CHAPTER IV

DATA ANALYSIS & INTERPRETATION

4.1.0 INTRODUCTION

Data analysis is the process of arranging, structuring, and providing context for a substantial amount of data before it is evaluated to make sense of it. Collecting accessible and valuable data is the main goal of data analysis. Statistical procedures are essential for collecting, organizing, analyzing, and interpreting data. The investigator evaluates the data processing outcomes. This chapter presents data, evaluates and interprets it, and then decides, based on hypothesis, how to achieve the predefined objectives.

A strategy was employed to improve creative thinking abilities in secondary school pupils. As described in Chapter III, the method was used for the last six months of 2023–2024 academic year to teach English to one school's standard IX students. The present study is experimental in nature following a quasi-experimental design. The study employed a non-equivalent group design with pretest and post-test, and two different schools were designated as the control and experimental groups. Students of standard IX were assessed on the components of creative thinking skills. Data were collected by the investigator through three tools namely Creative thinking scale, Achievement test and Reaction scale.

An integrated strategy as a method was incorporated and implemented in the teaching learning process of English to enhance the creative thinking among experimental group while the control group was not given any treatment and followed traditional classroom teaching. To study the effectiveness of the developed strategy in terms of developing creative thinking and the reaction of students were developed and validated respectively. To study the effectiveness in terms of achievement in English, the investigator administered the achievement test on both the groups and collected the scores. Creative thinking scale was administered on both the groups. After experimentation, the same creative thinking scale was administered on both the groups and the reaction scale was also conducted on the experimental group to study the effectiveness of strategy in terms of score of creative thinking and reaction of the students respectively.

This chapter is an attempt to present the analysis and interpretation of the data. Objective 1 of the present study i.e. “To develop a strategy for creative thinking among students of standard

IX through teaching of English" led the investigator to develop a strategy for creative thinking among secondary school students. To achieve the objective 2 i.e. "To implement the developed a strategy of creative thinking to enhance among students of standard IX through teaching of English" the experimental group was taught English through the strategy for six months and the control group remained untreated. The effectiveness of the developed strategy was studied through the comparison of post test scores of creative thinking of experimental and control group to achieve the objective 3. To study the effectiveness of the developed strategy in terms of the reaction of students towards the developed strategy, reaction scale was taken by the students of the experimental group to achieve the objective 4. Quantitative analysis of the data was done for the present study.

To achieve objective 3 of the present study i.e. "To study the effectiveness of the developed strategy in terms of developing creative thinking skill among the students of standard IX" and to test the four null hypotheses, a comparison of the post test scores of creative thinking skill of control group and experimental group was made. The investigator used the statistical techniques such as Mean, Standard Deviation (SD), Standard Error of Mean (SE), and Mann-Whitney U-test to achieve this objective. As the present study employed purposive sampling, the parametric statistics will not work to analyze the data. Therefore, Mann-Whitney U test which is non-parametric was used for the quantitative analysis. The comprehensive analysis to achieve objective 3 is detailed through tables 4.1 to 4.8.

To achieve objective 4 of the present study i.e. **"**To study the effectiveness of the developed strategy in terms of the reaction of students towards the developed strategy." The data was collected through a Likert type five point reaction scale and the reaction scale was analyzed using percentage and intensity index (II). The detailed analysis related to this objective is given in table 4.9.

To achieve objective 5 of the present study i.e. "To study the effectiveness of the developed strategy in terms of achievement in English among the students of standard IX" and to test the fifth null hypotheses, a comparison of the pretest and post test scores of achievement test in English of the Experimental group was made. The investigator used the statistical techniques such as Mean, Standard Deviation (SD), and Standard Error of Mean (SE) to achieve this objective.

4.2.0 COMPARISON OF THE POST TEST SCORES OF CREATIVE THINKING SKILL IN FLUENCY COMPONENT

Table 4.1 and Table 4.2 gives the summary of the results arrived at after applying statistical analysis on the scores obtained by the control and experimental groups in the post tests to achieve the objective 3 i.e. “To study the effectiveness of the developed strategy in terms of developing creative thinking among the students of standard IX.” and to test the null hypothesis i.e. “There is no significant difference between the mean fluency score of creative thinking of experimental group and control group.”

