Chapter IV

**ANALYSIS AND INTERPRETATIONS**

* *Objectives of the study*
* *Hypotheses of the study*
* *Preliminary Analysis*
* *Major Analysis*
* *Tenability of hypotheses*

This chapter deals with the analysis and interpretation of the data described in the methodology chapter. The aim of the present study was to find out the Educational Aspirations among secondary school students of Lakshadweep on the basis of gender, class of study and different islands.

**Objectives**

The investigator set the following objectives for the present study.

* To find out the level of Educational Aspirations among Secondary School Students of Lakshadweep for the total sample and relevant sub samples.
* To find out whether there exists any significant difference in the level of Educational Aspirations among secondary school students of Lakshadweep for the subsamples based on
* Gender
* Class of study
* Different islands

**Hypotheses**

* The secondary school students of Lakshadweep have high level of Educational Aspirations.
* There exists significant difference in the level of Educational Aspirations among secondary school students of Lakshadweep for the subsamples based on
* Gender
* Class of study
* Different islands

**Preliminary statistics**

 To see whether the variable Educational Aspirations among secondary school students is normally distributed or not, important descriptive statistical constants like mean, median, mode, standard deviation, skewness and kurtosis were computed for the total sample. The details of the statistics are presented in table 3.

Table 3

*Descriptive statistics of the variable Educational Aspirations among secondary school students for the total sample (N=420)*

|  |  |
| --- | --- |
| Descriptive statistics  | Educational Aspiration Score |
| Mean  | 226.05 |
| Median | 227 |
| Mode  | 228.96 |
| Standard deviation  | 20.63 |
| Skewness  | -0.498 |
| Kurtosis | 0.358 |
| 10th Percentile  | 199.10 |
| 90th Percentile  | 251 |
| CI lower limit (95%)  | 224.09 |
| CI upper limit (95%) | 228.01 |

Table 3 reveals that three measures of central tendencies viz, mean, median and mode of variable Educational Aspirations among secondary school students of Lakshadweep are 226.05, 227 and 228.96 respectively for the total sample of 420. These values are almost equal. The extent of skewness is -0.498 shows that the distribution is negatively skewed. The measure of kurtosis is 0.358 which is greater than 0.263 that is the curve is platykurtic. For the total sample, the 10th percentile of the score of Educational Aspirations among secondary school students is 199.10. It means only 10 percent of secondary school students lie below the score 199.10. The 90th percentile of the score of Educational Aspirations among secondary school students is 251. That means 90 percent of secondary school students are having Educational Aspiration less than 251.

The distribution of scores of Educational Aspirations among secondary school students of Lakshadweep is graphically plotted in figure 1.



*Figure 1:* Graphical representation of frequency distribution of scores of Educational Aspirations among secondary school students of Lakshadweep.

 From the figure 1, we can conclude that Educational Aspirations among secondary school students of Lakshadweep follows approximately a normal distribution.

**The level of Educational Aspirations among secondary school students**

The mean score obtained by the group was compared with the scale value 216 to test the hypothesis that secondary school students have high level of Educational Aspirations. The details are given in table 4.

Table 4

*Data and Results of the one sample‘t’ testfor level of Educational Aspirations among secondary school students*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Group | Mean | Scale Value | SD | N | t |
| Total | 226.05 | 216 | 20.64 | 420 | 9.98 |
| Boys | 222.73 | 216 | 19.72 | 200 | 4.827 |
| Girls | 229.07 | 216 | 21.03 | 220 | 9.216 |
| Kavaratti | 222.04 | 216 | 20.52 | 146 | 3.557 |
| Amini | 224.95 | 216 | 20.57 | 140 | 5.148 |
| Kadmat | 231.57 | 216 | 19.77 | 134 | 9.117 |
| VIII | 228.66 | 216 | 21.51 | 123 | 6.527 |
| IX | 225.09 | 216 | 20.35 | 162 | 5.682 |
| X | 224.83 | 216 | 20.09 | 135 | 5.105 |

