Chapter IV

Data Analysis and Interpretation

4.1 Introduction

Data analysis is a process of assessing data using analytical and logical reasoning to examine each element of the data provided. Data is collected from many sources, reviewed, and then examined to form some kind of finding or conclusion. Data analysis is the process of bringing order, structure and meaning to the mass of collected data and then interpreted to making a sense of it. The main aim behind data analysis is to obtain usable and useful information. The analysis, irrespective of whether the data is qualitative or quantitative, describes and summarises the data, identifies relationships between variables, compare variables, identifies the difference between variables and finally predicts result.

Analysis of data means studying the organised material in order to discover inherent facts. Statistical techniques contribute a lot in gathering, organising, analysing and interpretation of data. Post analysis of data, the investigator interprets the results. This is the last step in treatment of data that requires a careful, logical and critical examination of the results obtained after the analysis, keeping in view the limitation of the sample chosen, tools selected and used in the study.

The study was on developing and implementing a module for value inculcation through teaching of Social Science. The study was experimental in nature. A module was developed for value inculcation using integrated approach for teaching of Social Science for secondary level students. The developed module was implemented on one school of standard IX students for one semester of an academic session as described in chapter III. According to the used pretest and posttest nonequivalent control group design in the present study, two different schools were taken one as control group and second as experimental group. The standard IX students were measured in four dimensions of five different values. These dimensions included conceptual knowledge of values, perception of values, value practice and achievement in Social Science. The three dimensions i.e. conceptual knowledge of value, perception of value and achievement in Social Science were measured through pretest and posttest from both control and experimental groups.

To find the effectiveness of the module the collected data were analyzed quantitatively and qualitatively. In the quantitative analysis mean of gain scores, standard deviation, standard error of mean, Mann Whitney U-test and Intensity Indices were used.

The qualitative data was analysed using content analysis. The data analysis and interpretation of conceptual knowledge and perception of values is given under the caption 4.2.3.1, 4.2.3.2. The reaction of experimental group towards different components of the module for value inculcation through teaching of Social Science was taken with the help of a reaction scale. Analysis and interpretation of data related to reaction scale is given under the caption 4.2.4.1 The effectiveness of the module approach was also measured with the help of students' value based behavior which was observed by the teacher in different occasions during school hours. The observations related to different values practices were noted from experimental group which is given under the caption 4.2.4.3. Mostly data are presented in tables which are followed by analysis and interpretation. The details about the analysis and interpretation of data are given as follows.

4.2 Data Analysis and Interpretation:

The analysis of data and interpretation were done objective wise. The focus of the study was on teaching Social Science through developed module for value inculcation. The objectives were related to development of module, to implement the module, to check the effectiveness of the module and to collect the reaction of students on the teaching of Social Science through the developed module.

4.2.1 Data Analysis Pertaining To Objective 1

To develop a module for teaching of Social Science, there was no statistics used for this objective and has been described in detail in Chapter III

4.2.2. Data Analysis Pertaining To Objective 2

"To implement the developed module for teaching of Social Science through integrated approach for the development of values like Equality, Peace, Freedom, Unity, and, Patriotism, along with achievement in Social Science.." There was no statistics used for this objective and has been described in Chapter III.

4.2.3 Data Analysis Pertaining To Objective 3

"To study the effectiveness of the module for teaching Social Science in terms of conceptual knowledge of values, perception of values and value practice of Equality, Peace, Freedom, Unity and Patriotism along with the achievement in Social Science".

The components such as conceptual knowledge of values, perception of values, value practice and achievement in Social Science are taken separately for analysis.

4.2.3.1 Data Analysis Related to Conceptual Knowledge of values

The investigator calculated the mean gain score of the conceptual knowledge from the value knowledge test. It was calculated by taking the difference of the pretest scores and post-test scores of the conceptual knowledge of values of both the experimental group and the control

group in the different values of equality, peace, patriotism, unity and freedom. In this section the analysis of the conceptual knowledge of each value and all values as a whole are taken separately for both the groups. Below presented are the analyses with tables and interpretation.

TABLE 4.1: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE CONCEPTUAL KNOWLEDGE OF EQUALITY.

Value Knowledge of Equality	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	0.8000	0.80516	0.14700
Experimental Group	30	3.6000	0.96847	0.17682

From the table 4.1, it was found that the mean gain score of students for the conceptual knowledge of the value equality of the control group and the experimental group were 0.8000 and 3.6000 respectively. The standard deviation from the gain score for the conceptual knowledge of the value equality in students was found to be 0.80516 and 0.96847 for control group and experimental group respectively. The standard error of mean was 0.14700 and 0.17682 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the experimental group was more heterogeneous than the control group. The higher mean score of experimental group in conceptual knowledge of equality in comparison to control group may be attributed due to the module developed for teachers to inculcate values in students through teaching of Social Science. To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the mean gain scores of the students of control and experimental group of class IX in the conceptual knowledge of the value equality", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.2, which is followed by interpretation.