Table 4.1: Distribution of Mean, Standard Deviation (SD) and Standard Error of Mean (SE) in Fluency component of Creative Thinking Skill of Experimental Group and Control Group.

Group	N	Mean	SD	STANDARD ERROR OF MEAN
Experimental	30	62.20	9.426	1.721
Control	30	37.00	8.432	1.540

From the table 4.1, it was found that the mean post-test score in fluency component of creative thinking of the experimental group and the control group was found to be 62.20 and 37.00 respectively out of the total score of 100 which is found to be 62% and 37% respectively for different groups. From this, it can be said that the experimental group scored a very high score in the fluency component of creative thinking in comparison to the control group which is not so good. In terms of the standard deviation, the experimental group was found to be 9.426 with standard error of mean of 1.721 whereas the control group was found to be 8.432 with standard error of mean of 1.540. From this data, it can be said that the experimental group students were found to be more homogeneous in the fluency component of creative thinking whereas the control group was not so homogenous in the fluency component of the creative thinking.

Comparing the mean post-test scores in fluency component of creative thinking of experimental and control group, it was found that the mean post-test score of experimental group was higher than the post-test mean score of the control group. There is a difference

between the mean post-test score of the experimental group and the control group and to find whether the difference in the mean score was significant or by chance and to test the null hypothesis. i.e. “There is no significant difference between the mean post-test scores in fluency component of creative thinking between secondary school students those exposed and who were not exposed to the developed strategy.” Mann Whitney U test was used. Table 4.2 gives the detailed analysis of the result of the Mann Whitney U-test.

Table 4.2: Distribution of Mean, Sum of the Ranks (SR), U-Value (U), Z-Value (Z) and Level of Significance of post test score in Fluency component of Creative Thinking of experimental and control group with the N of 30.

Group	**Mean**	**Sum of Ranks**	**U**	**Z**	**Level of Significance (P)**
Experimental	62.20	1351.00	14	-6.450	**.05**
Control	37.00	479.00			

From the table 4.2, it was found that the sum of ranks of the post-test of experimental and control group were 1351 and 479 respectively with 30 students in each group in the fluency component of creative thinking. The U value and Z value were found to be 14 and -6.450. The Z value of -6.450 was found significant at .05 level of significance which was found to be less than the decided significant level i.e. 0.05. It shows that the mean scores of fluency component of creative thinking of the experimental group which was taught through the strategy and the mean scores of fluency component of creative thinking of the control group that remained untreated differ significantly. Thus, the null hypothesis, “There is no significant difference between the mean fluency score of the experimental group and the control group” was rejected. It could be believed that the group taught English through strategy and the group taught English through traditional method, differed significantly in terms of the mean scores in fluency component of creative thinking skill. Hence, it can be said that the experimental group taught through the strategy was significantly effective terms of enhancing fluency component of creative thinking skill among secondary school students.

4.3.0 COMPARISON OF THE POST TEST SCORES OF CREATIVE THINKING SKILL IN FLEXIBILITY COMPONENT

The null hypothesis i.e. "There will be no significant difference between the mean flexibility score of experimental group and control group" was tested to achieve the third objective i.e. "To study the effectiveness of the developed strategy in terms of developing creative thinking and achievement in English among the students of standard IX." Table 4.3 and Table 4.4 gives the summary of the results arrived at after applying statistical analysis on the scores obtained by the control and experimental group.

Table 4.3: Distribution of Mean, Standard Deviation (SD) and Standard Error of Mean (SE) in Flexibility component of Creative Thinking skill of Experimental Group and Control Group.

Group	N	Mean	SD	STANDARD ERROR OF MEAN
Experimental	**30**	**48.50**	**8.601**	**1.570**
Control	**30**	**24.30**	**9.484**	**1.731**

From the table 4.3, it was found that the mean post-test score in flexibility component of creative thinking of the experimental group and the control group was found to be 48.50 and 24.30 out of the total score of 100 which is found to be 48.5 % and 24.3% respectively for different groups. From this, it can be said that the experimental group scored a very high score in the flexibility component of creative thinking in comparison to the control group which is not so good. In terms of the standard deviation, the experimental group was found to be 8.601 with the standard error of mean of 1.570 whereas the control group was found to be 9.484 with the standard error of mean of 1.731. From this data, it can be said that the experimental group students were found to be homogeneous in the flexibility component of creative thinking whereas the control group was more homogenous in the flexibility component of the creative thinking.

