

CHAPTER V
ANALYSIS & INTERPRETATION OF
DATA

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5.0 INTRODUCTION

This Chapter presents the detailed analysis and interpretation of the data collected for studying the effectiveness of the developed software package. The details of the plan and procedures of the selection of lessons and development of the package have been presented in Chapter III. Followed by this in Chapter IV is the analysis of content and development of the Package as per objective one. The analysis of data pertaining to the effectiveness of the Package is carried out as per objective two, three and four and presented as under.

5.1 EFFECTIVENESS OF THE PACKAGE ON STUDENTS' ACHIEVEMENT

The second objective of the study is to study the effectiveness of the Computer- Assisted English Language Teaching Programme on students' Achievement in terms of Vocabulary, Grammar and Comprehension by taking IQ and Pre-test as covariate. The scores of Pre-test, Post-test, IQ, Motivation and Attitude of the Experimental group, Rosary school are given in Appendix (XI). Scores of Pre-test, Post-test, IQ, and Motivation of the Control group are presented in Appendix (XII).

For finding out the effectiveness of the Computer Assisted English Language Teaching Programme on students' Achievement in terms of Vocabulary, Grammar and Comprehension, students of Experimental and Control group were given a Post-Achievement test. The scores of the Post-Achievement test were subjected to Analysis of Covariance while taking IQ and Pre-test as covariate separately. The details have been discussed as follows.

5.1.1 ACHIEVEMENT IN VOCABULARY BY TAKING IQ AS COVARIATE

One of the objectives for which the Package is developed was to enhance the English Vocabulary of students. It is supposed that IQ is one of the main factors that determines the students' learning. As it was not possible to control the impact of this variable on the learning of Vocabulary by students through the Package, ANCOVA was used to partial out the impact of IQ on students' learning of Vocabulary in the Package. Table-5.1 presents the summary of the ANCOVA for students' Achievement scores in Vocabulary taking IQ as covariate.

TABLE-5.1

SUMMARY OF THE ANCOVA FOR STUDENTS' ACHIEVEMENT SCORES IN VOCABULARY TAKING IQ AS COVARIATE

Sources of Variance	DF	SS	MSS	F-Value
Among Group	1	1245.99	311.50	14.81 F-value significant at 0.01 level
Within Group	109	2292.61	21.03	
Total	110	3538.60		

The Adjusted mean for the 1st group (Experimental)= 14.2770
 The Adjusted mean for the 2nd group (Control)= 7.4714

From table-5.1, it can be seen that the F-value is 14.81 and is significant at 0.01 level with df 1/109. Therefore, hypothesis No. 1 that "there will be no significant difference between the adjusted Mean Achievement scores of the Experimental group and the Control group students in Vocabulary by taking IQ as covariate" is rejected. It means that the Mean Achievement of students in Vocabulary differ significantly when their Mean Achievement scores were adjusted with respect to their IQ. This shows that a significant difference exists between the Mean Achievement scores of the Experimental group and Control group students in Vocabulary. This result indicates that students' learning of vocabulary has been favourably influenced by the developed Computer package.

5.1.2 ACHIEVEMENT IN VOCABULARY BY TAKING PRE-TEST AS COVARIATE

It is supposed that Entry level Behaviour of the students is one of the main factors that determines the students' learning. As it was not possible to control the impact of this Entry level Behaviour on the learning of Vocabulary by students through the Package, ANCOVA was used to partial out the impact of the Entry level Behaviour on students' learning of Vocabulary in the Package. Table-5.2 presents the summary of the ANCOVA for students' Achievement scores in Vocabulary taking Pre-test as covariate.

TABLE-5.2

SUMMARY OF THE ANCOVA FOR STUDENTS' ACHIEVEMENT SCORES IN VOCABULARY TAKING PRE-TEST AS COVARIATE

Sources of Variance	DF	SS	MSS	F.Value
Among Group	1	1017.74	254.44	13.50
Within Group	109	2054.93	18.85	F-value significant at 0.01 level
Total	110	3072.68		

The Adjusted mean for the 1st group (Experimental)= 14.2210
 The Adjusted mean for the 2nd group (Control)= 7.7849

From table-5.2, it can be seen that the F-value is 13.50 and is significant at 0.01 level with df 1/109. Therefore, hypothesis No.2 that "there will be no significant difference between the adjusted Mean

Achievement scores of the Experimental group and the Control group students in Vocabulary by taking Pre-test as covariate" is rejected. It means that the Mean Achievement of students in Vocabulary differ significantly when their Mean Achievement scores were adjusted with respect to their Pre-test. This shows that a significant difference exists between the Mean Achievement scores of the Experimental group and the Control group students in Vocabulary. This result matched the result reported by Kang (1994) in his study to examine the effectiveness of computer-based, context embedded approaches to second language vocabulary learning in comparison with conventional instructions strategies. His study strongly suggest that the proposed context-embedded approach to second language vocabulary learning was most effective in promoting knowledge transfer, listening comprehension and long term recall vocabulary definitions. The entry level behaviour may have not had an impact on the students' learning in Vocabulary. But it seems, because of the package itself the students have learned Vocabulary better than the Control group.

5.1.3 ACHIEVEMENT IN GRAMMAR BY TAKING IQ AS COVARIATE

The second objective of the Package was to enhance the English Grammar learning of students. It is believed that

IQ is one of the major factors that determines the students' learning. As it was not possible to control the impact of this variable on the learning of Grammar by students through the Package, ANCOVA was used to partial out the impact of IQ on students' learning of Grammar in the Package. Table-5.3 presents the summary of the ANCOVA for students' Achievement scores in Grammar taking IQ as covariate.

TABLE-5.3

SUMMARY OF THE ANCOVA FOR STUDENTS' ACHIEVEMENT SCORES IN GRAMMAR TAKING IQ AS COVARIATE

Sources of Variance	DF	SS	MSS	F.Value
Among Group	1	889.62	222.40	4.99 F-value significant at 0.05 level
Within Group	109	4854.46	44.54	
Total	110	5744.08		

The Adjusted mean for the 1st group (Experimental)= 42.9879
The Adjusted mean for the 2nd group (Control)= 37.2374

From table-5.3, it can be seen that the F-value is 4.99 and is significant at 0.05 level with df 1/109. Therefore, hypothesis No.3 that "there will be no significant difference between the adjusted Mean Achievement scores of the Experimental group and the Control group students in Grammar taking IQ as covariate" is rejected. It means that the Mean Achievement of

students in Grammar differ significantly when their Mean Achievement scores were adjusted with respect to their IQ. This shows that a significant difference exists between the Mean Achievement scores of the Experimental group and Control group students in grammar. This result shows that by taking out the influence of IQ the remaining difference is significant. As the students have gone through the computer package by themselves and at their own pace without the teacher being directly involved may have been the reason for the significant difference in grammar learning. When students are given time and freedom to learn and are supported by a friendly atmosphere they prove to be better learners.