TABLE: 4.2 SUMMARY OF MANN-WHITNEY U-TEST FOR THE CONCEPTUAL KNOWLEDGE OF EQUALITY FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	480.00	15.000	-6.545	0.000
Experimental Group	30	1350.00			

From the table 4.2, it was found that the sum of ranks of the control group and the experimental group students in the conceptual knowledge of the value equality were 480.00 and 1350.00 respectively with 30 students in each group. The U-value and Z- value were found to be 15.000 and -6.545 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis ($H_{0)}$ of z, for $z \leqslant -6.545$, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis $H_{0,}$ i.e. "there will be no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the conceptual knowledge of the value equality", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their conceptual knowledge of equality. From table 4.1, it was established that the mean gain score of the experimental group were more than the mean gain score of the control group and that could be attributed to the module that was developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that conceptual knowledge of the students in the experimental group was stochastically higher than the students in the control group due to the module developed for teachers to inculcate values in students through teaching of Social Science.

TABLE 4.3: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE CONCEPTUAL KNOWLEDGE OF PEACE.

Value Knowledge of Peace	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	0.7333	0.73968	0.13505
Experimental Group	30	3.5333	0.68145	0.12441

From the table 4.3, it was found that the mean gain score of students for the conceptual knowledge of peace of the control group and the experimental group were 0.7333 and 3.5333 respectively. The standard deviation from the gain score for the conceptual knowledge of peace in students was found to be 0.73968 and 0.68145 for control group and experimental group respectively. The standard error of mean was 0.13505 and 0.12441 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the control group was more heterogeneous than the experimental group. The higher mean score of experimental group in conceptual knowledge of peace in comparison to control group may be attributed due to the module developed for teachers to inculcate values in students through teaching of Social Science.

To find whether the difference in the mean was significant or by chance and to test the null hypothesis $H_{0,}$ i.e. “there will be no significant difference between the mean gain scores of the students of control and experimental group of class IX in the conceptual knowledge of the value peace”, Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.4, which is followed by interpretation.

TABLE 4.4: SUMMARY OF MANN-WHITNEY U-TEST FOR THE CONCEPTUAL KNOWLEDGE OF PEACE FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	470.00	5.000	-6.731	0.000
Experimental Group	30	1360.00			

From the table 4.4, it was found that the sum of ranks of the control group and the experimental group students in the conceptual knowledge of peace were 470.00 and 1360.00 respectively with 30 students in each group. The U-value and Z-value were found to be 5.000 and -6.731 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis ($H_{0)}$ of z, for $z \leqslant -6.731$, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the conceptual knowledge of the value peace", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their conceptual knowledge of peace. From table 4.3 it was established that the mean gain score of the experimental group were more than the mean gain score of the control group and that could be attributed to the module that was developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that the conceptual knowledge of the students in the experimental group was stochastically higher than the students in the control group which was due to the module developed for teachers to inculcate values in students through teaching of Social Science.

TABLE 4.5: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE CONCEPTUAL KNOWLEDGE OF FREEDOM.

Value Knowledge of Freedom	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	0.5333	0.50742	0.09264
Experimental Group	30	3.3333	0.54667	0.09981

From the table 4.5 it was found that the mean gain score of students for the conceptual knowledge of Freedom of the control group and the experimental group were 0.5333 and 3.3333 respectively. The standard deviation from the gain score for the conceptual knowledge of Freedom in students was found to be 0.50742 and 0.54667 for control group and experimental group respectively. The standard error of mean was 0.09264 and 0.09981for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the experimental group was more heterogeneous than the control group. The higher mean score of experimental group in the conceptual knowledge of Freedom in comparison to control group may be due to the module developed for teachers to inculcate values in students through teaching of Social science.

To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the mean gain scores of the students of control and experimental group of class IX in the conceptual knowledge of the value Freedom", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.6, which is followed by interpretation.

TABLE 4.6: SUMMARY OF MANN-WHITNEY U-TEST FOR THE CONCEPTUAL KNOWLEDGE OF FREEDOM FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	465.00	0.000	-6.879	0.000
Experimental Group	30	1365.00			

From the table 4.6, it was found that the sum of ranks of the control group and the experimental group students in the conceptual knowledge of Freedom were 465.00 and 1365.00 respectively with 30 students in each group. The U-value and Z-value were found to be 0.000 and -6.879 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis ($H_{0)}$ of z, for $z \leqslant -6.879$, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference in the mean gain scores of the students of control group and experimental group of class IX in the conceptual knowledge of the value freedom", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their conceptual knowledge of Freedom. From table 4.5 it was established that the mean gain score of the experimental group were more than the mean gain score of the control group and that could be attributed to the module developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that conceptual knowledge of the students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teachers to inculcate values in students through teaching of Social Science.

TABLE 4.7: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE CONCEPTUAL KNOWLEDGE OF PATRIOTISM.

Value Knowledge of Patriotism	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	0.7000	0.70221	0.12821
Experimental Group	30	3.4667	0.50742	0.09264

From the table 4.7, it was found that the mean gain score of students for the conceptual knowledge of Patriotism of the control group and the experimental group were 0.7000 and 3.4667 respectively. The standard deviation from the gain score for the conceptual knowledge of Patriotism in students was found to be 0.70221 and 0.50742 for control group and experimental group respectively.