Comparing the mean post-test scores in flexibility component of creative thinking of experimental and control group, it was found that the mean post-test score of experimental group was higher than the post-test mean score of the control group. There is a difference

between the mean post-test score of the experimental group and the control group and to find whether the difference in the mean score was significant or by chance and to test the null hypothesis. i.e. “There is no significant difference between the mean post-test scores in flexibility component of creative thinking between secondary school students those exposed and who were not exposed to the developed strategy.” Mann Whitney U test was used. Table 4.4 gives the detailed analysis of the result of the Mann Whitney U-test.

Table 4.4: Distribution of Mean, Sum of the Ranks (SR), U-Value (U), Z-Value (Z) and Level of Significance of post test score in Flexibility component of the creative thinking of experimental and control group with the N of 30.

Group	**Mean**	**Sum of Ranks**	**U**	**Z**	**Level of Significance(P)**
Experimental	48.50	1328.50	36.500	-6.118	**.05**
Control	24.30	501.50			

From the table 4.4, it was found that the sum of ranks of the post-test of experimental and control group were 1328.50 and 501.50 respectively with 30 students in each group in the flexibility component of creative thinking. The U value and Z value were found to be 36.500 and -6.118. The Z value of -6.118 was found significant at .05 level of significance which was found to be less than the decided significant level i.e. 0.05. It shows that the mean scores of fluency component of creative thinking of the experimental group which was taught through the strategy and the mean scores in flexibility component of creative thinking of the control group that remained untreated differ significantly. Thus, the null hypothesis, “There is no significant difference between the mean flexibility score of the experimental group and the control group” was rejected. It could be believed that the group taught English through strategy and the group taught English through traditional method, differed significantly in terms of the mean scores in flexibility component of creative thinking skill. Hence, it can be said that the experimental group taught through the strategy was significantly effective terms of enhancing flexibility component of creative thinking skill among secondary school students.

4.4.0 COMPARISON OF THE POST TEST SCORES OF CREATIVE THINKING SKILL IN ORIGINALITY COMPONENT

The null hypothesis i.e. “There is no significant difference between the mean originality score of experimental group and control group” was tested to achieve the third objective i.e. “To study the effectiveness of the developed strategy in terms of developing creative thinking among the students of standard IX.” Table 4.5 and Table 4.6 gives the summary of the results arrived at after applying statistical analysis on the scores obtained by the control and experimental group.

Table 4.5: Distribution of Mean, Standard Deviation (SD) and Standard Error of Mean (SE) in Originality component of Creative Thinking skill of Experimental Group and Control Group.

Group	N	Mean	SD	STANDARD ERROR OF MEAN
Experimental	30	38.83	9.840	1.797
Control	30	11.40	5.137	.938

From the table 4.5, it was found that the mean post-test score in originality component of creative thinking of the experimental group and the control group was found to be 38.83 and 11.40 out of the total score of 100 which was found to be 38.83 % and 11.40 % respectively for different groups. From this, it can be said that the experimental group scored a very high score in the originality component of creative thinking in comparison to the control group which is not so good. In terms of the standard deviation, the experimental group was found to be 9.840 with the standard error of mean of 1.797 whereas the control group was found to be 5.137 with the standard error of mean of .938. From this data, it can be said that the experimental group students were found to be more homogeneous in the originality component of creative thinking whereas the control group was less homogenous in the originality component of the creative thinking.

Comparing the mean post-test scores in originality component of creative thinking of experimental and control group, it was found that the mean post-test score of experimental group was higher than the post-test mean score of the control group. There is a difference

between the mean post-test score of the experimental group and the control group and to find whether the difference in the mean score was significant or by chance and to test the null hypothesis. i.e. “There is no significant difference between the mean post-test scores in originality component of creative thinking between secondary school students those exposed and who were not exposed to the developed strategy.” Mann Whitney U test was used. Table 4.6 gives the detailed analysis of the result of the Mann Whitney U-test.

Table 4.6: Distribution of Mean, Sum of the Ranks (SR), U-Value (U), Z-Value (Z) and Level of Significance of post test score in Originality component of the Creative Thinking skill of experimental and control group with the N of 30.