5.1.4 ACHIEVEMENT IN GRAMMAR BY TAKING PRE-TEST AS COVARIATE

Entry level Behaviour of the students is believed to be one of the major factors that determines the students' achievement. As it was not possible to control the impact of this Entry level Behaviour on the learning of Grammar by students through the Package, ANCOVA was used to partial out the impact of the Entry level behaviour on students' learning of Grammar in the Package. Table-5.4 presents the summary of the ANCOVA for students' Achievement scores in Grammar taking Pre-test as covariate.

TABLE-5.4

SUMMARY OF THE ANCOVA FOR STUDENTS' ACHIEVEMENT SCORES IN GRAMMAR TAKING PRE-TEST AS COVARIATE

Sources of Variance	DF	SS	MSS	F.Value
Among Group	1	455.77	113.94	4.06
Within Group	109	3056.22	28.04	F-value significant at 0.05 level
Total	110	3511.99		

The Adjusted mean for the 1st group (Experimental)= 42.6847
 The Adjusted mean for the 2nd group (Control)= 38.1012

It can be seen from table-5.4, that the F-value is 4.06 and is significant at 0.05 level with df 1/109. Therefore, hypothesis No.4 that "there will be no significant difference between the adjusted Mean Achievement scores of the Experimental group and the Control group students in Grammar by taking Pre-test as covariate" is rejected. It means that the Mean Achievement of students in Grammar differ significantly when their Mean Achievement scores were adjusted with respect to their Pre-test. This shows that a significant difference exists between the Mean Achievement scores of the students in grammar. This result matched the result reported by Williams (1980) in his study to determine if students enrolled in French 102 at the University of Georgia could learn five points of French grammar as effectively through computer-assisted instruction using

materials created by the researcher, as they could in conventionally taught classes. Findings revealed that, the experimental group achieved higher performance score. It was determined from the analysis of data that students using CAI materials learned as well as or better than students taught in conventional classes. After taking out the influence of the entry level behaviour of the students the difference remains significant. The sequence of presentation of the material, the autonomy in attempting each task and the number of examples and illustrations may have contributed to the significant difference between both the Experimental group and the Control group students.

5.1.5 ACHIEVEMENT IN COMPREHENSION BY TAKING IQ AS COVARIATE

The third objective of the Package was to enhance the English Comprehension learning of students. IQ of the students is considered one of the main factors that determines the students' learning. As it was not possible to control the impact of this variable on the learning of Comprehension by students through the Package, ANCOVA was used to partial out the impact of IQ on students' learning of Comprehension in the Package. Table-5.5 presents the summary of the ANCOVA for students' Achievement scores in Comprehension taking IQ as covariate.

TABLE-5.5

SUMMARY OF THE ANCOVA FOR STUDENTS' ACHIEVEMENT SCORES IN COMPREHENSION TAKING IQ AS COVARIATE

Sources of Variance	DF	SS	MSS	F.Value
Among Group	1	167.61	41.90	3.32 F-value is not significant
Within Group	109	1377.21	12.63	
Total	110	1544.82		

The Adjusted mean for the 1st group (Experimental)= 17.0369
The Adjusted mean for the 2nd group (Control)= 14.5408

From table-5.5, it can be seen that the F-value is 3.32 and is not significant at 0.05 level with df 1/109. Therefore, hypothesis No.5 that "there will be no significant difference between the adjusted Mean Achievement scores of the Experimental group and the Control group students in Comprehension taking IQ as covariate" is retained. It means that the Mean Achievement of students in Comprehension did not differ significantly when their Mean Achievement scores were adjusted with respect to their IQ. This result matched the result reported by Bryg (1984) in his study to determine the effect of computer-assisted instruction upon reading achievement with selected fourth-grade students. His finding was that, no significant difference existed between the means of the experimental and the control group on reading comprehension. It is evident

from this finding that, inspite of the significant differences in vocabulary and grammar achievement, students were not able to comprehend the sentences in the comprehension paragraphs given to them. In most cases students were not able to arrive at the correct answers following the comprehension passages included in the Computer Package as well as in the Post-test question paper probably because their language problem. Hence, no signifcant differences were found between the students in the Experimental group and the Control group when the IQ is taken as a covariate. However, the students' inability to understand the comprehension passages can not be attributed to their level of IQ as much as to their weakness in language.

5.1.6 ACHIEVEMENT IN COMPREHENSION BY TAKING PRE-TEST AS COVARIATE

The Entry level Behaviour of the students is considered to be one of the major factors that determines the students' learning. As it was not possible to control the impact of this Entry level Behaviour on the learning of Comprehension by students through the Package, ANCOVA was used to partial out the impact of the Entry level Behaviour on students' learning of Comprehension in the Package. Table-5.6 presents the summary of the ANCOVA for students' Achievement scores in Comprehension taking Pre-test as covariate.

TABLE-5.6

SUMMARY OF THE ANCOVA FOR STUDENTS' ACHIEVEMENT SCORES IN COMPREHENSION TAKING PRE-TEST AS COVARIATE

Sources of Variance	DF	SS	MSS	F.Value
Among Group	1	178.94	44.74	4.21
Within Group	109	1159.39	10.64	F-value significant at 0.05 level
Total	110	1338.33		

The Adjusted mean for the 1st group (Experimental)= 17.2898
 The Adjusted mean for the 2nd group (Control)= 14.5804

It can be seen from table-5.6, that F-value 4.21 is significant at 0.05 level with df 1/109. Therefore, hypothesis No.6 that "there will be no significant difference between the adjusted Mean Achievement scores of the Experimental group and the Control group students in Comprehension taking Pre-test as covariate" is rejected. It means that the Mean Achievement of students in Comprehension differ significantly when their Mean Achievement scores were adjusted with respect to their Pre-test. This result matched the findings reported by Taylor (1983) in his study to examine the effects of computer-assisted instruction on the reading achievement of college students. The result of his study revealed that after adjustment had been made, mean scores were greater for students receiving CAI on two variables, comprehension and total reading, when compared to non-CAI

studnets. This result shows that the Pre-test has no impact on the students' learning in comprehension. However, students in the Experimental group have shown significant improvement, nevertheless, not all the students' difficulties could be eliminated. In spite of the improvement in Comprehension it did not reach the level achieved in Vocabulary and Grammar.