The standard error of mean was 0.12821 and 0.09264 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the control group was more heterogeneous than the experimental group. The higher mean score of experimental group in the conceptual knowledge of Patriotism in comparison to control group may be due to the module developed for teachers to inculcate values in students through teaching of Social Science.

To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the mean gain scores of the students of control and experimental group of class IX in the conceptual knowledge of the value patriotism", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.8, which is followed by interpretation.

TABLE 4.8: SUMMARY OF MANN-WHITENEY U-TEST FOR VALUE KNOWLEDGE OF PATRIOTISM FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	465.00	0.000	-6.833	0.000
Experimental Group	30	1365.00			

From the table 4.8, it was found that the sum of ranks of the control group and the experimental group students in the conceptual knowledge of Patriotism were 465.00 and 1365.00 respectively with 30 students in each group. The U-value and Z-value were found to be 0.000 and -6.833 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis ($H_{0)}$ of z, for $z \leqslant -6.833$, the two tailed probability was found to be h was 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. “there will be no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the conceptual knowledge of patriotism”, was rejected.

Therefore it was clear that the control group and the experimental group students differed significantly in terms of their conceptual knowledge of patriotism. From table 4.7, it was established that the mean gain score of the experimental group were more than the mean gain score of the control group and that could be attributed to the module developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that the conceptual knowledge of the students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teachers to inculcate values through teaching of Social Science.

TABLE 4.9: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE CONCEPTUAL KNOWLEDGE OF UNITY.

Value Knowledge of Unity	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	0.6667	0.66089	0.12066
Experimental Group	30	3.5333	0.50742	0.09264

From the table 4.9, it was found that the mean gain score of students for the conceptual knowledge of unity of the control group and the experimental group were 0.6667 and 3.5333 respectively. The standard deviation from the gain score for the conceptual knowledge of unity in students was found to be 0.66089 and 0.50742 for control group and experimental group respectively. The standard error of mean was 0.12066 and 0.09264 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the control group was more heterogeneous than the experimental group. The higher mean score of experimental group in the conceptual knowledge of unity in comparison to control group may be due to the module developed for teachers to inculcate values in students through teaching of Social Science.

To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the mean gain scores of the students of control and experimental group of class IX in the conceptual knowledge of the value unity", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.10, which is followed by interpretation.

TABLE 4.10: SUMMARY OF MANN-WHITENEY U-TEST FOR THE CONCEPTUAL KNOWLEDGE OF UNITY FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	465.00	0.000	-6.842	0.000
Experimental Group	30	1365.00			

From the table 4.10, it was found that the sum of ranks of the control group and the experimental group students in the conceptual knowledge of unity were 465.00 and 1365.00 respectively with 30 students in each group. The U-value and z-value were found to be 0.000 and -6.842 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis (H_0) of z, for $z \leq -6.842$, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the conceptual knowledge of the value unity", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their conceptual knowledge of unity. From table 4.9, it was established that the mean gain score of the experimental group were more than the mean gain score of the control group that could be attributed to the module developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that the conceptual knowledge of the students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teachers to inculcate values in students through teaching of Social Science.

TABLE 4.11: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE CONCEPTUAL KNOWLEDGE OF ALL FIVE VALUES AS WHOLE.

Value Knowledge of all Five Values as Whole	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	3.4333	1.50134	0.27411
Experimental Group	30	17.4333	1.54659	0.28237

From the table 4.11, it was found that the mean gain score of students for the conceptual knowledge of all the five values as a whole of the control group and the experimental group were 3.4333 and 17.4333 respectively. The standard deviation from the mean gain score for the conceptual knowledge of all the five values as a whole of students were found to be 1.50134 and 1.54659 respectively for the control group and the experimental group, with standard error of mean of 0.27411 and 0.28237 for the respective groups. Comparing the mean it was found that the mean of the experimental group was higher than the control group. From the standard deviation, it was observed that the experimental group was heterogeneous than the control group. The higher mean score of experimental group in the conceptual knowledge of all the five values as a whole in comparison to the control group may be due to the module developed for teachers to inculcate values in students through teaching of Social Science. To find whether the difference in the mean was significant or by chance and to test the null hypothesis $H_{0,}$ i.e., "there will be no significance difference between the mean gain scores of the students of control and experimental group in the conceptual knowledge of all five values as a whole of class IX students", Mann- Whitney U-Test was used, as the sample was taken by convenience sampling techniques. The summary of the Mann-Whitney U-test is given in table 4.12, which is followed by interpretation.

TABLE 4.12: SUMMARY OF MANN-WHITENEY U-TEST FOR THE CONCEPTUAL KNOWLEDGE OF ALL FIVE VALUES AS WHOLE FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	465.00	0.000	-6.710	0.000
Experimental Group	30	1365.00			

From the table 4.12, it was found that the sum of ranks of the control group and the experimental group students in the conceptual knowledge of all the five values as a whole were 465.00 and 1365.00 respectively with 30 students in each group. The U-value and z-value were found to be 00.000 and -6.710 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis ($H_{0)}$ of z, for $z \leqslant -6.710$, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the conceptual knowledge of all five values as a whole" was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their conceptual knowledge in all the values as whole. From table 4.11, it was established that the mean gain score of the experimental group were more than the mean gain score of the control group and that could be attributed to the module developed for teachers to inculcate values in students through teaching of Social Science. Hence it can be concluded, that the conceptual knowledge of the students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teachers to inculcate values in students through teaching of Social Science.