Group	**Mean**	**Sum of Ranks**	**U**	**Z**	**Level of Significance(P)**
Experimental	38.83	1359.00	6.000	-6.573	.05
Control	11.40	471.00			

From the table 4.6, it was found that the sum of ranks of the post-test of experimental and control group were 1359.00 and 471.00 respectively with 30 students in each group in the originality component of creative thinking. The U value and Z value were found to be 6.000 and -6.573. The Z value of -6.573 was found significant at .05 level of significance which was found to be less than the decided significant level i.e. 0.05. It shows that the mean scores of originality component of creative thinking of the experimental group which was taught through the strategy and the mean scores in originality component of creative thinking of the control group that remained untreated differ significantly. Thus, the null hypothesis, “There is no significant difference between the mean originality score of the experimental group and the control group” was rejected. It could be believed that the group taught English through strategy and the group taught English through traditional method, differed significantly in terms of the mean scores in originality component of creative thinking skill. Hence, it can be said that the experimental group taught through the strategy was significantly effective terms of enhancing originality component of creative thinking skill among secondary school students.

4.5.0 COMPARISON OF THE PRETEST AND POST TEST SCORES OF CREATIVE THINKING SKILL BETWEEN THE EXPERIMENTAL GROUP AND THE CONTROL GROUP

The null hypothesis i.e. "There is no significant difference between the total mean score of creative thinking of the experimental group and control group" was tested to achieve the third objective i.e. "To study the effectiveness of the developed strategy in terms of developing creative thinking among the students of standard IX." Table 4.7 and Table 4.8 gives the summary of the results arrived at after applying statistical analysis on the scores obtained by the control and experimental group.

Table 4.7: Distribution of Mean, Standard Deviation (SD) and Standard Error of Mean (SE) of Creative Thinking Skill Score of Experimental Group and Control Group

Groups	N	**Mean**	**SD**	**STANDARD ERROR OF MEAN**
Experimental group	**30**	**149.53**	**24.57**	**4.487**
Control Group	**30**	**72.70**	**19.55**	**3.570**

From the table 4.7, it was found that the mean post-test score of creative thinking skill of the experimental group and the control group was found to be 149.53 and 24.57 respectively out of the total score of 300 which is found to be 49.84 % and 24.23 % respectively for different groups. From this, it can be said that the experimental group scored a very high score in the creative thinking skill in comparison to the control group which is not so good. In terms of the standard deviation, the experimental group was found to be 24.57 with standard error of mean of 4.487 whereas the control group was found to be 19.55 with standard error of mean of 3.570. From this data, it can be said that the experimental group students were found to be homogeneous in the overall creative thinking skill whereas the control group was not so homogenous in the overall creative thinking.

Comparing the mean post-test scores of creative thinking skill of experimental and control group, it was found that the mean post-test score of experimental group was higher than the post-test mean score of the control group. There is a difference between the mean post-test score of the experimental group and the control group and to find whether the difference in

the mean score was significant or by chance and to test the null hypothesis. i.e. “There is no significant difference between the mean post-test scores of creative thinking between secondary school students those exposed and who were not exposed to the developed strategy.” Mann Whitney U test was used. Table 4.8 gives the detailed analysis of the result of the Mann Whitney U-test.

Table 4.8: Distribution of Mean, Sum of the Ranks (SR), U-Value (U), Z-Value (Z) and Level of Significance of the creative thinking of experimental and control group with the N of 30.

Group	**Mean**	**Sum of Ranks**	**U**	**Z**	**Level of Significance(P)**
Experimental	149.53	1355.00	10	-6.506	.05
Control	72.70	475.00			

From the table 4.8, it was found that the sum of ranks of the post-test scores of experimental and control group were 1355.00 and 475.00 respectively with 30 students in each group in the creative thinking skill. The U value and Z value were found to be 10 and -6.506. The Z value of -6.506 was found significant at .05 level of significance which was found to be less than the decided significant level i.e. 0.05. It shows that the mean scores of creative thinking skill of the experimental group which was taught through the strategy and the mean scores of creative thinking skill of the control group that remained untreated differ significantly. Thus, the null hypothesis, “There is no significant difference between the mean creative thinking skill score of the experimental group and the control group” was rejected. It could be believed that the group taught English through the developed strategy and the group taught English through traditional method, differed significantly in terms of the mean scores of creative thinking skill. Hence, it can be said that the experimental group taught through the strategy was significantly effective terms of enhancing creative thinking skill among secondary school students.