5.1.7 ACHIEVEMENT IN VOCABULARY, GRAMMAR AND COMPREHENSION BY TAKING IQ AS COVARIATE

The fourth objective of the Package was to enhance the English Vocabulary, Grammar and Comprehension learning of students. Students' IQ is believed to be one of the major factors that plays a role in determining the students' learning. As it was not possible to control the impact of this variable on the learning of Vocabulary, Grammar and Comprehension by students through the Package, ANCOVA was used to partial out the impact of IQ on students' learning of Vocabulary, Grammar and Comprehension taken together in the Package. Table-5.7 presents the summary of the ANCOVA for students' Achievement scores in Vocabulary, grammar and Comprehension taken together taking IQ as covariate.

TABLE-5.7

SUMMARY OF THE ANCOVA FOR STUDENTS' ACHIEVEMENT SCORES IN VOCABULARY, GRAMMAR AND COMPREHENSION TAKEN TOGETHER TAKING IQ AS COVARIATE

Sources of Variance	DF	SS	MSS	F.Value
Among Group	1	6095.14	1523.28	10.02
Within Group	109	16577.07	152.08	F-value significant at 0.01 level
Total	110	22672.21		

The Adjusted mean for the 1st group (Experimental)= 74.3017
 The Adjusted mean for the 2nd group (Control)= 59.2496

From table-5.7, it can be seen that the F-value is 10.02 and is significant at 0.01 level with df 1/109. Therefore, hypothesis No.7 that "there will be no significant difference between the adjusted Mean Achievement scores of the Experimental group and the Control group students in Vocabulary, Grammar and comprehension taken together by taking IQ as covariate" is rejected. It means that the Mean Achievement of students in Vocabulary, Grammar, and Comprehension taken together differ significantly when their Mean Achievement scores were adjusted by their IQ. This result shows that the total Achievement of the students in the three variables together is significantly difference even after taking out the influence of the IQ. This result may be attributed to the package itself and the way it was presented to the students. This is evident from the

reactions of the students, teachers, and experts about the Package.

5.1.8 ACHIEVEMENT IN VOCABULARY, GRAMMAR AND COMPREHENSION BY TAKING PRE-TEST AS COVARIATE

It is believed that Entry level Behaviour of the students is one of the main factors that determines the students' learning. As it was not possible to control the impact of this Entry level Behaviour on the learning of Vocabulary, Grammar and Comprehension by students through the Package, ANCOVA was used to partial out the impact of the Entry level Behaviour on students' learning of Vocabulary, Grammar and Comprehension taken together in the Package. Table-5.8 presents the summary of the ANCOVA for students' Achievement scores in Vocabulary, Grammar and comprehension taken together taking Pre-test as covariate.

TABLE-5.8

SUMMARY OF THE ANCOVA FOR STUDENTS' ACHIEVEMENT SCORES IN VOCABULARY, GRAMMAR AND COMPREHENSION TAKEN TOGETHER TAKING PRE-TEST AS COVARIATE

Sources of Variance	DF	SS	MSS	F.Value
Among Group	1	2518.55	629.64	6.78
Within Group	109	10128.72	92.92	F-value significant at 0.05 level
Total	110	12647.27		

The Adjusted mean for the 1st group (Experimental)= 72.8389
 The Adjusted mean for the 2nd group (Control)= 61.7731

From table-5.8, it can be seen that the F-value is 6.78 and is significant at 0.05 level with df 1/109. Therefore, hypothesis No. 8 that "there will be no significant difference between the adjusted Mean Achievement scores of the Experimental group and the Control group students in Vocabulary, Grammar, and Comprehension taken together by taking Pre-test as covariate" is rejected. It means that the Mean Achievement of students in Vocabulary, Grammar, and Comprehension taken together differ significantly when their Mean Achievement scores were adjusted with respect to their Pre-test. This result also shows that after taking out the influence of the entry level behaviour of the students the remaining difference is significant, which may be attributed to the fact that the students were instructed to go through the package at their own pace with no direct involvement of the teacher and without any time limit.

5.2 IMPACT OF THE PACKAGE ON STUDENTS' VOCABULARY, GRAMMAR AND COMPREHENSION AS PER THEIR IQ, MOTIVATION, AND ATTITUDE

The third Objective of the study is to study the effectiveness of the Computer Assisted English Language Teaching Programme on the Experimental group students' Achievement in Vocabulary, Grammar and Comprehension with respect to their Intelligence, Motivation, and Attitude.

The purpose of this objective is to investigate whether any significant difference exists between students of the Experimental group with High Intelligence and students with Low Intelligence, students with High Motivation and students with Low Motivation as well as students with High Attitude and students with Low Attitude in their Vocabulary, Grammar and Comprehension Achievement.

To fulfill this Objective, scores of the Experimental group students in the Post-Achievement test were subjected to "t" tests as presented in the following tables.

5.2.1 ACHIEVEMENT IN VOCABULARY, GRAMMAR, COMPREHENSION AND THE TOTAL ACHIEVEMENT OF STUDENTS WITH HIGH AND LOW IQ

To study the students' Achievement in Vocabulary, Grammar, Comprehension and the total Achievement with High and Low IQ, table-5.9 presents the Means, SD and t-values of the Experimental group students in Vocabulary, Grammar, Comprehension and the total Achievement of students with High and Low IQ.