4.2.3.2 Data Analysis related to Perception of Values.

The investigator calculated the mean gain score of perception of values from the perception scale. It was calculated by taking the difference of the pre-test scores and post-test scores of the perception of values of both the experimental group and the control group in the different values of equality, peace, patriotism, unity and freedom. In this section, the analyses of the perception of values of each value and all values as a whole are taken separately for both the groups. Below presented are the analyses with tables and interpretation.

TABLE 4.13: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR PERCEPTION OF THE VALUE EQUALITY.

Perception of the value Equality	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	0.5333	2.50149	0.45671
Experimental Group	30	7.0333	1.73172	0.31617

From the table 4.13 it was found that the mean gain score of students in the perception of the value equality of the control group and the experimental group were 0.5333 and 7.0333 respectively. The standard deviation from the mean gain score for the perception of the value equality in students was found to be 2.50149 and 1.73172 for control group and experimental group respectively. The standard error of mean was 0.45671 and 0.31617 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the control group was more heterogeneous than the experimental group. The higher mean score of experimental group in the perception of the value equality in comparison to control group may be due to the module developed for teachers to inculcate values in the students through teaching of Social Science.

To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the mean gain scores of the students of control and experimental group of class IX in the perception of the value equality", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.14, which is followed by interpretation.

TABLE 4.14: SUMMARY OF MANN-WHITNEY U-TEST FOR THE PERCEPTION OF THE VALUE EQUALITY FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	482.50	17.500	-6.426	0.000
Experimental Group	30	1347.50			

From the table 4.14, it was found that the sum of ranks of the control group and the experimental group students in the perception of the value equality were 482.50 and 1347.50 respectively with 30 students in each group. The U-value and z value were found to be 17.500 and -6.426 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis (H0) of z, for z⩽= -6.426, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the perception of the value equality", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their value perception of Equality. From table 4.13 it was established that the mean gain score of the experimental group were more than the mean gain score of the control group that could be attributed to the module that was developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that the perception of students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teachers to inculcate values in students through teaching of Social Science.

TABLE 4.15: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE PERCEPTION OF THE VALUE PEACE.

Perception of the value Peace	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	0.1000	2.26442	0.41342
Experimental Group	30	5.2333	2.09570	0.38262

From the table 4.15 it was found that the mean gain score of students in the perception of the value peace of the control group and the experimental group were 0.1000 and 5.2333 respectively. The standard deviation from the mean gain score for the value perception of the value peace in students was found to be 2.26442 and 2.09570 for control group and experimental group respectively. The standard error of mean was 0.41342 and 0.38262 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the control group was more heterogeneous than the experimental group. The higher mean score of experimental group in the perception of the value peace in comparison to control group may be due to module developed for teachers to inculcate values through teaching of Social Science.

To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the gain scores of the students of control and experimental group of class IX in the perception of the value peace", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.16, which is followed by interpretation.

TABLE 4.16: SUMMARY OF MANN-WHITNEY U-TEST FOR THE PERCEPTION OF THE VALUE PEACE FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	501.50	36.500	-6.150	0.000
Experimental Group	30	1328.50			

From the table 4.16, it was found that the sum of ranks of the control group and the experimental group students in the perception of the value peace were 501.50 and 1328.50 respectively with 30 students in each group. The U-value and z-value were found to be 36.500 and -6.150 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis (H0) of z, for z⩽= -6.150, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the perception of the value peace", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their perception of the value peace. From table 4.15 it was established that the mean gain score of the experimental group were more than the mean gain score of the control group that could be attributed to the module developed for the teachers to inculcate values in the students through teaching of Social Science.

Hence it can be concluded, that the perception of students in the experimental group was stochastically higher than the students in the control group which was due to module developed for value inculcation through teaching of Social Science.

TABLE 4.17: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE PERCEPTION OF THE VALUE FREEDOM.

Perception of the value Freedom	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	0.9333	2.50425	0.45721
Experimental Group	30	7.0000	1.87543	0.34241

From the table 4.17 it was found that the mean gain score of students in perception of the value freedom of the control group and the experimental group were 0.9333 and 7.0000 respectively. The standard deviation from the mean gain score for the perception of the value freedom in students was found to be 2.50425 and 1.87543 for control group and experimental group respectively. The standard error of mean was 0.45721 and 0.34241 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the control group was more heterogeneous than the experimental group. The higher mean score of experimental group in perception of the value freedom in comparison to control group may be due to the module developed for teachers to inculcate values in students through teaching of Social Science.

To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the mean gain scores of the students of control and experimental group of class IX in perception of the value freedom", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.18 which is followed by interpretation.

TABLE 4.18: SUMMARY OF MANN-WHITNEY U-TEST FOR THE PERCEPTION OF THE VALUE FREEDOM FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	484.50	19.500	-6.387	0.000
Experimental Group	30	1345.50			

From the table 4.18 it was found that the sum of ranks of the control group and the experimental group students in the perception of the value freedom were 484.50 and 1345.50 respectively with 30 students in each group. The U-value and z- value were found to be 19.500 and -6.387 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis (H0) of z, for z⩽= -6.387, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the perception of the value freedom", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their perception of the value freedom. From table 4.17 it was established that the mean gain score of the experimental group were more than the mean gain score of the control group that could be attributed due to the module developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that the perception of the students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teachers to inculcate values in students through teaching of Social Science.

