CHAPTER-IV

DATA ANALYSIS

AND

INTERPRETATION

DATA ANALYSIS AND INTERPRETATION

The data analysis and data interpretation are the processes of collecting, transforming, cleaning and modelling data. It is a crucial part for every research because it helps the researcher to draw conclusion from the research study. No research can survive without data analysis and interpretation (Alem, D.D., 2020).

Data analysis involves examining data to uncover patterns, trends, and insights, while data interpretation gives meaning to those findings by explaining the pattern. Analysing and interpreting data may not always be a simple linear process. It involves various statistical techniques and calculations.

4.1 MEAN, SD, AND T-VALUE ANALYSIS OF THE STUDENTS STUDYING IN BOARDING AND NON-BOARDING SCHOOL

In the present study the data is analysed statistically. In order to test the significant difference in family values of Jawahar Navodaya Vidyalaya and Kendriya Vidyalaya students, the researcher employed t-test for the analysis of data.

Table 4.1: Statistical analysis of Students Studying in Boarding and Non-Boarding Schools of Bhopal

Types of school	N	df	Mean	Std. Deviation	Std. Error Mean	t-value
Boarding (JNV)	50	98	54.84	8.84183	1.25042	3.886
Non-Boarding (KV)	50		48.00	8.75983	1.23883	

** Significant at 0.01 level

Table 4.1 reveals that t-value is 3.886. This value is significant at 0.01 level with df equal to 1/98. Therefore, the null hypothesis, namely, "there is no significant difference in family values of adolescence students studying in boarding and non-boarding schools," is rejected. It implies that the mean scores of family values of students studying in Boarding school (JNV) is higher than the Non-boarding school (KV). The SD of students studying in Boarding school (JNV) is higher than the Non-boarding school (KV). Therefore, the standard error of mean of students studying in Boarding school (JNV) is higher than the Non-boarding school (KV). Thus, it can be inferred that there is significant difference in the family value scores of students studying in

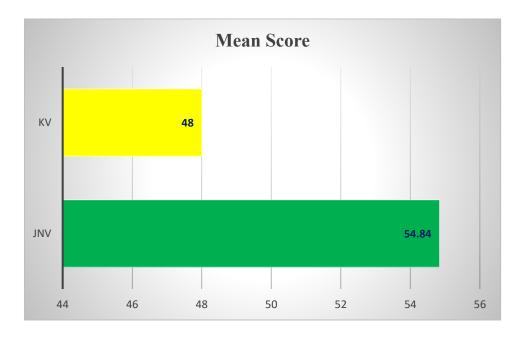Boarding school (JNV) , (M=54.84, SD=8.84, t (98) = 3.88, p<.05) and Non-boarding school (KV), (M = 48, SD=8.76).

Fig. 4.1: Mean score of Students Studying in Boarding and Non-Boarding Schools of Bhopal.

In the above figure 4.1 horizontal bar graph represents the mean scores of the family values of the students studying in boarding and non-boarding schools of Bhopal. The green horizontal bar represents the mean score of the students studying in JNV is 54.84. Whereas the yellow horizontal bar represents the mean score of the students studying in KV is 48.00. The mean score of the students studying in JNV is greater than the mean score of the students studying in KV.

Findings: On the basis of above graph, it is found that the students studying in JNV possesses higher family value as compared to the students studying in KV.

4.2 PERCENTAGE ANALYSIS OF OVERALL FAMILY VALUE OF THE STUDENTS STUDYING IN BOARDING AND NON-BOARDING SCHOOL

The scores of overall family values are analysed and we found that the range of scores regarding family values come under very low to very high categories. The range of scores from 0-20%, 21%-40%, 41%-60%, 61%-80% and 81%-100 are categorised as very low, low, average, high and very high respectively.