TABLE-5.9

MEANS, SD AND t-VALUES OF THE EXPERIMENTAL GROUP STUDENTS IN VOCABULARY, GRAMMAR, COMPREHENSION AND THE TOTAL ACHIEVEMENT OF STUDENTS WITH HIGH AND LOW IQ

	IQ	N	Mean	SD	t value
VOCABULARY	H	32	16.00	3.1024	3.00253043 Significant at 0.01 level
	L	34	12.85	5.2082	
GRAMMAR	H	32	45.53	5.7499	2.53917168 Significant at 0.05 level
	L	34	40.97	8.6347	
COMPREHENSION	H	32	17.97	2.5798	1.88152760 Not significant
	L	34	16.32	4.3503	
TOTAL OF VOCABULARY GRAMMAR AND COMPREHENSION	H	32	79.50	9.0726	2.95003877 Significant at 0.01 level
	L	34	70.15	15.9468	

From table-5.9, it is observed that the t-value between students with High Intelligence and students with Low Intelligence in Vocabulary is 3.00253043. This value is significant at 0.01 level. Therefore, hypothesis No. 9 that "there will be no significant difference between the Mean Achievement scores of students with High Intelligence and students with Low Intelligence studied through the Computer Assisted English Language Teaching Programme in Vocabulary" is rejected. It means that a significant difference exists between the Mean Achievement scores of students with High Intelligence and

students with Low Intelligence in their Vocabulary Achievement. It shows that the students with High Intelligence have scored higher marks than the Low Intelligence students in their Post-test Achievement in Vocabulary. As compared to the Low Intelligence students, High Intelligence students may have been better able to associate the vocabulary items with the graphics given for each item. This result indicates that the IQ level of the students has an impact on their achievement.

From table-5.9 also it can be seen that the t-value between students with High Intelligence and students with Low Intelligence in Grammar is 2.53917168. It is significant at 0.05 level. Therefore, hypothesis No.10 that "there will be no significant difference between the Mean Achievement scores of students with High Intelligence and students with Low Intelligence studied through the Computer Assisted English Language Teaching Programme in Grammar" is rejected. It means that a significant difference exists between the Mean Achievement scores of High Intelligence students and Low Intelligence students. It shows that students with High Intelligence have scored almost 5 marks more than the students with Low Intelligence in their Post-test Achievement in Grammar. High Intelligence students may have better reasoning ability in problem solving than the Low Intelligence students. Therefore, significant

differences were detected between both the groups, especially while attempting the grammar task. This result indicates that the IQ level of the students has an impact on students' achievement in Grammar.

From the same table, i.e. 5.9, it can be seen that the t-value between students with High Intelligence and students with Low Intelligence in Comprehension is 1.88152760. It is not significant. Therefore, hypothesis No. 11 that "there will be no significant difference between the Mean Achievement scores of students with High Intelligence and students with Low Intelligence studied through the Computer Assisted English Language Teaching Programme in Comprehension" is retained. The analysis shows that no significant difference exists between the Mean Achievement of students with High Intelligence and students with Low Intelligence in Comprehension Achievement. Even though the students with High Intelligence seem to have slightly higher Mean Achievement than the students with Low Intelligence. This result indicates that the IQ level of the students has no impact on their Achievement in Comprehension. This result validates further the earlier findings when the IQ was taken as a covariate. Comprehension seems to be determined by variables other than IQ. Hence, in both the findings the effect of IQ was not significant as compared

to the results obtained for Vocabulary and Grammar. This result also shows that the Computer Package prepared for the present study can be used with both High and Low Intelligence students alike.

From table-5.9 also it can be seen that the t-value between students with High Intelligence and students with Low Intelligence in Vocabulary, Grammar and Comprehension taken together is 2.95003872. This is significant at 0.01 level. Therefore, hypothesis No.12 that "there will be no significant difference between the Mean Achievement scores of students with High Intelligence and students with Low Intelligence studied through the Computer Assisted English Language Teaching Programme in Vocabulary, Grammar and Comprehension taken together" is rejected. It means that a significant difference exists between the Mean Achievement scores of High Intelligence students and Low Intelligence students in their Achievement in Vocabulary, Grammar, and Comprehension taken together. Which further means that students with High Intelligence seem to have scored more in their Post-test Achievement on the three variables than the students with Low Intelligence almost by 9 marks on average. This result shows that, when the three variables were taken together students with High Intelligence out performed students with Low Intelligence. But when taken separately, students with High Intelligence seem to out

perform students with Low Intelligence in Vocabulary and Grammar. In Comprehension students with High Intelligence and students with Low Intelligence seem to achieve the same. When the scores in Comprehension were considered along with Vocabulary and Grammar the high scores in Vocabulary and Grammar supplemented the Low scores in Comprehension, hence, it became significant. However, when the scores for Comprehension were taken separately differences in the level of significance became more evident.

5.2.2 ACHIEVEMENT IN VOCABULARY, GRAMMAR, COMPREHENSION AND THE TOTAL ACHIEVEMENT OF STUDENTS WITH HIGH AND LOW MOTIVATION

To study the students' Achievement in Vocabulary, Grammar, Comprehension and the total Achievement with High and Low Motivation, table-5.10 presents the Means, SD and t-values of the Experimental group students in Vocabulary, Grammar, Comprehension and the total Achievement of students with High and Low Motivation.

TABLE-5.10

MEANS, SD AND t-VALUES OF THE EXPERIMENTAL GROUP STUDENTS IN VOCABULARY, GRAMMAR, COMPREHENSION AND THE TOTAL ACHIEVEMENT OF STUDENTS WITH HIGH AND LOW MOTIVATION

	MOT	N	Mean	SD	t value
VOCABULARY	H	34	14.00	4.7154	1.28125634 Not significant
	L	32	15.31	3.5570	
GRAMMAR	H	34	42.76	5.2807	1.47524267 Not significant
	L	32	44.78	5.7919	
COMPREHENSION	H	34	16.29	3.4173	3.22283777 Significant at 0.01 level
	L	32	18.50	2.0000	
TOTAL OF VOCABULARY GRAMMAR AND COMPREHENSION	H	34	73.06	10.4991	2.25675332 Significant at 0.05 level
	L	32	78.59	9.4203	

From table-5.10, it can be seen that the t-value between achievement of students with High Motivation and students with Low Motivation in Vocabulary is 1.28125634 which is not significant. Therefore, hypothesis No.13 that "there will be no significant difference between the Mean Achievement scores of students with High Motivation and students with Low Motivation studied through the Computer Assisted English Language Teaching Programme in Vocabulary" is retained. It means students with High Motivation and students with Low Motivation have same Mean Achievement. This result indicates that the

Motivation level of the students did not have an impact on their Vocabulary achievement. This result shows that the students of the Experimental group can use the Computer Package and learn vocabulary in the same way irrespective of their High or Low Motivation. This may be due to the fact that the Computer Package is a new experience for the students. Therefore, students with High Motivation and students with Low Motivation were interested in learning vocabulary through the new medium of instruction.