TABLE 4.19: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE PERCEPTION OF THE VALUE PATRIOTISM.

Perception of the value Patriotism	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	2.0333	2.88257	0.52628
Experimental Group	30	6.0667	1.63861	0.29917

From the table 4.19, it was found that the mean gain score of students in the perception of the value patriotism of the control group and the experimental group were 2.0333 and 6.0667 respectively. The standard deviation from the gain score for the value perception of the value Patriotism in students was found to be 2.88257 and 1.63861 for control group and experimental group respectively. The standard error of mean was 0.52628 and 0.29917 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the control group was more heterogeneous than the experimental group. The higher mean score of experimental group in the perception of the value patriotism in comparison to control group may be due to the module developed for teachers to inculcate values in students through teaching of Social Science. To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the mean gain scores of the students of control and experimental group of class IX in the perception of the value patriotism", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.20, which is followed by interpretation.

TABLE 4.20: SUMMARY OF MANN-WHITNEY U-TEST FOR THE PERCEPTION OF THE VALUE PATRIOTISM FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	570.00	105.000	-5.132	0.000
Experimental Group	30	1260.00			

From the table 4.20 it was found that the sum of ranks of the control group and the experimental group students in the perception of the value were 570.00 and 1260.00 respectively with 30 students in each group. The U-value and z value were found to be 105.000 and -5.132 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis (H0) of z, for z⩽= -5.132, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. “there will be no significant difference between the mean gain scores of the students of control group and experimental group of class IX in the perception of the value patriotism”, was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their perception of the value patriotism. From table 4.19 it was established that the mean gain score of the experimental group were more than the mean gain score of the control group that could be attributed due to the module developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that perception of the students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teachers to inculcate values in students through teaching of Social Science.

TABLE 4.21: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR VALUE PERCEPTION OF UNITY.

Perception of the value Unity	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	1.7333	2.44855	0.44704
Experimental Group	30	5.9667	1.73172	0.31617

From the table 4.21 it was found that the mean gain score of students in the perception of the value unity of the control group and the experimental group were 1.7333 and 5.9667 respectively. The standard deviation from the gain score for the perception of the value unity in students was found to be 2.44855 and 1.73172 for control group and experimental group respectively. The standard error of mean was 0.44704 and 0.31617 for the respective group. Comparing the means it was found that the mean of experimental group was higher than the control group. From the standard deviation it was observed that the control group was more heterogeneous than the experimental group. The higher mean score of experimental group in perception of unity in comparison to control group may be due to the module developed for teachers to inculcate values in students through teaching of Social Science.

To find whether the difference in the mean was significant or by chance and to test the null hypothesis i.e. H_0 "there will be no significant difference between the gain scores of the students of control and experimental group of class IX in the perception of the value unity", Mann-Whitney U-test was used, as the sample was taken by convenience sampling technique. The Summary of the Mann-Whitney U-test is given in table 4.22, which is followed by interpretation.

TABLE 4.22: SUMMARY OF MANN-WHITNEY U-TEST FOR THE PERCEPTION OF THE VALUE UNITY FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	530.00	65.000	-5.727	0.000
Experimental Group	30	1300.00			

From the table 4.22, it was found that the sum of ranks of the control group and the experimental group students in the perception of the value unity were 530.00 and 1300.00 respectively with 30 students in each group. The U-value and z-value were found to be 65.000 and -5.727 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis (H0) of z, for z⩽= -5.727, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference in the mean gain scores of the students of control group and experimental group of class IX in the perception of the value unity", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their perception of Unity. From table 4.21 it was established that the mean gain score of the experimental group were more than the mean gain score of the control group that could be attributed due to the module developed for teachers to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that the perception of the students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teachers to inculcate values through teaching of Social Science.

TABLE 4.23 MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR THE PERCEPTION OF ALL FIVE VALUES AS WHOLE.

Value Perception of all five Values as Whole	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	5.4000	6.91625	1.26273
Experimental Group	30	31.2000	3.40790	0.62219

From the table 4.23, it was found that the mean gain score of students in perception of all the five values as a whole of the control group and the experimental group were 5.4000 and 31.2000 respectively. These standard deviation from the mean gain score for the value perception for all the values as a whole of students were found to be 6.91625 and 3.40790 respectively for the control group and the experimental group with standard error of mean of 1.26273 and 0.62219 for the respective groups. Comparing the mean it was found that the mean of the experimental group was higher than the control group. From the standard deviation, it was observed that the control group was more heterogeneous than the experimental group.

The higher mean score of experimental group in the perception of all the values as a whole in comparison to the control group may be due to the module developed for teachers to inculcate values in students through teaching of Social Science. To find whether the difference in the mean was significant or by chance and to test the null hypothesis H_o, i.e. "there will be no significance difference between the mean gain scores of the students of control and experimental group in the perception of all these values as a whole of class IX students", Mann- Whitney U-Test was used, as the sample was taken by convenience sampling techniques. The summary of the Mann-Whitney U-test is given in table 4.24, which is followed by interpretation.