 For the total sample the mean value obtained was 226.05. The t value obtained for the total sample was 9.98 which is greater than 2.33 the required value for significance at .01 level for a directional hypothesis. That is the mean score obtained for secondary school students is significantly greater than the scale value 216. For the subsample base on gender boys has the mean value 222.73 and girls has the mean value 229.07. The t value obtained for boys and girls are 4.827 and 9.216 respectively. In the case of student from different islands the mean value for Kavaratti, Amini and Kadmat are 222.04, 224.95 and 231.57 respectively. The t values obtained are 3.557, 5.148 and 9.117 respectively. For the subsample class of study the mean value obtained for VIII standard students is 228.66, IX standard is 225.09 and for X standard is 224.83. The t values obtained for standard VIII, IX ad X are 6.527, 5.682 and 5.105 respectively. The obtained t values for all sub samples are greater than 2.33 the required value for significance at .01 level. As the mean scores are significantly greater than the scale value 216 the secondary school students have high Educational Aspirations.

 The educational Aspiration level of secondary school students of Lakshadweep is almost high as the mean value obtained is not significantly differ from the scale value 216.

**Educational Aspirations among secondary school students based on gender, different islandsand class of study**

The extent of Educational Aspirations among secondary school students based on gender, different islands andclass of study is calculated through the mean and standard deviation of the sub samples. The details of mean and standard deviation and sample size are given in table 5.

Table 5

*Data and Results of the level of Educational Aspiration among secondary school students based on sub samples (gender, different islands and class of study).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sub Samples | (N) | Mean | Standard Deviation | 95% CI lower limit | 95% CI upper limit |
| Gender | Boys | 200 | 222.73 | 19.71 | 220.85 | 224.61 |
| Girls | 220 | 229.06 | 21.03 | 227.07 | 231.05 |
| Different Islands | Kavaratti | 146 | 222.04 | 20.52 | 220.08 | 224 |
| Amini | 140 | 224.95 | 20.57 | 222.99 | 226.91 |
| Kadmat | 134 | 231.56 | 19.76 | 229.68 | 233.44 |
| Class of Study | VIII | 123 | 228.65 | 21.50 | 226.62 | 230.68 |
| IX | 162 | 225.08 | 20.35 | 223.14 | 227.02 |
| X | 135 | 224.82 | 20.09 | 222.90 | 226.74 |

 From the table 5, it is found that the mean scores of Educational Aspirations among secondary school students based on gender for boys and girls are 222.73 and 229.06 respectively. It means that the mean scores of Educational Aspirations of girls’ are greater than the mean scores obtained by boys.

 The table also shows that the mean scores of Educational Aspirations among secondary school students based on sub sample different islands – Kavaratti, Amini and Kadmat are 222.04, 224.95 and 231.56 respectively. It indicates that the mean scores obtained by secondary school students of Kavaratti is 222.04, the mean scores obtained by secondary school students of Amini is 224.95 and the mean scores obtained by secondary school students of Kadmat is 231.56. It indicates that the secondary school students of Kadmat are having greater mean score than the secondary school students of Kavaratti and Amini.

 The table also indicates that the mean scores of Educational Aspirations among secondary school students based on class of study VIII, IX and X are 228.65, 225.08 and 224.82 respectively. It indicates that the mean scores obtained by the secondary school students of standard VIII is 228.65. The mean scores obtained by the secondary school students of standard IX is 225.08 and the mean scores obtained by the secondary school students of standard X is 224.82. It indicates that the secondary school students of standard VIII is having greater mean score than the secondary school students of standard IX and X.

**Comparison of mean scores of Educational Aspirations among secondary school students between boys and girls**

The mean and standard deviation of the sub samples based on gender is calculated. The comparison of the mean scores of Educational Aspirations between boys and girls were done by calculating the‘t’ value. The result of the t-test is given in table 6.

Table 6

*Data and result of the test of significance of difference between mean scores of Educational Aspirations of boys and girls secondary school students.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gender | N | Mean | Standard Deviation | t-value |
| Boys | 200 | 222.73 | 19.71 | 0.333 |
| Girls | 220 | 229.06 | *21.03* |

From table 6 it is evident that the mean scores obtained by the secondary school students for boys and girls are 222.73 and 229.06 respectively. And t-value obtained is 0.333 which is less than the tabled value of t (1.96) required for significance level .05. It indicates that the mean scores of Educational Aspirations among secondary school students based on gender of the sample is not significant at .05 level. Which means there exists no significant difference between boys and girls in their Educational Aspirations.