From table-5.10 also it can be seen that the t-value between students with High Motivation and students with Low Motivation in Grammar is 1.47524267 which is not significant. Therefore, hypothesis No.14 that "there will be no significant difference between the Mean Achievement scores of students with High Motivation and students with Low Motivation studied through the Computer Assisted English Language Teaching Programme in Grammar" is retained. It means students with High Motivation and students with Low Motivation have same Mean Achievement. So there seem to be no significant difference in the Mean Achievement scores of High and Low Motivated students studied the Computer Assisted English Language Teaching Programme in their Grammar Achievement. This result indicates that, the Motivation level of the students did not have any impact on their achievement in Grammar. This

result also shows that the students of the Experimental group can use the Computer Package and learn grammar in the same way irrespective of their High or Low Motivation. This may be due to the fact that the Computer Package is a new experience for the students. The individualization of instruction that was provided in the Package allowed the students to learn at their own pace with little or no direct involvement of the teacher.

It can also be seen from table-5.10 that the t-value between students with High Motivation and students with Low Motivation in Comprehension is 3.22283777 which is significant at 0.01 level. Therefore, hypothesis No.15 that "there will be no significant difference between the Mean Achievement scores of students with High Motivation and students with Low Motivation studied through the Computer Assisted English Language Teaching Programme in Comprehension" is rejected. It means students with High Motivation and students with Low Motivation have different Mean Achievement scores. It shows that the students with High Motivation and students with Low Motivation have scored differently in their Post-test Achievement in Comprehension. This result indicates that the Motivation level of the students has an impact on their Achievement in Comprehension.

From table-5.10 it can also be seen that the t-value between students with High Motivation and students with Low Motivation in Vocabulary, Grammar and Comprehension taken together is 2.25675332 which is significant at 0.05 level. Therefore, hypothesis No.16 that "there will be no significant difference between the Mean Achievement scores of students with High Motivation and students with Low Motivation studied through the Computer Assisted English Language Teaching Programme in Vocabulary, Grammar, and Comprehension taken together" is rejected. It means students with High Motivation and students with Low Motivation have different Mean Achievement scores. This result shows that, when the three variables were taken together, students with High Motivation out-performed students with Low Motivation. But when taken separately, students with High Motivation seem to perform the same as students with Low Motivation in Vocabulary and Grammar. In Comprehension, students with High Motivation out-performed students with Low Motivation.

5.2.3 ACHIEVEMENT IN VOCABULARY, GRAMMAR, COMPREHENSION AND THE TOTAL ACHIEVEMENT OF STUDENTS WITH HIGH AND LOW ATTITUDE

To study the students' Achievement in Vocabulary, Grammar, Comprehension and the total Achievement with High and Low Attitude, table-5.11 presents the Means, SD and t values of the Experimental group students in

Vocabulary, Grammar, Comprehension and the total Achievement of students with High and Low Attitude.

TABLE-5.11

MEANS, SD AND t-VALUES OF THE EXPERIMENTAL GROUP STUDENTS IN VOCABULARY, GRAMMAR, COMPREHENSION AND THE TOTAL ACHIEVEMENT OF STUDENTS WITH HIGH AND LOW ATTITUDE

	Atti	N	Mean	SD	t value
VOCABULARY	H	31	14.87	4.2710	0.42276609 Not significant
	L	35	14.43	4.2108	
GRAMMAR	H	31	45.19	5.0763	2.04892056 Significant at 0.05 level.
	L	35	42.46	5.7735	
COMPREHENSION	H	31	18.10	2.3050	1.94468366 Not significant
	L	35	16.71	3.4190	
TOTAL OF VOCABULARY GRAMMAR AND COMPREHENSION	H	31	78.16	9.2111	1.84673288 Not significant
	L	35	73.60	10.8501	

From table-5.11 it can be seen that the t-value between students with High Attitude and students with Low Attitude in Vocabulary is 0.42276609 which is not significant. Therefore, hypothesis No.17 that "there will be no significant difference between the Mean Achievement scores of students with High Attitude and students with Low Attitude studied through Computer Assisted English Language Teaching Programme in Vocabulary" is retained. It means students with High Attitude and students with

Low Attitude have same Mean Achievement. This result indicates that Attitude has no impact on students' Achievement in learning vocabulary through the Computer Package. This shows that vocabulary can be learned by High and Low Attitude students alike in the present setting.

From the same table, it can also be seen that the t-value between students with High Attitude and students with Low Attitude in Grammar is 2.04892056 which is significant at 0.05 level. Therefore, hypothesis No.18 that "there will be no significant difference between the Mean Achievement scores of students with High Attitude and students with Low Attitude studied through the Computer Assisted English Language Teaching Programme in Grammar" is rejected. It means students with High Attitude and students with Low Attitude have different Mean Achievement scores. This result indicates that Attitude has an impact on students' Grammar Achievement. It can be said that students with High Attitude outperformed students with Low Attitude in Grammar, may be due to the fact that Grammar requires more positive approach of learning than any other variable.

From table-5.11 above it can be seen that the t-value between students' Achievement in Comprehension having High Attitude and Low Attitude is 1.94468366. This value

is not significant. Therefore, hypothesis No.19 that "there will be no significant difference between the Mean Achievement scores of students with High Attitude and students with Low Attitude studied through the Computer Assisted English Language Teaching Programme in Comprehension" is retained. It means students with High Attitude and students with Low Attitude have same Mean Achievement. This result also indicates that Attitude has no impact on students' Achievement in Comprehension. This result indicates that whether the students are of High Intelligence or Low Intelligence, High Attitude or Low Attitude have no impact on the students' Achievement in Comprehension. This means that the comprehension section of the Computer Package can be used with both the students alike.

From table-5.11 above it can be seen that the t-value between students' total Achievement in Vocabulary, Grammar, and Comprehension taken together with High Attitude and Low Attitude is 1.84673288. The value is insignificant. Therefore, hypothesis No.20 that "there will be no significant difference between the Mean Achievement scores of students with High Attitude and students with Low Attitude studied through the Computer Assisted English Language Teaching Programme in Vocabulary, Grammar and Comprehension taken together" is

retained. This means that students with High Attitude and students with Low Attitude have same Mean Achievement when the three variables were taken together. Probably that is why the hypothesis is retained. This further emphasises that both the groups, i.e. students with High Attitude and students with Low Attitude can learn through the Computer Assisted English Language Teaching Programme. This result indicates that Attitude has no impact on students' Achievement in Vocabulary, Grammar, and Comprehension when taken together.

5.3 ATTITUDE OF THE STUDENTS TOWARDS THE PACKAGE

The fourth Objective of the study is to study the Attitude of the students towards the Computer Assisted English Language Teaching Programme. To fulfill this objective, the Experimental group was administered an Attitude scale developed by the researcher to find students' attitudes towards the package. The data collected through this scale was analyzed qualitatively for all aspects separately and presented as under.