TABLE 4.24: SUMMARY OF MANN-WHITNEY U-TEST FOR THE PERCEPTION OF ALL FIVE VALUES AS WHOLE FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	465.00	0.000	-6.661	0.000
Experimental Group	30	1365.00			

From the table 4.24, it was found that the sum of ranks of the control group and the experimental group students in the perception of the value as a whole were 465.00 and 1365.00 respectively with 30 students in each group. The U-value and z-value were found to be 0.000 and -6.661 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis (H0) of z, for z⩽= -6.661, the two tailed probability was found to be 0.000 which was lesser than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference between the mean gain scores of the students of control group and experimental group of class in the perception of all five values as a whole", was rejected. Therefore it was clear that the control group and the experimental group students differed significantly in terms of their perception of all the values as whole. From table 4.23 it was established that the mean gain score of the experimental group were more than the mean gain score of the control group that could be attributed to the module that was developed for teaches to inculcate values in students through teaching of Social Science.

Hence it can be concluded, that perception of the students in the experimental group was stochastically higher than the students in the control group which was due to module developed for teacher to inculcate values in students through teaching of Social Science.

4.2.3.3 Data Analysis of value practice

During the course of implementation of the developed module, the teacher of the experimental group observed actions / behaviour based on values exhibited by the students during the school time. The teacher observed the students during their morning assembly time, Social Science class, while performing tasks in the class, recess time, and on the sports ground. The teacher observed that students displayed more unity in class. Those students who did not get involved much with other students were seen interacting with other students in the class. There were three students who when played sports specially the team sports like basketball and football, were seen blaming or complaining against their team mates if they lost or were unable to score points.

It was noticed that those students considerably reduced their complaints and blame against their team mates and were seen motivating them up to do well. The value of unity was seen in these students and the blame game which used to happen before was reduced. The teacher noticed that students showed better cohesive working in group projects, the work was equally divided in the group rather than few students taking the onus of the project on themselves and not involving others. The class showed better unity than the group-ism before. This may be attributed to the module teaching, where equality and unity were one of the values that were taught.

The teacher also observed that whenever there was any kind of light argument between some students in the class or from other classes, the other experimental group students tried to stop their argument by saying the definition of peace and unity. Though this used to be on the lighter note but the fact that these students identified a conflict and saw unity being disturbed made an attempt to stop the argument rather than encouraging or participating in it. The students were heard many times randomly saying the definition of the different values that were taught to them through the module. This clearly showed the impact of the module on the students.

The Republic day, 26 January was celebrated in the school, students are called to school for a small flag hoisting ceremony. It was seen that most of the students of experimental group attended the flag hoisting ceremony barring few. The value of patriotism was clearly demonstrated. In the past the attendance used to be an issue on such days. This may be attributed to the module teaching as patriotism was another value that was taught to the students.

The students also showed good understanding of freedom. Whenever a free class was given to the students with some optional reading to be done, the time was used in talking, having fun in the class or playing pranks on other students. It was observed that more than fifty percent of the students were seriously seen doing their work, though there were more than few students who continued with their talking and wasting time. Freedom used with responsibility was explicitly observed in most of the students.

These were the significant observations made by the teacher. From these observations it can be said that all these value practices shown by the students could have been due to the module used for value inculcation through teaching of Social Science.

4.2.3.4 Data Analysis of Achievement in Social Science

To achieve objective 3 of the study i.e. "To study the effectiveness of the module for teaching Social Science in terms of conceptual knowledge of values, perception of values and value practice of Equality, Peace, Freedom, Unity and Patriotism along with the achievement in Social Science", a test paper was prepared by the investigator to see whether the approach of teaching Social Science through the developed module to inculcate values affected the achievement of students in Social Science. The mean gain scores were calculated by taking the difference of the pre-test scores and post-test scores of achievement test of the students for both the experimental group and the control group. Below is the analysis of achievement in Social Science with tables and interpretation.

TABLE 4.25: MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN OF CONTROL GROUP AND EXPERIMENTAL GROUP FOR ACHIEVEMENT IN SOCIAL SCIENCE

Achievement in Social Science	N	Mean	Standard Deviation	Standard Error of Mean
Control Group	30	11.3667	2.69717	0.49243
Experimental Group	30	12.1667	2.82944	0.51658

From the table 4.25, it was found that mean achievement of students in Social Science of the control group and the experimental group were 11.3667 and 12.1667 respectively. The standard deviations of the achievement of students in Social Science were found to be 2.69717 and 2.82944 respectively for the control group and the experimental group. The standard error of mean was 0.49243 and 0.51658 for the respective groups. Comparing the means of control and experimental group it was found that there was no significant difference between both the groups. From the standard deviation, it was observed that the control group and experimental group were at the equivalent level. The no difference in the mean scores between the control and experimental group may be because of the good teaching practices in both the groups.

