

CHAPTER-4

DATA ANALYSIS AND INTERPRETATION

Data Analysis and Interpretation

4.1 Introduction

The present chapter deals with the analysis and interpretation of the collected data. Analysis of the data means studying the organized material in order to discover the inherent facts in the research work. The analysis and interpretation of the collected data for a study are more important in order to draw a conclusion. The data as such has no meaning unless it is analysed and interpreted by suitable methods. Analysis of data means studying the tabulated material in order to determine the inherent facts or meaning. It involves breaking up complex facts into simpler parts and putting them into new arrangements for the purpose of interpretation. The analysis and interpretation of data collected is a process that would make a research study significant and of great value to be mentioned. The findings of the study help in deciding and implementing the further course of action. Data interpretation is the application of the statistical procedure to analyse specific observed or assumed facts from a study. For the data interpretation, it is crucial to understand the measurement of scale and decide which statistical approach is required to be followed by the researcher based on the research objective set.

The present study entitled, “Attitude of Pre-Service Teachers Towards E-Learning” is based on descriptive method. The major aim of the study is to assess the attitude of pre-service teachers towards E-learning. The relevant statistical techniques like mean, standard deviation, and t-test were worked out for the testing of hypotheses pertaining to all the objectives. The hypothesis was tested at a significant level of 0.05.

4.2 Objective wise analysis and interpretation of data

In this study, the researcher has formulated objectives and to achieve these objectives two hypotheses were framed.

Objective-1

To study the attitude of pre-service teachers towards E-learning.

Table No. 4.1 shows analysed data of the attitude of pre-service teachers towards e-learning.

Interpretation	No. of pre-service teachers	Percentage (%)
High attitude towards e-learning	46	83.63
Moderate attitude towards e-learning	08	14.54
Low attitude towards e-learning	01	01.81

Figure 4.1 shows analyzed data of the attitude of pre-service teachers towards e-learning