5.3.1 ATTITUDE TOWARDS THE VOCABULARY ITEMS

Four statements were there in the scale related to the vocabulary items of the software. The attitude of the students regarding the vocabulary items of the software was analyzed with the help of percentage and is presented



in table-5.12. In this section the students were asked to put a tick mark on the right side of the statement which they feel is suitable. The students were asked whether the graphics helped them in understanding the words' meaning? whether the graphics are drawn properly? whether the vocabulary items are presented in a sequenced way? and whether the words are defined properly?. Table-5.12, presents the distribution of the responses of students regarding the statements related to the Vocabulary items.

TABLE-5.12

DISTRIBUTION OF THE RESPONSES OF STUDENTS REGARDING THE STATEMENTS RELATED TO THE VOCABULARY ITEMS

S.NO	Statement	Strongly Agree	Agree	Undec- ided	Dis- agree	Strongly Disagree
1	Graphics in the package helped in understanding the words' meaning.	27.27% (18)	45.45 % (30)	12.12% (8)	10.60% (7)	4.54% (3)
2	Graphics shown in the package are not drawn properly.	15.15% (10)	7.57% (5)	13.63% (9)	25.75% (17)	34.84% (23)
3	Vocabulary items are presented in a sequenced way.	19.69% (13)	36.36 % (24)	12.12% (8)	15.15% (10)	15.15% (10)
4	Vocabulary/words are not defined properly.	4.54% (3)	15.15 % (10)	33.33% (22)	22.72% (15)	24.24% (16)

Note: Number within parenthesis indicates No. of respondents.

From the table 5.12 it can be seen that majority of students (72.72%) indicated in the first statement that the graphics in the package helped them in understanding the words' meaning. Whereas 26.72 of the students were either undecided or disagreed with the statement, which means that the graphics did not help them. When further probed in it was revealed that students appreciated the pictures and the way they are related to the meaning of the words. This means that, students have favourable attitude towards the statement.

From the same table above it can be seen that majority of the students (60.59%) have favourable attitude towards the second statement and indicated that, the graphics presented in the package were clearly drawn. Whereas many of them 36.35% either indicated that, the graphics were not drawn clearly or they were undecided about it. When further probed in it was found that students liked the way those graphics were drawn and presented to them. This also shows that students have favourable attitude towards the statement.

From table-5.12, it can be seen that majority of the students (56.05%) were in favour of the third statement which means they have a favourable attitude towards it. They have indicated that, the vocabulary items were presented in a sequenced way. Whereas 42.42%

of the students either indicated that, the vocabulary items were not presented in a sequenced way or they were undecided about it. When further probed in it was found that the students find it easy to understand the words and relate them to the pictures because they were presented in a sequenced way. This shows that students have favourable attitude towards the statement.

Majority of the students (46.96%) indicated in the fourth statement that the words were defined properly. Whereas 33.33% of the students were undecided regarding the statement. This means they are neither with nor against the statement and only 19.69% of the students indicated that, the words were not defined properly in the package. When further probed in it was found that majority of the students found that the words were defined properly where as 33.33% of the students were unsure whether the words were defined properly or not because it was in English through English. This shows that students have favourable attitude towards the statement.

So it can be concluded here that students have a positive attitude towards the Vocabulary items of the package as far as the graphics, way of presentation, and words' meaning are concerned.

5.3.2 ATTITUDE TOWARDS THE GRAMMATICAL CONCEPTS

Four statements were prepared related to the grammatical concepts of the software package. The attitude of the students regarding the grammatical concepts was analyzed with the help of percentage and is presented in table-5.13. In this section the students were asked to put a tick mark on the right side of the statement which they feel is suitable. The students were asked whether the Grammar concepts are logically sequenced? whether the feedback provided in this section helped them in understanding the grammar concepts? whether the examples provided in this section helped them in understanding the grammar concepts? and whether the grammatical concepts are illustrated properly?. Table-5.13 presents the distribution of the responses of the students to the statements related to the grammatical concepts presented in the software package.

TABLE-5.13

DISTRIBUTION OF THE RESPONSES OF STUDENTS REGARDING THE STATEMENTS RELATED TO THE GRAMMATICAL CONCEPTS

S.NO	Statement	Strongly Agree	Agree	Undecided	Dis-agree	Strongly Disagree
1	Grammar concepts are logically sequenced	25.75% (17)	24.24 % (16)	36.36% (24)	10.60% (7)	3.03% (2)
2	Feedback provided helped in understanding the grammatical concepts.	39.39% (26)	22.72 % (15)	13.63% (9)	10.60% (7)	13.63% (9)
3	Examples given in the package helped in understanding the grammatical concepts.	34.84% (23)	27.27 % (18)	13.63% (9)	16.66% (11)	7.57% (5)
4	Grammatical concepts are not illustrated properly.	10.60% (7)	10.60 % (7)	25.75% (17)	25.75% (17)	27.27% (18)

Note: Number within parenthesis indicates No. of respondents.

From table-5.13, it can be seen that majority of the students (49.99%) were in favour of the first statement which means they have a positive attitude towards it. The students indicated that the grammatical concepts were logically sequenced. Whereas 36.36% of the students were undecided, and 13.63% of the students indicated that the grammatical concepts were not logically sequenced. When further probed in it was found that the majority of the students think that the concepts

are logically sequenced because they could understand them easily. Students were undecided because they do not know whether the concepts are logically sequenced or not as the concepts were presented to them in English through English.

From the same table, it can be seen that a high percentage of the students (62.11%) were in favour of the second statement that the feedback provided helped them in understanding the grammatical concepts. Whereas 37.86% of the students either undecided or disagreed with the statement and indicated that the feedback did not help them in understanding the grammatical concepts. When further probed in it was found that the students found it easy to correct themselves by the feedback provided in the package and also it was found that the students were unafraid of making mistakes because no body is going to scold them if they do a mistake.