TABLE 4.26: SUMMARY OF MANN-WHITNEY U-TEST FOR ACHIEVEMENT IN SOCIAL SCIENCE FOR CONTROL GROUP AND EXPERIMENTAL GROUP STUDENTS WITH THE NUMBER OF SAMPLE, SUM OF RANKS, U-VALUE, AND Z-VALUE AND PROBABILITY.

Students	N	Sum of Ranks	U-Value	Z- Value	Probability(p)
Control Group	30	828.00	363.000	-1.297	0.195
Experimental Group	30	1002.00			

From the table 4.26, it was found that the sum of ranks of the control group and the experimental group students in the Social Science achievement were 828.00 and 1002.00 respectively with 30 students in each group. The U-value and z-value were found to be 363.000 and -1.297 respectively.

Referring the table for normal probability (Table A of Siegel, 1956) under null hypothesis ($H_{0)}$ of z, for $z \leq -1.297$, the two tailed probability was found to be 0.195 which was more than our decided a=0.05. Hence the null hypothesis i.e. "there will be no significant difference between the gain scores of the students of control group and experimental group of class IX in the achievement test of Social Science", was accepted. Therefore it was clear that the control group and the experimental group students did not differ significantly in terms of their achievement in Social Science. From table 4.25, it was established that the mean gain score of the experimental group and control group were not significant which could be attributed to the good quality teaching methods of the teachers.

Hence it can be concluded, that achievement in Social Science of the students in control group and experimental group was not significant due to the good quality teaching method of the teachers teaching Social Science in both the groups.

4.2.4 Data Analysis Pertaining To Objective 4:

"To study the reaction of students towards the developed module", a reaction scale was prepared and used. The data of the reaction scale was analyzed by percentage and intensity indices.

4.2.4.1 Data Analysis of the Reaction Scale

The data pertaining to the reaction of all the students of experimental group on the developed module for inculcation of values through teaching of Social Science was collected. There were 20 items and item had five alternatives mentioned in the scale. The five alternatives ranged from strongly agree, agree, undecided, disagree and strongly disagree. The scores were accordingly distributed. Strongly agree (5), agree (4), undecided (3) and disagree (2) and strongly disagree (1).

The percentage of the responses for each statement and the intensity index were calculated and are given in the table below.

Intensity Index for each statement in the reaction scale was calculated using the formula given below:

$$\textbf{Intensity Index} = \frac{5 \times f1 + 4 \times f2 + 3 \times f3 + 2 \times f4 + 1 \times f5}{N}$$

f 1 = frequency of Strongly Agree; f2 = frequency of Agree;

f3 = frequency of Undecided; f4 = frequency of Disagree

f5 = frequency of Strongly Disagree N = Number of respondents

TABLE: 4.27: INTENSITY INDEX OF REACTION SCALE
SA: Strongly Agree; **A:** Agree; **UD:** Undecided; **DA:** Disagree; **SD:** Strongly Disagree

Sr. No.	Statements	SA %	A %	UN%	DA%	SD%	Intensity Index
1	The value integrated approach for teaching Social Science was new and different from other methods of teaching.	43.33	50	3.33	3.33	0	4.33
2	I was keen to understand the new way of learning Social Science.	33.33	53.33	10	3.33	0	4.16
3	The value integrated approach made the learning of Social Science more interesting and joyful.	43.33	43.33	13.33	0	0	4.3
4	The value integrated approach did not deviate from the content of Social Science and helped me to understand the subject effectively.	23.33	56.67	20	0	0	4.03
5	The examples used to understand the subjects' concepts integrated with values were effective.	36.67	43.33	20	0	0	4.16
6	We always felt that it was a regular subject class integrated with values and not just a value education class.	30	43.33	6.67	10	10	3.73
7	The syllabus of Social Science was completed on time even while teaching with the value integrated approach.	76.67	16.67	3.33	3.33	0	4.66
8	The activities conducted to understand the concepts of various values were interesting.	43.33	50	6.67	0	0	4.36
9	The classroom management was effective even with the participation of students in various activities for learning of different values.	43.33	33.33	20	3.33	0	4.16
10	I was interested in participating in all activities done in class.	46.67	26.67	16.67	10	0	4.1
11	The stories used during the interaction were very interesting and value based.	66.67	30	3.33	0	0	4.63
12	The stories were linked effectively with various values.	66.67	26.67	3.33	3.33	0	4.57
13	The questions asked on different stories were relevant.	33.33	50	16.67	0	0	4.16
14	The explanations on values had clarity.	43.33	43.33	6.67	3.33	3.33	4.2
15	The questions asked on different values were stimulating.	20	63.33	6.67	6.67	3.33	3.9
16	The value integrated approach was helpful to increase my knowledge about different values.	56.67	36.67	6.67	0	0	4.5
17	The value integrated approach was helpful to increase my perception about different values.	43.33	40	6.67	6.67	3.33	4.13
18	The various values discussed in the class helped me to practice these values in daily life.	36.67	46.67	6.67	3.33	6.67	4.03
19	I look forward to my classes because of the new value integrated approach used.	36.67	46.67	10	3.33	3.33	4.1
20	I would want the value integrated approach to be used regularly in Social Science by my teacher.	40	43.33	10	0	6.67	4.1

Average Intensity Index = $\frac{\text{Sum of Intensity Index of all Students}}{\text{Number of Statements}}$

4.2.4.2 Data Interpretation of Reaction Scale:

1) 43.33% of the students strongly agreed, 50% agreed, 3.33% undecided, and 3.33% disagreed on statement No.1, that the value integrated approach for teaching Social Science was different from other methods. The Intensity Index of 4.33 showed that their reaction was favourable.