Table 4.2: Overall Family Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal

Range of Scores	Levels of Family Values	Number/Percentage of Students of JNV	Number/Percentage of Students of KV
0-20% (0-14)	Very low	0	0
21%-40% (15-28)	Low	1 (2)	1 (2)
41%-60% (29-42)	Average	8 (16)	13 (26)
61%-80% (43-56)	High	12 (24)	28 (56)
81%-100 (57-70)	Very high	29 (58)	8 (16)

Figures in parenthesis denote percentage

Table 4.2 represents overall family value of students studying in boarding and non-boarding central government schools. Above table reveals that students studying in Jawhar Navodaya Vidyalaya having higher family values as compared to Kendriya Vidyalaya. If we analyse the data on the basis of level of family values, we found that 58, 24, 16 and 2 percent of students coming from Jawahar Navodaya Vidyalaya having very high, high, average, and low family values respectively. Whereas, students coming from Kendriya Vidyalaya having 16, 56, 26, and 2 percent of family values ranging from very high, high, average and low respectively. On the basis of above analysed data, it can be revealed that, the family structure, socio-economic status and urbanization may affect the development of family values of adolescents.
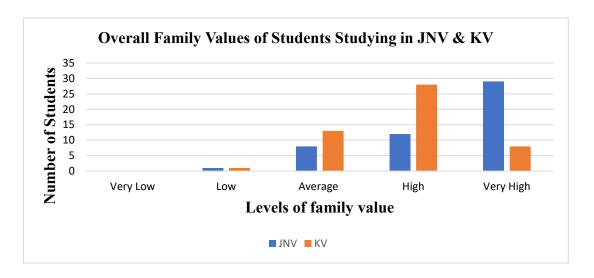

Fig. 4.2: Overall Family Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal

The fig 4.2 depicts the overall family values of the students studying in boarding and non-boarding schools of Bhopal. On the basis of above bar graph, we analysed that, blue bar column represents the students studying in JNV and the orange bar column represents the students studying in KV. Whereas, X- axis represents the various categories of family values i.e. very low, low, average, high, very high. In other hand Y-axis represents the number of students falling under each category. The above graph reveals that under very low level of family values zero number of students is found from both types of schools. The equal number of students are having low level of family values in both types of schools. While, under average and high levels of family values categories the number of students studying in KV are greater as compared to the students studying in JNV. In the very high category of family values most of the students are coming from JNV as compared to the students studying in KV.

Findings: It is found that the students studying in boarding school (JNV) having higher level of overall family values as compared to the students studying in non-boarding school (KV).

4.2.1 PERCENTAGE ANALYSIS OF FAMILY BONDING AND TOGETHERNESS VALUE OF THE STUDENTS STUDYING IN BOARDING AND NON-BOARDING SCHOOL

The overall family value is divided into four dimensions. Out of which the family bonding and togetherness is considered as the first dimension. There is total seven items having the item number 1, 8, 9, 16, 19, 27, 30 under this first dimension and the full mark is 16. The sum of the scores of each item under the first dimension represents the family bonding and togetherness value of the students. The range of scores from 0-20%, 21%-40%, 41%-60%, 61%-80% and 81%-100 are categorised as very low, low, average, high and very high respectively. The table 4.3 interprets the number as well as the percentage of students falling under each category.

Table 4.3: Dimension-1, Family Bonding and Togetherness Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal

Range of Scores	Levels of Family Values	Number/Percentage of Students of JNV	Number/Percentage of Students of KV
0-20% (0-3)	Very low	0	0
21%-40% (4-6)	Low	1 (2)	11 (22)
41%-60% (7-9)	Average	7 (14)	6 (12)
61%-80% (10-12)	High	13 (26)	17 (34)
81%-100 (13-16)	Very high	29 (58)	16 (32)