4.6.0 COMPARISON OF THE POST TEST SCORES OF ACHIEVEMENT TEST IN ENGLISH OF THE EXPERIMENTAL GROUP AND CONTROL GROUP

The null hypothesis i.e. “There is no significant difference between the post test scores of the achievement test in English of the experimental group and control group” was tested to achieve the fourth objective i.e. “To study the effectiveness of the developed strategy in terms of the achievement test in English among the students of standard IX.” Table 4.9 gives the summary of the results arrived at after applying statistical analysis on the scores obtained by the experimental group.

Table 4.9: Mean, Standard Deviation (SD) and Standard Error of Mean (SE) wise Distribution of Achievement in English of the Experimental Group and Control Group.

Achievement Test	Mean	SD	STANDARD ERROR OF MEAN
Experimental Group	**29.1**	**7.39**	**1.350**
Control Group	**14.3**	**5.34**	**1.289**

From the table 4.9, it can be seen that the mean post-test score of Achievement in English of the experimental group was found to be 29.1 out of the total score of 30 which is found to be 97%. From this, it can be said that the posttest mean score of the Achievement in English was very effective as compared to the post test score of the Achievement in English of control group which is due to the integration of the developed strategy. In terms of the standard deviation, the post test score was found to be 7.394 with standard error of mean of 1.350 whereas the post test score of the control group was found to be 5.34 with standard error of mean of 1.289. From this data, it can be said from the posttest mean score that the experimental group of students were found to be homogeneous in the Achievement in English. Hence, it can be concluded that the integration of the developed strategy in the teaching of English had no adverse effect in the Achievement of English.

Table 4.10: Distribution of Mean, Sum of the Ranks (SR), U-Value (U), Z-Value (Z) and Level of Significance of the Achievement in English of experimental and control group with the N of 30.

Group	Mean	Sum of Ranks	U	Z	Level of Significance(P)
Experimental	14.333	514.5	49.5	-5.931	.05
Control	29.133	1315.50			

From the table 4.10, it was found that the sum of ranks of the post-test scores of experimental and control group were 514.5 and 1315.50 respectively with 30 students in each group in the achievement test. The U value and Z value were found to be 49.5 and -5.931. The Z value of -5.931 was found significant at .05 level of significance which was found to be less than the decided significant level i.e. 0.05. It shows that the mean scores of achievement test of the experimental group which was taught through the strategy and the mean scores of achievement test scores of the control group that remained untreated differ significantly. Thus, the null hypothesis, "There is no significant difference between the mean achievement test scores of the experimental group and the control group" was rejected. It could be believed that the group taught English through the developed strategy and the group taught English through traditional method, differed significantly in terms of the mean scores of achievement test. Hence, it can be said that the experimental group taught through the strategy was significantly effective terms of enhancing achievement test scores among secondary school students.

4.7.0 EFFECTIVENESS OF THE STRATEGY IN TERMS OF THE REACTIONS OF STUDENTS

To achieve objective 5 of the present study i.e. "To study the effectiveness of the developed strategy in terms of the reaction of students towards the developed strategy." The data pertaining to the reaction of all the students of experimental group who were taught through the developed strategy to enhance creative thinking was collected. The five alternatives ranged from Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. The scores were as follows: Strongly Agree (5), Agree (4), Undecided (3), Disagree (2), Strongly Disagree (1). The percentage of responses to each statement was calculated, as well as the intensity index. Collected data were analyzed using percentage and intensity index (II) which is given and analyzed in table 4.10.

Table 4.11: Summary of the Reactions of the Students towards the Statements related to the Developed Strategy to Enhance Creative Thinking Skill in terms of Percentage Response and Intensity Index (II)