It can be seen from the same table that a high percentage of the students (62.11%) indicated in the third statement that the examples provided helped them in understanding the grammatical concepts. Whereas 37.86% of the students either undecided or disagreed with the statement and indicated that the examples did not help them in understanding the grammatical concepts. When further probed in it was found that students found the

examples to be easy and helped them in understanding the grammatical concepts, and the illustration given are appropriate to explain the complicated matters in grammar and that is why majority of them indicated that it helped them in learning grammar. It can be seen in the fourth statement that 53.02% of the students disagreed with the statement. Therefore, it indicates that the grammatical concepts were illustrated properly. Further it can be seen that a large number of students 46.95% indicated that the grammatical concepts were not properly illustrated. When further probed in it was found that the students comprehend the concepts easily because of the illustration provided to them. So it can be concluded here that students had favourable attitude towards the grammatical concepts as far as feedback, examples, illustration and logical sequence are concerned.

5.3.3 ATTITUDE TOWARDS THE COMPREHENSION UNITS

There were five statements measuring attitude of the students toward the comprehension units of the software Package. The attitude of the students regarding the comprehension units of the software was analyzed with the help of percentage and is presented in table-5.14. In this section the students were asked to put a tick mark on the right side of the statement which they feel is suitable. The statements covered the following aspects

like adequacy of the comprehension units, logical sequence of the comprehension units, clarity of questions asked, coverage of the whole paragraph in the questions, and the representation of the whole lesson in comprehension. Table-5.14, presents the distribution of the students responses to the statements related to the comprehension units presented in the software package.

TABLE-5.14

DISTRIBUTION OF THE RESPONSES OF STUDENTS REGARDING THE STATEMENTS RELATED TO THE COMPREHENSION UNITS

S.NO	Statement	Strongly Agree	Agree	Undecided	Dis-agree	Strongly Disagree
1	Questions in the comprehension units are not proper.	6.06% (4)	12.12% (8)	25.75% (27)	19.69% (13)	19.69% (13)
2	Comprehension units are not logically sequenced.	15.15% (10)	16.66% (11)	34.84% (23)	21.21% (14)	10.60% (7)
3	Questions provided after each paragraph for comprehension are very clear.	36.36% (24)	28.78% (19)	9.09% (6)	9.09% (6)	18.66% (11)
4	Questions asked after each paragraph for comprehension did not cover the whole paragraph	4.54% (3)	6.06% (4)	28.78% (19)	19.69% (13)	37.87% (25)
5	Comprehension units covered the entire lessons.	12.12% (8)	21.21% (14)	25.75% (17)	27.27% (18)	13.63% (9)

Note: Number within parenthesis indicates No. of respondents.

From table-5.14, it can be seen that majority of the students (39.38%) were in favour of the first statement as they indicated that, the questions in the comprehension units were proper. Whereas only 25.75% of the students were undecided about it and 18.18% of the students indicated that the questions were not proper. When further probed in it was found that most of the students found the questions to be proper and clearly refer to the comprehension passages. However, 25.75% of students were not able to decide whether the questions are proper or not so they were neutral in their attitude.

From the same table it can be seen that majority of the students (34.84%) were undecided with the second statement regarding the logical sequence of the comprehension units. This means that they are neither with nor against the statement. Whereas 31.81% of the students were equally divided under the category of agreement and disagreement with the statement (i.e. agree and strongly agree on the one hand and disagree and strongly disagree on the other hand). When further probed in it was revealed that students were found unable to decide whether the comprehension units were logically sequenced. This finding may be attributed to the students' inability to understand what the statement referred to. Hence, it was found that most responses are under the undecided and disagree response categories.

Table-5.14, shows that a high percentage of students (65.14%) had a favourable attitude about the clarity of the comprehension units and only a meager percentage had unfavourable attitude towards it. When further probed in it was found that, students found the questions asked after each paragraph were very clear and easy to read and comprehend, that is why they have indicated their agreement with the statement.

From the above table it can be seen also that majority of the students (57.56%) indicated in the fourth statement that the questions in the comprehension units covered the whole paragraph and 39.47% of the students indicated that the questions did not cover the whole paragraph. When further probed in it was found that students found that all the questions asked after each paragraph covered the whole paragraph.

It can be seen also from table-5.14, that majority of the students (40.9%) indicated in the fifth statement that the Comprehension units did not cover the whole lessons. Whereas 33.33% of the students indicated that the Comprehension units have covered the whole lesson and 25.75% of the students were found undecided with the statement. When further probed in it was found that most of the students could not understand the question

properly that is why the majority of them indicated disagreement with the statement.

It can be concluded from the above table that, students found to have neutral attitude as far as appropriateness of the questions and logical sequence are concerned, favorable attitude as far as clarity of questions and coverage of the paragraphs are concerned and indicated negative attitude when they were asked whether the whole lesson is covered or not.

5.3.4 ATTITUDE TOWARDS THE EVALUATION TESTS

The attitude of the students regarding the Evaluation tests of the software was analyzed with the help of percentage and is presented in table-5.15.

TABLE-5.15

DISTRIBUTION OF THE RESPONSES OF STUDENTS REGARDING THE STATEMENT RELATED TO THE EVALUATION TESTS

S.NO	Statement	Strongly Agree	Agree	Undecided	Dis-agree	Strongly Disagree
1	Evaluation tests given after each unit of the package helped in self-evaluation.	33.33% (22)	19.69% (13)	15.15% (10)	21.21% (14)	9.09% (6)

Note: Number within parenthesis indicates No. of respondents.

From table-5.15, it can be seen that majority of the students (53.02%) found that the Evaluation tests

provided after each unit helped them in self-evaluation. Whereas 45.45% of the students either undecided or disagreed with the statement. This means that, students have favourable attitude towards the statement. When further probed in it was found that the Evaluation tests helped students in revising the material they had already read at the beginning of the experiment. So we can conclude that the students had a positive attitude towards the package as far as the evaluation tests are concerned.

5.3.5 ATTITUDE TOWARDS THE OVERALL ASPECTS OF THE PACKAGE

To find out the attitude of students towards some general aspects of the package six statements were there. The attitude of the students regarding these aspects were analysed and presented in table-5.16.

TABLE- 5.16

DISTRIBUTION OF THE RESPONSES OF STUDENTS REGARDING THE STATEMENTS RELATED TO THE OVERALL ASPECTS OF THE PACKAGE

S.NO	Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1	The language used in the entire package is not easy to understand.	9.09% (6)	43.93% (29)	22.72% (15)	16.66% (11)	7.57% (5)
2	The package is user friendly.	16.66% (11)	7.75% (5)	34.84% (23)	27.27% (18)	12.12% (8)
3	Content covered in each unit of the package is not sufficient.	15.15% (10)	25.75% (17)	19.69% (13)	21.21% (14)	16.66% (11)
4	The package material prepared did not help in self-study.	6.06% (4)	21.21% (14)	13.63% (9)	24.24% (16)	34.84% (23)
5	Materials covered in the package are not adequate for the package purpose.	6.06% (4)	13.63% (9)	31.81% (21)	25.75% (17)	22.72% (15)
6	All questions provided in the package are adequate to the package purpose.	19.69% (13)	31.81% (21)	25.75% (17)	15.15% (10)	7.57% (5)

Note: Number within parenthesis indicates No. of respondents.