Figures in parenthesis denote percentage

Table 4.3 represents the first dimension of family value i.e. family bonding and togetherness of students studying in boarding and non-boarding central government schools. Above table reveals that students studying in Jawhar Navodaya Vidyalaya having higher value of family bonding and togetherness as compared to Kendriya Vidyalaya. If we analyse the data on the basis of level of family values, we found that 58, 26, 14 and 2 percent of students coming from Jawahar Navodaya Vidyalaya having very high, high, average and low family values respectively. Whereas, students coming from Kendriya Vidyalaya having 32, 34, 12, and 22 percent of family values ranging from very high, high, average and low respectively. From the analysis of above table value, it can be depicted that family structure, socio-economic status of family and Urbanization may affect the development of family values of adolescents.
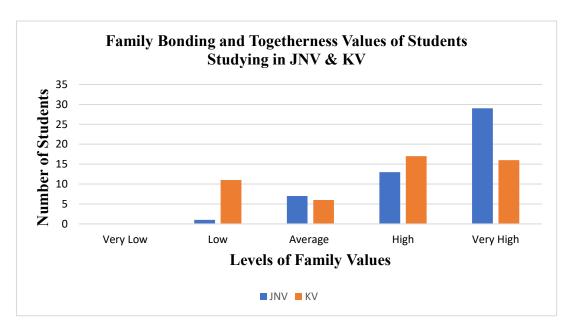

Fig. 4.3: Dimension -1, Family Bonding and Togetherness Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal.

The fig 4.3 represents the family bonding and togetherness values of students studying in boarding and non-boarding schools of Bhopal. In this multiple bar graph the blue bar column represents the students studying in JNV and the orange bar column represents the students studying in KV. The X- axis represents the levels of family values category i.e. very low, low, average, high, very high whereas the Y-axis represents the number of students falling under each category. From the above graph it is found that there is no student having very low level of family bonding and togetherness values in both the schools. Greater number of students studying in KV attains low and high levels of family bonding and togetherness values as compared to the number of students studying in JNV. But slightly greater number of students studying in JNV fall under average level of family bonding and togetherness values category as compared to the students studying in KV. Finally, larger number of students studying in JNV are found under very high level of family bonding and togetherness values as compared to the students studying in KV.

Findings: It is found that the students studying in boarding school (JNV) having higher level of family bonding and togetherness values as compared to the students studying in non-boarding school (KV).

4.2.2 PERCENTAGE ANALYSIS OF RESPECT & OBEDIENCE VALUE OF THE STUDENTS STUDYING IN BOARDING AND NON-BOARDING SCHOOL

Respect and obedience value is considered as the second dimension of the family value in the questionnaire. There is total six items having the item number 2, 15, 18, 22, 23, 26 under this second dimension and the full mark is 16. The sum of the scores of each item under the second dimension represent the respect and obedience value of the students. The range of scores from 0-20%, 21%-40%, 41%-60%, 61%-80% and 81%-100 are categorised as very low, low, average, high and very high respectively. The table 4.4 interprets the number as well as the percentage of students falling under each category.

Table 4.4: Dimension -2, Respect & Obedience Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal

Range of Scores	Levels of Family Values	Number/Percentage of Students of JNV	Number/Percentage of Students of KV
0-20% (0-3)	Very low	0	1 (2)
21%-40% (4-6)	Low	2 (4)	2 (4)
41%-60% (7-9)	Average	9 (18)	19 (38)
61%-80% (10-12)	High	14 (28)	19 (38)
81%-100 (13-15)	Very high	25 (50)	9 (18)

Figures in parenthesis denote percentage

Table 4.4 represents the second dimension of family value i.e. respect and obedience of students studying in boarding and non-boarding central government schools. Above table reveals that students studying in Jawhar Navodaya Vidyalaya having higher value of respect and obedience as compared to Kendriya Vidyalaya. If we analyse the data on the basis of level of family values, we found that 50, 28, 18 and 4 percent of students coming from Jawahar Navodaya Vidyalaya having very high, high, average, and low family values respectively. Whereas, students coming from Kendriya Vidyalaya having 18, 38, 38, 4 and 2 percent of family values ranging from very high, high, average, low and very low respectively. From the analysis of above table value, it can be depicted that family structure, socio-economic status of family and Urbanization may affect the development of values of adolescents.
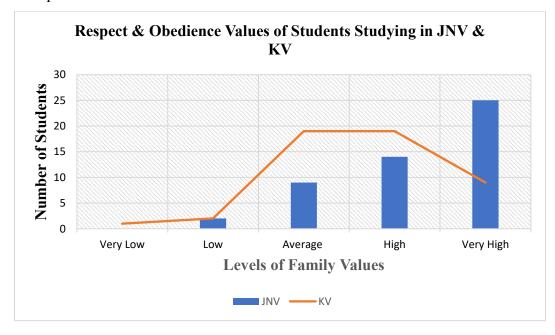

Fig. 4.4: Dimension -2, Respect & Obedience Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal.