2) 33.33% of the students strongly agreed, 53.33% agreed, 10% undecided, 3.33% disagreed on statement No.2, that the students was keen to understand the new way of learning Social Science. . The Intensity Index of 4.16 showed that their reaction was favourable.

3) 43.33% of the students strongly agreed, 43.33% agreed and 13.33 % were undecided on statement No.3, that the value integrated approach made the learning of Social Science more interesting and joyful. The Intensity Index of4.3 showed that their reaction was favourable.

4) 23.33% of the students strongly agreed, 56.67% agreed, and 20 % were undecided on statement No.4, that the value integrated approach did not deviate from the content of Social Science and helped them to understand the subject effectively. The Intensity Index of 4.03 showed that their reaction was favourable.

5) 36.67% of the students strongly agreed, 43.33% agreed and 20 % were undecided on statement No.5 that the examples used to understand the subjects' concepts integrated with values were effective. The Intensity Index of 4.16 showed that their reaction was favourable.

6) 30% of the students strongly agreed, 43.33% agreed, 6.67 % were undecided, 10% disagreed and 10% strongly disagreed on statement No.6, that the students always felt that it was a regular subject class integrated with values and not just a value education class. The Intensity Index of 3.73 showed that their reaction was favourable.

7) 76.67% of the students strongly agreed, 16.67% agreed, 3.33% were undecided and 3.33 % disagreed on statement No.7, The syllabus of Social Science was completed on time even while teaching with the value integrated approach. The Intensity Index of 4.66 showed that their reaction was favourable.

8) 43.33% of the students strongly agreed, 50% agreed and 6.67 % were undecided on statement No.6 that the activities conducted to understand the concepts of various values were interesting. The Intensity Index of 4.36 showed that their reaction was favourable.

9) 43.33% of the students strongly agreed, 33.33% agreed, 20% were undecided and 3.33% disagreed on statement No.9, that the classroom management was effective even with the participation of students in various activities for learning of different values. The Intensity Index of 4.16 showed that their reaction was favourable.

10) 46.67% of the students strongly agreed, 26.67% agreed, 16.67% were undecided, and 10 % disagreed on statement No.10, that the students were interested in participating in all activities done in class. The Intensity Index of 4.1 showed that their reaction was favourable.

11) 66.67% of the students strongly agreed, 30% agreed, and 3.33% were undecided on statement No.11, that the stories used during the interaction were very interesting and value based. The Intensity Index of 4.63 showed that their reaction was favourable.

12) 66.67% of the students strongly agreed, 26.67% agreed, 3.33 % undecided and 3.33% disagreed on statement No.12 that the stories were linked effectively with various values. The Intensity Index of 4.57 showed that their reaction was favourable.

13) 33.33% of the students strongly agreed, 50% agreed and 16.67 % were undecided on statement No.13 that the questions asked on different stories were relevant. The Intensity Index of 4.16 showed that their reaction was favourable.

14) 43.33% of the students strongly agreed, 43.33% agreed, 6.67 % undecided, 3.33 % disagreed and 3.33% strongly disagreed on statement No.14, that the explanations on values had clarity. The Intensity Index of 4.2 showed that their reaction was favourable.

15) 20% of the students strongly agreed, 63.33% agreed, 6.67% were undecided, 6.67% disagreed and 3.33% strongly disagreed on statement No.15, that the questions asked on different values were stimulating. The Intensity Index of 3.9 showed that their reaction was not favourable.

16) 57% of the students strongly agreed, 37% agreed and 7 % were undecided on statement No.16 that the value integrated approach was helpful to increase their knowledge about different values. The Intensity Index of 4.5 showed that their reaction was favourable.

17) 43.33% of the students strongly agreed and 40% agreed, 6.67% undecided, 6.67% disagreed and 3.33% strongly disagreed on statement No.17, that the value integrated approach was helpful to increase their perception about different values. The Intensity Index of 4.13 showed that their reaction was favourable.

18) 36.67% of the students strongly agreed, 46.67% agreed, 6.67 % were undecided, 3.33% disagreed and 6.67 % strongly disagreed on statement No.18, that the various values discussed in the class helped them to practice these values in daily life. The Intensity Index of 4.03 showed that their reaction was favourable.

19) 36.67% of the students strongly agreed, 46.67% agreed, 10 % were undecided, 3.33 % disagreed and 3.33% strongly disagreed on statement No.19, that the students looked forward to their classes because of the new value integrated approach used. The Intensity Index of 4.1 showed that their reaction was favourable.

20) 40% of the students strongly agreed, 43.33% agreed, 10% undecided and 6.67% strongly disagreed on statement No.20 that the students would want the value integrated approach to be used regularly in Social Science by their teacher. The Intensity Index of4.1 showed that their reaction was favourable.

Average intensity index score was 4.22 Therefore, it can be said that the students agreed with the above statements.