

# CHAPTER IV

## DATA ANALYSIS AND INTERPRETATION

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### 4.1 INTRODUCTION

The need and justification, objectives along with the hypotheses of the study are presented under different headings of the chapter-I. The reviews of the related literature are presented in the chapter-II. The methodology, sample, design, tools and techniques, procedure of data collection and the statistical techniques used for the analysis of data are presented in chapter-III. In this chapter, objective-wise analysis of the data is presented, below, under separate headings.

### 4.2 TECHNIQUES USED IN DATA ANALYSIS:

In the present study the scores of six high school students on classroom climate and their academic achievement of last examination in the terms of Mean, Standard deviation, Correlation, have been applied.

### 4.3 VERIFICATION OF THE HYPOTHESIS:

There are six hypotheses in the study, which has to be verified:

- 1) **Hypothesis no. 1:** There is no significant relationship between classroom climate and academic achievement of class IX students.

**Table 4.1:** Relationship between classroom climate and academic achievement of class IX students

S. No.	Type of the School	No. of the Students	PE	Correlation
1	State Government Schools	40	0.015	0.045
2	Central Government Schools	40	0.015	0.054
3	Private schools	40	0.03	0.076
	Total	120	0.06	0.051

#### **Explanation and Interpretation-**

The coefficient of correlation between classroom climate and academic achievement of class IX students is 0.05 which is positive and negligible. Further, this correlation is not significant as it is less than 6 times PE.

#### **Conclusion-**

Therefore, though the relationship between classroom climate and academic achievement of class IX students is positive but it is negligible and not significant.

- 2) **Hypothesis no. 2:** There is no significant relationship between classroom climate and academic achievement of class IX students of state government schools of Bhopal.

**Table 4.2:** Relationship between classroom climate and academic achievement of class IX students of state government schools of Bhopal

S. No.	Type of the School	No. of the Students	PE	Correlation
1.	State Government School	40	0.015	0.045

**Explanation and Interpretation-** The coefficient of correlation between classroom climate and academic achievement of class IX students of State Government School is 0.05, which is positive and negligible. Further, this correlation is not significant as it is less than 6 times PE.

**Conclusion-** Therefore, though the relationship between classroom climate and academic achievement of class IX students of State Government School is positive but it is negligible and not significant.

- 3) **Hypothesis no. 3:** There is no significant relationship between classroom climate and academic achievement of class IX students of central government schools of Bhopal.

**Table 4.3:** Relationship between classroom climate and academic achievement of class IX students of central government schools of Bhopal

S. No.	Type of the School	No. of the Students	PE	Correlation
1.	Central Government School	40	0.015	0.054

**Explanation and Interpretation-** The coefficient of correlation between classroom climate and academic achievement of class IX students of Central Government School is 0.05, which is positive and negligible. Further, this correlation is not significant as it is less than 6 times PE.

**Conclusion-** Therefore, though the relationship between classroom climate and academic achievement of class IX students of Central Government School is positive but it is negligible and not significant.

- 4) **Hypothesis no. 4:** There is no significant relationship between classroom climate and academic achievement of class IX students of private school of Bhopal.

**Table 4.4:** Relationship between classroom climate and academic achievement of class IX students of private school of Bhopal

S. No.	Type of the School	No. of the Students	PE	Correlation
1.	Private School	40	0.03	0.075

**Explanation and Interpretation-** The coefficient of correlation between classroom climate and academic achievement of class IX students of Private School is 0.05, which is positive and negligible. Further, this correlation is not significant as it is less than 6 times PE.

**Conclusion-** Therefore, though the relationship between classroom climate and academic achievement of class IX students of Private School is positive but it is negligible and not significant.

- 5) **Hypothesis no. 5:** There is no significant difference between classroom climates in different schools of Bhopal.