The fig 4.4 reveals the respect and obedience values of students studying in boarding and non-boarding schools of Bhopal. In the above bar graph the blue bar column represents the students studying in JNV and the orange line represents the students studying in KV. The X- axis represents the different levels of respect and obedience values i.e. very low, low, average, high, very high whereas the Y-axis represents the number of students falling under each category. The above graph reveals that only one student studying in KV shows very low level of respect and obedience values. The number of students having low level of respect and obedience values are equal in both the schools. The number of students studying in KV are equal under average and high level of respect and obedience values. Under these two same levels, the number of students studying in JNV is less as compared to the number of students studying in KV. At last, greater number of students studying in JNV having very high level of respect and obedience values as compared to the students studying in KV.

Findings: It is found from the above graph that the respect and obedience values are higher in the students studying in boarding school (JNV) as compared to the students studying in non-boarding school (KV).

4.2.3 Percentage Analysis of Responsibility and Decision-Making Value of the Students Studying in Boarding and Non-Boarding School

The third dimension of the family value is considered as the responsibility and decision-making value. There is total eleven items having the item number 3, 5, 10, 11, 13, 14, 17, 20, 24, 25, 28 under this third dimension and the full mark is 26. The sum of the scores of each item under the third dimension represents the responsibility and decision-making value of the students. The range of scores from 0-20%, 21%-40%, 41%-60%, 61%-80% and 81%-100 are categorised as very low, low, average, high and very high respectively. The table 4.5 interprets the number as well as the percentage of students falling under each category.

Table 4.5: Dimension -3, Responsibility and Decision-making Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal

Range of Scores	Levels of Family Values	Number/Percentage of Students of JNV	Number/Percentage of Students of KV
0-20% (0-5)	Very low	0	0
21%-40% (6-10)	Low	1 (2)	0
41%-60% (11-15)	Average	3 (6)	7 (14)
61%-80% (16-20)	High	11 (22)	28 (56)
81%-100 (21-26)	Very high	35 (70)	15 (30)

Figures in parenthesis denote percentage

Table 4.5 represents the third dimension of family value i.e. responsibility and decision making of students studying in boarding and non-boarding central government schools. Above table reveals that students studying in Jawhar Navodaya Vidyalaya having higher value of responsibility and decision making as compared to Kendriya Vidyalaya. If we analyse the data on the basis of level of family values, we found that 70, 22, 6 and 2 percent of students coming from Jawahar Navodaya Vidyalaya having very high, high, average and low family values respectively. Whereas, students coming from Kendriya Vidyalaya having 30, 56 and 14 percent of family values ranging from very high, high and average respectively. On the basis of above analysed data, we conclude that, that family structure, socio-economic status of family and Urbanization may affect the development of family values of adolescents.
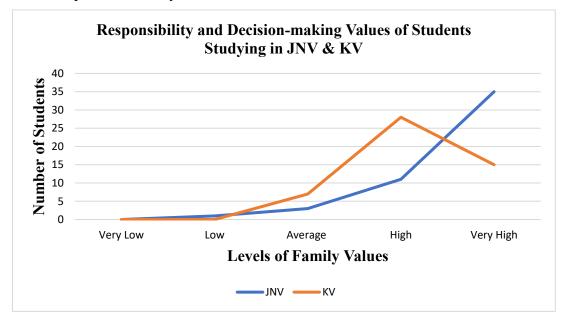

Fig. 4.5: Dimension -3, Responsibility and Decision-making Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal.