From table-5.16, it can be seen that majority of the students (53.02%) indicated in the first statement that the language used in the entire package was difficult to understand. Therefore, they have a negative attitude

towards the first statement. Rest of the students were undecided or disagreed about it. This result indicates that students might have faced some difficulty in understanding the English language used in the entire package. Although, the language used was very simple, the students could not understand it as they were not used to study English through English, that is why they faced the problem of understanding it. When further probed in this result was supported by the fact that students faced some difficulty in understanding the language in the grammar portion of the package. Therefore, the negative attitude was reported for the language of the package.

About the user friendly of the package it can be seen from table-5-16, that majority of the students (34.84%) were undecided about it. Only 24.41% of the students indicated their agreement with the statement and 39.39% of the students indicated their disagreement with the statement. This may be due to the fact that the students could not understand the phrase user friendly. When further probed in students revealed that they found it difficult to get the meaning of user friendly. Therefore, some students were undecided and some disagreed with the statement without knowing what they are responding for. Further probing reveals that students enjoyed learning through the package. So it can be said here that students

might have a positive attitude for the package. It was found that a majority of the students (40.9%) agreed with the third statement that the contents covered in the package were insufficient. Therefore, they have a negative attitude with the third statement. Whereas 37.87% of the students found that the contents covered in the package were sufficient and 19.69% of the students were undecided with the statement. Further probing revealed that students were expecting more materials to be incorporated in the package i.e., contents for the whole text book. Further their expectation was more than the scope of the Package. Therefore, it can be deduced from here that the students had negative attitude for the content coverage of the Package, which in reality is not so.

Table-5.16, reveals that 59.08% of the students had favourable attitude towards the Package as it helped them in self-study. Only a negligible percentage of students had the response that it did not help them in self study or they were undecided about it. When further probed in it was also found from the students themselves that they were able to use the package without the help of the teacher and the package helped them in self-study. Therefore, it can be concluded that the students had a favourable attitude towards the Package as it helps them in self-study.

Majority of the students (48.47%) in the fifth statement found the materials covered in the package to be adequate. Therefore, they have a positive attitude towards the fifth statement. Whereas 31.81% of the students were undecided with the statement and 19.69% of the students found the materials covered in the package inadequate. When further probed in it was found that students felt that the materials were adequate to the package because it covers the four lessons.

Majority of the students (51.5%) in the sixth statement found the questions provided in the entire package to be adequate to the purpose. Therefore, their attitude was found positive towards the sixth statement. Whereas 25.75% of the students were undecided with the statement and 22.72% found the questions inadequate to the purpose of the package. When further probed in it was found that students found the questions asked were related to the topics covered in the package. So it can be concluded here that students were found to have favorable attitude towards the package as far as self-study, adequacy of the material and adequacy of the questions provided in the package are concerned, and a neutral attitude as far as the package as user friendly is concerned, and a negative attitude as far as language used in the package and content of each unit are concerned. It can be concluded here that the students

were found to have a favourable attitude towards the Package in general, this may be due to the fact that the Package is a new experience to the students. As far as the Vocabulary items, Grammatical concepts, Comprehension units and the Evaluation tests were concerned students' attitudes were found to be positive, as the students themselves revealed that this was the first time they learn these variables through Computer, therefore, they found it interesting and encouraging. It helped them to be independent and to learn by themselves and at their own pace. However, when students' Attitudes towards the overall aspects of the Package was measured it was found that the students' Attitude ranged from positive, negative to undecided. From the students favourable attitudes towards Vocabulary items, Grammatical concepts, Comprehension units and the Evaluation tests we can argue that students are favourably inclined towards learning from the Computer Package that has been prepared for the present study.

5.4 FINDINGS OF THE STUDY

The analysis of data in this Chapter revealed the following findings.

1. Computer-Assisted English Language Teaching Programme was found to be an effective individualized

instructional technique for teaching English to Standard VIII Gujarati medium students. It helped the students of the Experimental group to learn more than the students of the Control group in Vocabulary and Grammar. Whereas, in Comprehension the Package had no effect on the students' achievement.

2. Students' level of IQ was found to have an impact on students' achievement in Vocabulary and Grammar. Whereas, in Comprehension the level of IQ did not exert any impact on students' achievement.
3. Students' level of Motivation was found to have no impact on students' achievement in Vocabulary and Grammar. Whereas, students' achievement in Comprehension seemed to have been influenced by students' level of Motivation.
4. Students' Attitude towards the Package was found to have an impact on students' achievement in Grammar only. Whereas, in Vocabulary and Comprehension the Attitude seemed to have no impact on students' achievement.
5. Students were found to have a positive attitude towards the Computer-Assisted English Language Teaching Programme. Students' Attitude towards the package was found to be favourable as far as the

statements related to the Vocabulary items, Grammatical concepts, Comprehension units and Evaluation tests were concerned, and mixed or neutral Attitude towards the package as far as the statements related to the overall aspects of the package were concerned.

5.5 CONCLUSION

The package proved to be effective in teaching Vocabulary, Grammar and Comprehension to standard VIII Gujarati medium students. Students' level of IQ, Motivation and Attitude were found to have played a role in students' Achievement in Vocabulary, Grammar and Comprehension while learning through computer, i.e. IQ level of the students has an impact on students Vocabulary and Grammar learning. Whereas in Comprehension it has no impact, students' level of Motivation has no impact on students' achievement in Vocabulary and Grammar. Whereas in Comprehension it has an impact, Students' Attitude has an impact on students achievement in Grammar. Whereas in Vocabulary and Comprehension it has no impact. Students' Attitude towards the package was found positive and favourable. The Computer-Assisted Instruction as an individualized instruction proved to be an effective tool for teaching Vocabulary, Grammar and Comprehension to Gujarati medium students, therefore,

such kind of software should be encouraged. The role of the teacher should be a monitoring one and should give the students full freedom to learn and interact with the computer at their own pace then the full advantage of the computer as an instructional tool can be realized. When students are given full freedom to learn by themselves they become good learners and achieve more.