**Table 4.5:** Significant difference between classroom climates in State Government Schools and Central Government Schools of Bhopal

S. No.	Type of the School	N	Mean	Standard Deviation	't' value	Degree of freedom
1	State Government	40	110.07	6.95	0.69	78
2	Central Government	40	109.43	6.44		

**Explanation and Interpretation-**The calculated value of 't' is found to be 0.69. The calculated value of 't' is smaller than that of 't' at 0.05 level. The value of 't' is not significant at 0.05 level. Hence, the null hypothesis is not rejected at 0.05 level of significance.

**Conclusion-** There is no significant difference in the classroom climates of class-IX students of State Government Schools and Central Government Schools.

**Table 4.6:** Significant difference between classroom climates in Central Government Schools and Private schools of Bhopal

S. No.	Type of the School	N	Mean	Standard Deviation	't' value	Degree of freedom
1	Central Government	40	109.43	6.44	0.039	78
2	Private	40	110.77	7.38		

**Explanation and Interpretation-**The calculated value of 't' is found to be 0.39. The calculated value of 't' is smaller than that of 't' at 0.05 level the value of 't' is not significant at 0.05 level. Hence, the null hypothesis is not rejected at 0.05 level of significance.

**Conclusion-** There is no significant difference in the classroom climates of class-IX students of Central Government Schools and Private schools.

**Table 4.7:** Significant difference between classroom climates in State Government Schools and Private schools

S. No.	Type of the School	N	Mean	Standard Deviation	't' value	Degree of freedom
1	State Government	40	110.07	6.95	0.69	78
2	Private	40	110.77	7.38		

**Explanation and Interpretation-**The calculated value of 't' is found to be 0.69. The calculated value of 't' is smaller than that of 't' at 0.05 level the value of 't' is not significant at 0.05 level. Hence the null hypothesis is not rejected at 0.05 level of significance.

**Conclusion-**there is no significant difference in the classroom climates of class-IX students of State Government Schools and Private schools.

- 6) **Hypothesis no. 6:** There is no significant difference between academic achievements of class IX students of different schools of Bhopal.

**Table 4.8:** Significant difference between academic achievements of class IX students of State Government Schools and Central Government Schools Bhopal

S. No.	Type of the School	N	Mean	Standard Deviation	't' value	Degree of freedom
1	State Government	40	60.47	7.97	4.39	78
2	Central Government	40	72.75	10.01		

**Explanation and Interpretation-**The calculated value of 't' is found to be 4.39. The calculated value of 't' is smaller than that of 't' at 0.05 level the value of 't' is not significant at 0.05 level. Hence, the null hypothesis is not rejected at 0.05 level of significance.

**Conclusion-**there is no significant difference in the academic achievements of class-IX students of State Government Schools and Central Government Schools.

**Table 4.9:** Significant difference between academic achievements of class IX students of Central Government Schools and private school

S. No.	Type of the School	N	Mean	Standard Deviation	't' value	Degree of freedom
1	Central Government	40	72.75	10.01	0.89	78
2	private	40	73.05	9.81		

**Explanation and Interpretation-**The calculated value of 't' is found to be 0.89. The calculated value of 't' is smaller than that of 't' at 0.05 level the value of 't' is not significant at 0.05 level. Hence, the null hypothesis is not rejected at 0.05 level of significance.

**Conclusion-**There is no significant difference in the academic achievements of class-IX students of Central Government Schools and private school.

**Table 4.10:** Significant difference between academic achievements of class IX students of State Government Schools and private school

S. No.	Type of the School	N	Mean	Standard Deviation	't' value	Degree of freedom
1	State Government	40	60.47	7.97	4.39	78
2	private	40	73.05	9.81		

**Explanation and Interpretation-**The calculated value of 't' is found to be 4.39. The calculated value of 't' is smaller than that of 't' at 0.05 level the value of 't' is not significant at 0.05 level. Hence, the null hypothesis is not rejected at 0.05 level of significance.

**Conclusion-**There is no significant difference in the academic achievements of class-IX students of State Government Schools and private school.