No	Statement	SA	A	UD	DA	SDA	II
1	I liked teaching of English through the strategies.	56.66	40	3.33	0	0	4.53
2	Teaching through these strategies is interesting than regular classroom teaching.	56.66	36.66	6.66	0	0	4.5
3	Teaching through these strategies helped me to understand English better.	66.66	33.33	0	0	0	4.66
4	SCAMPER questions helped me a lot to think out of the box.	13.33	50	36.67	0	0	3.76
5	Working in group during brainstorming was interesting.	50	46.66	3.33	0	0	4.66
6	I liked the activities as it build confidence in my thinking process.	40	56.66	3.33	0	0	4.36
7	We can have variety of ideas for a problem when we work in the group.	50	36.66	13.33	0	0	4.36
8	I liked the way in which we relate creative ideas to solve the problems.	33.33	50	16.67	0	0	4.16
9	Presentation of ideas in front of the class improved my communication skill.	36.66	50	13.33	0	0	4.23
10	The strategies used to teach the content helped us to think creatively.	26.66	63.33	10	0	0	4.16
11	We are encouraged to share our experience related to concerned topic in the classroom.	46.66	40	13.33	0	0	4.33
12	Concept mapping is a good way to summarize and conclude the concept.	43.33	46.66	3.33	6.67	0	4.26
13	Sufficient time was provided to think in the group.	26.66	53.33	16.67	3.33	0	3.76
14	I am able to think creatively whenever I have to solve a problem.	26.66	56.66	13.33	3.33	0	4.06
15	I liked making creative projects in the classroom.	60	33.33	3.333	3.33	0	4.5
16	I liked the discussion generated while generating creative ideas.	26.66	60	10	3.33	0	4.1
17	The strategies helped me to think differently while solving a problem.	40	53.33	6.66	0	0	4.33
18	Brainstorming helped me to think beyond the textbook to enhance creatively.	26.66	56.66	16.67	0	0	4.1
19	We are always encouraged to think beyond the textbook in the teaching of English.	40	56.66	3.333	0	0	4.36

20	It created a creative environment in the class.	63.33	30	6.66	0	0	4.56
	Overall						**4.28**

4.7.1 Data Interpretation of Reaction Scale

For the statement 1 i.e. **"I like teaching of English through the strategies",** 56.66% of the students strongly agreed, 40% of the students agreed and 3.33% of the students undecided. The intensity index of 4.53 shows the favorable reaction of the students towards the integrated strategy through teaching of English was liked during the treatment phase and was interesting to them.

For the statement 2 i.e. **"Teaching through these strategies is interesting than regular classroom teaching",** 56.66% of the students strongly agreed, 36.66% of students agreed and 3.33% of the students undecided. The intensity index of 4.5 shows that the reaction was favorable towards the strategies used in teaching of English and the classroom teaching learning process was made interesting and engaging.

For the statement 3 i.e. **"Teaching through these strategies helped me to understand English better"**, 66.66% of the students strongly agreed, 33.33% of students agreed. The intensity index of 4.66 showed that their reaction was favorable towards the strategies which helped in understanding the language better.

For the statement 4 i.e. **"SCAMPER questions helped me a lot to think out of the box"**, 13.33% of the students strongly agreed, 50% of students agreed and 36.67% of the students undecided. The intensity index of 3.76 showed that their reaction was favorable towards the activity which helped them to think out of the box.

For the statement 5 i.e. **"Working in group during brainstorming was interesting"**, 50% of the students strongly agreed, 46.66% of students agreed and 3.33% of the students undecided. The intensity index of 4.66 showed that their reaction was favorable towards the group activity which helped them to think differently.

For the statement 6 i.e. **"I liked the activities as it build confidence in my thinking process"**, 40% of the students strongly agreed, 56.66% of students agreed and 3.33% of the students undecided. The intensity index of 3.76 showed that their reaction was favorable towards the activity which helped them to think out of the box.

For statement 7 i.e. **"We can have variety of ideas for a problem when we work in the group"**, 50% of the students strongly agreed, 36.66% of students agreed and 13.33% of the students undecided. The intensity index of 4.36 showed that their reaction was favorable towards the activity which helped them to have variety of ideas for a problem when discussed in the group.

For statement 8 i.e. **"I liked the way in which we relate creative ideas to solve the problems"**, 33.33% of the students strongly agreed, 50% of students agreed and 16.67% of the students undecided. The intensity index of 4.16 showed that their reaction was favorable towards creative ideas which helped them to solve a problem.

For statement 9 i.e. **"Presentation of ideas in front of the class improved my communication skill"**, 36.66% of the students strongly agreed, 50% of students agreed and 13.33% of the students undecided. The intensity index of 4.23 showed that their reaction was favorable towards the improvement of communication skill with presentation of ideas in front of the class.