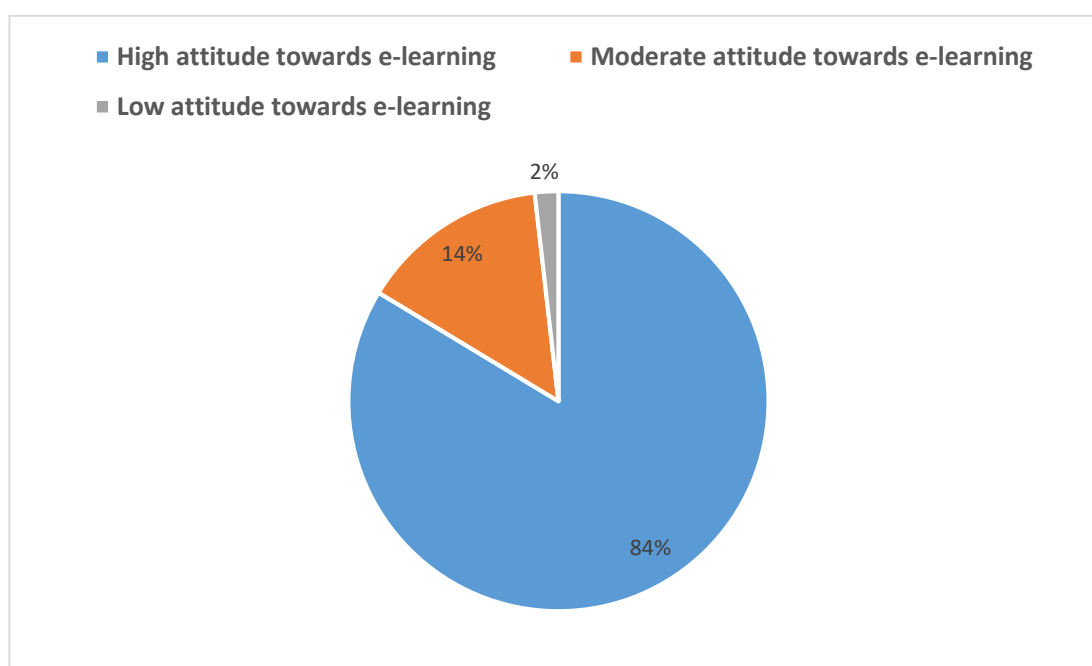


Table and figure 4.1 depict the attitude of pre-service teachers towards e-learning. After analysis of sampled data of 55 pre-service teachers, researcher was found that 83.6 percent pre-service teachers show high attitude towards E-learning, while 14.54 percent pre-service teachers show moderate attitude towards E-learning and 01.81% pre-service teachers showed low attitude towards e-learning. If, we analyses data on the basis overall responses then it can be concluded that there is a high attitude of pre-service teachers towards E-learning.

Objective-2

To study the attitude of male and female pre-service teachers towards e-learning.

Hypothesis-1

There is no significant difference in attitude between male and female pre-service teachers towards e-learning.

Table 4.2: Represents Mean, SD and t-value of Male and female pre-service teachers' attitude towards E-learning.

Groups	N	Mean	SD	df	Confidence Level	p-value	t-value	Remark
Male	27	87.18	12.53	53	95%	.005	-2.939	Significant
Female	28	94.78	5.39					

Figure 4.2 Shows graphical representation of Mean of male and female pre-service teachers towards e-learning

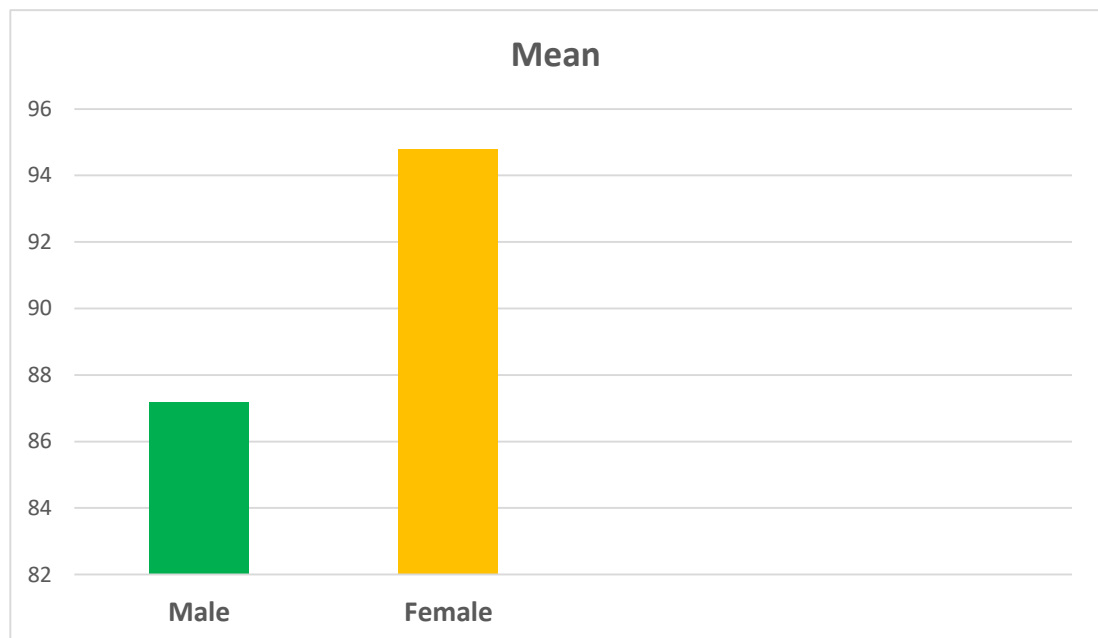


Table 4.2 depicts, SD, and t value regarding the attitude toward E-learning of Pre-Service Teachers. On the basis of the above-tabulated data, we analyzed that, the male