**Comparison of mean scores of Educational Aspirations among secondary school students based on different islands (Kavaratti, Amini and Kadmat)**

In order to check whether there exists any significant difference in Educational Aspirations based on different islands, the analysis of variance of the variable Educational Aspirations among secondary school students is done and given in the table 7.

Table 7

*Data and result of analysis of variance of the variable Educational Aspirations among secondary school students based on different islands (Kavaratti, Amini and Kadmat)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test score | Sum of squares | Df | Mean squares | F | Sig |
| Between groups | 6594.651 | 2 | 3297.326 | 8.001 | .000 |
| Within groups | 171847.299 | 417 | 412.104 |  |  |
| Total | 178441.950 | 419 |  |  |  |

**Discussion**

This table indicates that the F value obtained by the secondary school students based on different islands is 8.001, which is greater than the F value (4.61) which is required for significant at .01 level with (2,417) degrees of freedom. Hence there is a significant difference in the mean score of Educational Aspirations among secondary school students based on different islands.

 Since the main effect of different islands on Educational Aspirations among secondary school students is found to be significant, the investigator conducted Scheffe test. The data and results are presented in table 8.

Table 8

*Results of Post Hoc test of Educational Aspirations among secondary school students based on different islands*

|  |  |
| --- | --- |
| Different islands | Mean difference |
| Kavaratti – Amini  | -2.90890 |
| Kadmat – Amini  | -6.61716\* |
| Kavaratti – Kadmat  | -9.52607\* |

(\* The mean difference is significant at 0.05 level)

Table 8 reveals that there is no significant difference in the Educational Aspirations between secondary school students of Kavaratti and Amini. There is a significant difference in the Educational Aspirations between the secondary school students of Kadmat and Amini. And there is also a significant difference in the Educational Aspirations between secondary school students of Kavaratti and Kadmat. Secondary school students of Kadmat have more Educational Aspirations compared to the secondary school students of Kavaratti and Amini.

**Comparison of mean scores of Educational Aspirations among secondary school students based on class of study (VIII, IX and X)**

 To check whether there exists any significant difference in Educational Aspirations based on class of study, the analysis of variance of the variable Educational Aspirations among secondary school students is given in the
table 9.

Table 9

*Data and results of Educational Aspirations among secondary school students based on class of study (VIII, IX and X)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Score | Sum of squares | Df | Mean squares | F | Sig |
| Between groups | 1188.420 | 2 | 594.210 | 1.398 | .248 |
| Within groups | 177253.530 | 417 | 425.068 |  |  |
| Total | 178441.950 | 419 |  |  |  |

Table 9 indicates that F value obtained by the secondary school students based on class of study is 1.398 which is less than the tables F value (3.00) which is required for significant at .05 level with (2,417) degrees of freedom. Hence there is no significant difference in the mean scores of Educational Aspirations among secondary school students based on class of study.

**Tenability of Hypotheses**

The tenability of hypotheses was examined in the light of the above findings. The first hypothesis states thatthe secondary school students of Lakshadweep have high level of Educational Aspirations. It is found that the mean score obtained for secondary school students for the total and subsamples is significantly greater than the scale value. Hence the secondary school students of Lakshadweep have high Educational Aspirations. Thus the hypothesis one is fully substantiated.

The second hypothesis states that there exists significant difference in the level of Educational Aspirations among secondary school students of Lakshadweep for the subsamples based on Gender, Different Islands and Class of study.

Findings of the study revealed that,

1. There exists no significant difference in the Educational Aspirations among secondary school students based on sub sample gender.
2. There is a significant difference in the Educational Aspirations among secondary school students based on sub sample different islands. There is a significant difference in the Educational Aspirations between secondary school students of Kavaratti - Kadmat and Kadmat – Amini. Secondary school students of Kadmat have more Educational Aspirations than secondary school students of Kavaratti and Amini. And there is no significant difference in the Educational Aspirations of secondary school students of Kavaratti – Amini.
3. There is no significant difference in the Educational Aspirations among secondary school students based on sub sample class of study.

From the findings the hypothesis is rejected in the case of sub samples based on gender and class of study. But in the case of sub sample based on different islands the hypothesis is partially substantiated.