For statement 10 i.e. **"The strategies used to teach the content helped us to think creatively"**, 26.66% of the students strongly agreed, 63.33% of students agreed and 10% of the students undecided. The intensity index of 4.16 showed that their reaction was favorable towards the strategies used in teaching of English to think creatively.

For statement 11 i.e. **"We are encouraged to share our experience related to concerned topic in the classroom"**, 46.66% of the students strongly agreed, 40% of students agreed and 13.33% of the students undecided. The intensity index of 4.33 showed that their reaction was favorable towards the sharing of experiences relating the topic in the classroom.

For statement 12 i.e. **"Concept mapping is a good way to summarize and conclude the concept"**, 43.33% of the students strongly agreed, 46.66% of students agreed and 3.33% of the students undecided. The intensity index of 4.26 showed that their reaction was favorable towards concept mapping strategy.

For statement 13 i.e. **"Sufficient time was provided to think in the group"**, 26.66% of the students strongly agreed, 53.33% of students agreed and 16.67% of the students undecided. The intensity index of 3.76 showed that their reaction was favorable towards the time given was sufficient to think creatively in the group.

For statement 14 i.e. **"I am able to think creatively whenever I have to solve a problem"**, 26.66% of the students strongly agreed, 56.66% of students agreed and 13.33% of the students undecided. The intensity index of 4.06 showed that their reaction was favorable towards the ability of solving problem creatively.

For statement 15 i.e. **"I liked making creative projects in the classroom"**, 60% of the students strongly agreed, 33.33% of students agreed and 3.33% of the students undecided. The intensity index of 4.5 showed that their reaction was favorable towards the likeness in making creative projects in the classroom.

For statement 16 i.e. **"I liked the discussion generated while generating creative ideas"**, 26.66% of the students strongly agreed, 60% of students agreed and 10% of the students undecided. The intensity index of 4.1 showed that their reaction was favorable towards the likeness of discussion generated while generating creative ideas.

For statement 17 i.e. **"The strategies helped me to think differently while solving a problem"**, 40% of the students strongly agreed, 53.33% of students agreed and 6.66% of the students undecided. The intensity index of 4.33 showed that their reaction was favorable towards the strategies has helped to think differently while solving a problem.

For statement 18 i.e. **"Brainstorming helped me to think beyond the textbook to enhance creatively"**, 26.66% of the students strongly agreed, 56.66% of students agreed and 16.67% of the students undecided. The intensity index of 4.1 showed that their reaction was favorable towards the improvement in thinking creatively by brainstorming which has helped to think beyond the text.

For statement 19 i.e. **"We are always encouraged to think beyond the textbook in the teaching of English"**, 40% of the students strongly agreed, 56.66% of students agreed and 3.33% of the students undecided. The intensity index of 4.36 showed that their reaction was favorable towards the motivation to think beyond the textbook in the teaching of English.

For statement 20 i.e. **"It created a creative environment in the class"**, 63.33% of the students strongly agreed, 30% of students agreed and 6.66% of the students undecided. The intensity index of 4.56 showed that their reaction was favorable towards the positivity of creative environment in the teaching of English.

In terms of the overall reaction of students towards the developed strategy, **the average Intensity Index (II) was found to be 4.28** which reflected a strongly favorable reaction of the students towards the developed strategy through which experimental group was taught to enhance their creative thinking through teaching of English. The positive reaction suggests that the strategies were effective in maintaining students' interest, facilitating productive, creative, and critical thinking without causing disengagement. Out of 20 statements, 14 got strongly favorable reaction and 6 got favorable reaction towards developed strategy. It showed overall strongly favorable reaction towards developed strategy that indicates that it was found effective in enhancing creative thinking among secondary school students through teaching of English. It also indicates the generic nature of teaching of language. Students also showed strongly favorable reaction towards techniques used in the classroom. It can be concluded that the integrated strategies were well-received and contributed to a positive learning environment, aligning with the objectives of the lesson.

4.8.0 CONCLUSION

This chapter carried out the data analysis for the specific hypothesis, evaluating the efficacy of the integrated strategy in terms of student reaction, academic success, and creative thinking. The analysis's findings showed that the integrated approach effectively encouraged students to think creatively. Furthermore, it was discovered that the method worked well for encouraging both critical and creative thinking. Crucially, this integrated method of teaching subject matter fosters creative thinking without having a detrimental effect on student performance.