and female teachers have mean values 87.18 and 94.78 respectively. Whereas, the standard deviation of male and female pre-service teachers is 12.53 and 5.39 respectively. It is evident that the calculated t-value at 53 degrees of freedom is -2.939 and the tabulated t-value at the same df and 0.05 level of significance is 1.674. As we observed that the calculated t-value exceeds from tabulated t-value, therefore, we can say that the calculated t-value is significant at a 0.05 level of significance. So, the null hypothesis, that there is no significant difference in attitude between male and female pre-service teachers towards e-learning is not accepted. So, it can be concluded that male pre-service teachers having less positive attitude toward e-learning as compared to their counterpart female pre-service teachers.

Objective-3

To study the attitude of central government and state government pre-service teachers towards E- learning.

Hypothesis-2

There is no significant difference in attitude between Central Government and state government pre-service teachers towards E-learning.

Table 4.3: Shows Mean, SD and t-value of Central Government and State Government pre-service teachers with reference to E-learning attitude.

Groups	N	Mean	SD	df	Confidence Level	p-value	t-value	Remark
Central Government	28	93.32	7.363	53	95%	.095	1.700	Not Significant
State Government	27	88.70	12.262					

Figure 4.3 Shows graphical representation of Mean of Central government and State Government Pre-service teachers towards e-learning

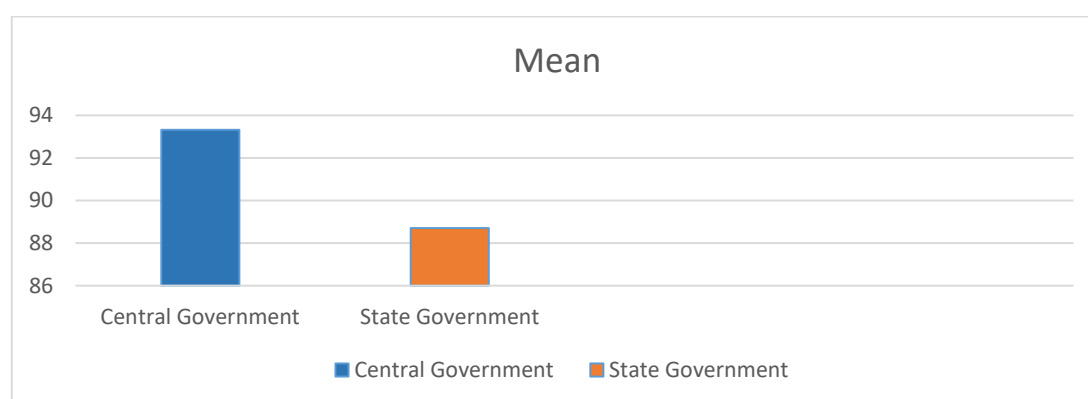


Table and graph 4.3 depicts the mean, SD, and t value regarding the attitude toward E-learning of Pre-Service Teachers. On the basis of the above-tabulated data, we analyzed that, the central government and state government institutes' pre-service teachers had mean values 93.32 and 88.70 respectively. Whereas, the standard deviation of central government and state government pre-service teachers is 7.36 and 12.26 respectively. It is evident that the calculated t-value at 53 degrees of freedom is 1.70 and the tabulated t-value at the same df and 0.05 level of significance is 1.96. As we observed that the calculated t-value is less than the tabulated t-value, therefore, we can say that the calculated t-value is not significant at a 0.05 level of significance. So, the null hypothesis is accepted, that there is no significant difference in attitude between central government and state government institutes' pre-service teachers towards e-learning is accepted.

4.3 Conclusion:

The following conclusions are drawn from the above analysis and interpretation of the data:

- There is a high attitude of pre-service teachers towards e-learning.
- The male pre-service teachers having less positive attitude toward e-learning as compared to female pre-service teachers.
- The Central Government Institutes' pre-service teachers and State Government Institutes' pre-service teachers having a difference in attitudes but it is evident that there is no significant difference in both types of Institutes.