In the fig 4.5, the responsibility and decision-making values of the students studying in boarding and non-boarding schools of Bhopal are represented. In this line graph the blue line represents the students studying in JNV and the orange line represents the students studying in KV. The X- axis represents the levels of family values category i.e. very low, low, average, high, very high whereas the Y-axis represents the number of students falling under each category. The above graph represents that no student is found having very low level of respect and obedience values in both the schools. Only one student studying in JNV falls under low level of responsibility and decision-making values whereas there is no student studying in KV falls under the same category. Greater number of students studying in KV are having average and high level of responsibility and decision-making values as compared to the students studying in JNV. In the end, a greater number of students studying in JNV are found under very high level of responsibility and decision-making values as compared to the students studying in KV.

Findings: The above graph reveals that the responsibility and decision-making values are higher in the students studying in boarding school (JNV) as compared to the students studying in non-boarding school (KV).

4.2.4 Percentage Analysis of Family Support and Care Value of the Students Studying in Boarding and Non-Boarding School

The family support and care value is considered as the fourth dimension of the family value in the questionnaire. There is total six items having the item number 4, 6, 7, 12, 21, 29 under this fourth dimension and the full mark is 12. The sum of the scores of each item under the fourth dimension represents the family bonding and togetherness value of the students. The range of scores from 0-20%, 21%-40%, 41%-60%, 61%-80% and 81%-100 are categorised as very low, low, average, high and very high respectively. The table 4.6 interprets the number as well as the percentage of students falling under each category.

Table 4.6: Dimension-4, Family Support and Care Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal

Range of Scores	Levels of Family Values	Number/Percentage of Students of JNV	Number/Percentage of Students of KV
0-20% (0-2)	Very low	0	0
21%-40% (3-5)	Low	2 (4%)	4(8%)
41%-60% (6-7)	Average	4 (8%)	4 (8%)
61%-80% (8-10)	High	17 (34%)	27 (54%)
81%-100 (11-12)	Very high	27 (54%)	15 (30%)

Figures in parenthesis denote percentage

Table 4.6 represents the fourth dimension of family value i.e. support and care of students studying in boarding and non-boarding central government schools. Above table reveals that students studying in Jawhar Navodaya Vidyalaya having higher value of support and care as compared to Kendriya Vidyalaya. If we analyse the data on the basis of level of family values, we found that 54, 34, 8 and 4 percent of students coming from Jawahar Navodaya Vidyalaya having very high, high, average, and low family values respectively. Whereas, students coming from Kendriya Vidyalaya having 30, 54, 8 and 8 percent of family values ranging from very high, high, average, and low respectively. After analysing the above table value, it can be depicted that family structure, socio-economic status of family and Urbanization may affect the development of family values of adolescents.
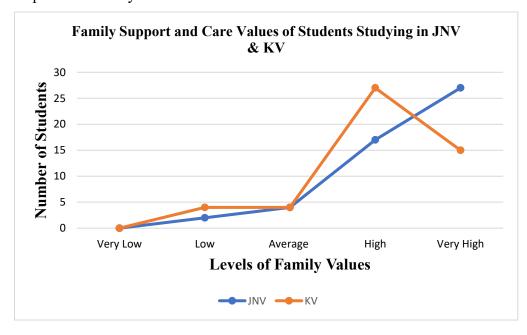

Fig. 4.6: Dimension-4, Family Support and Care Values of Students Studying in Boarding and Non-Boarding Schools of Bhopal

The fig 4.6 represents the support and care values of students studying in boarding and non-boarding schools of Bhopal. In this line graph the blue line represents the students studying in JNV and the orange line represents the students studying in KV. The X-axis represents the levels of support and care values category i.e. very low, low, average, high, very high whereas the Y-axis represents the number of students falling under each category. From the above graph we found that there is no student having very low level of support and care values. The number of students studying in KV are found slightly higher under low level of support and care values. At the average point both line graph coincides which represent the number of students attaining average level of support and care values are equal in both the schools. Greater number of students studying in KV fall under high level of support and care values as compared to the students of JNV. In the end, the number of students studying in JNV are found more under very high level of support and care values as compared to the students of KV.

Findings: The above graph depicts that the support and care values are higher in the students studying in boarding school (JNV) as compared to the students studying in non-boarding school (KV).