = 704 at 0.01 level. Since the t-value is significant at 0.01 level, the null hypothesis is rejected.

Conclusion:

Girls studying in Mixed schools are better than Girls studying in Girls schools in their Scientific attitude.
Hypothesis No: 133.

There is no significant difference between X standard Girls studying in Girls schools and Mixed schools in respect of Mental ability.

Table No: 4. 59
Mean, S.D. and t-value of Girls studying in Girls schools and Mixed schools in respect of Mental ability.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls studying in Girls schools</td>
<td>386</td>
<td>55.70</td>
<td>15.99</td>
<td>2.47</td>
<td>Significant at 0.05 level</td>
</tr>
<tr>
<td>Girls studying in Mixed school</td>
<td>320</td>
<td>58.8</td>
<td>17.13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 2.47 is greater than the Table value of 1.96 for df = 704 at 0.01 level. Since the t-value is significant at 0.05 level, the null hypothesis is rejected.

Conclusion:

Girls studying in Mixed schools are better than Girls studying in Girls schools in their Mental ability.
Hypothesis No: 134.

There is no significant difference between X standard Girls studying in Girls schools and Mixed schools in respect of Achievement motivation.

Table No: 4.60

Mean, S.D. and t-value of Girls studying in Girls schools and Mixed schools in respect of Achievement motivation.

<table>
<thead>
<tr>
<th>Type of school</th>
<th>N</th>
<th>Mean</th>
<th>S.D</th>
<th>t-value</th>
<th>Significant Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls studying in Girls schools</td>
<td>386</td>
<td>76.33</td>
<td>9.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.15</td>
<td>Insignificant</td>
</tr>
<tr>
<td>Girls studying in Mixed school</td>
<td>320</td>
<td>75.53</td>
<td>9.35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:

From the above Table it is clear that the calculated t-value 1.15 is lesser than the Table value of 1.96 for df = 704 at 0.01 level. Since the t-value is insignificant, the null hypothesis is rejected.

Conclusion:

Girls studying in Girls schools and Mixed schools do not differ in their Achievement motivation.