CHAPTER VI

RESULTS AND DISCUSSION

“Reasoning draws a conclusion, but does not make the conclusion certain, unless the mind discovers it by the path of experience.”

- Roger Bacon

6.0 INTRODUCTION

The aim of any research is to find out an appropriate answer to the problem undertaken and the answer is stated in the form of findings. The investigator has undertaken the research work to achieve certain objectives leading to highlight the effectiveness of Multimedia Learning Package on Unaccompanied Learners. This chapter highlights the most important part of the research work, the summary and findings. Recommendations based on the findings of the study and suggestions for further research studies are also presented in this chapter.

6.1 RESEARCH QUESTIONS

These were the following research questions formulated by the researcher were answered in the present study:

- Will Multimedia Learning Package in English influence the learners to accomplish their learning process?

- Does Multimedia Learning Package in English help the learners in the enhancement of achievement in the Subject?

- Will the Multimedia Learning Package promote English Achievement Score, and Language Creativity of high school level Unaccompanied Learners?
• Is there a relationship among English Achievement and Language Creativity of high school level Unaccompanied Learners, when innovative method using Multimedia Learning Package in teaching English?

6.2 SUMMARY OF THE STUDY

The objectives of the study were to find out the effectiveness of Multimedia Learning Package to promote English Language learning among the Unaccompanied Learners at high school level. The researcher conducted Experimental Method of study and taught English through Multimedia Learning Package. The Achievement scores of the Control group and Experimental group of unaccompanied adolescent learners were compared. The researcher chose the Experimental Design, to be Pre – Test and Post Test-Equivalent Group design. Independent variable of the study was Learning through Multimedia Learning Package and the dependent variables were English Language Creativity and Achievement in English.

To find out the effectiveness of Multimedia Learning Package in English, the researcher selected the X Standard students of Unaccompanied Learners of Bangalore, as the population. Purposive sampling technique was used to draw the sample. Multimedia Learning Package was prepared on the selected units from the X Standard English Textbook of Karnataka State Board, with the guidance of the Supervisor, Content Experts and Technical Experts, It is to promote Effective Learning of English Lessons and to develop Language Creativity.

The researcher used the standardized tool viz., Language Creativity Test and the other tools were constructed by him. The standardized tool Language Creativity Test (LCT) is developed by S.P. Malhotra and Sucheta Kumari (2004). Achievement test in English was constructed and standardized by the investigator. Multimedia Learning
Package was used to conduct the English Lessons. These tools were used to collect data through the process of experimentation.

Pre-Test was administered for both Control Group and Experimental Group in English Achievement and Language Creativity. In the process of experimentation, the Control group was taught through the Conventional method and the experimental group was taught through the innovative method using E-Learning Module. The experimental treatment was given for a period of two months. After the treatment post-test was administered for both the groups. The data thus collected was analysed by using Mean, Standard Deviation, and ‘t’ test, Correlation Analysis, Effect Size and Gain Ratio. After statistically analyzing the data the results were drawn, this implied that there is a significant difference between the Conventional teaching method and the innovative method using Multimedia Learning Package in English Achievement among the Unaccompanied Learners of high school. Thus the researcher tested the Hypotheses and analyzed the findings of the Study entitled “Effectiveness of Multimedia Learning Package in Learning English: A Study Among the Unaccompanied Learners”.

6.3 FINDINGS OF THE STUDY

1. There is no significant difference between male and female Unaccompanied Learners in Language Creativity of Control Group pre and post-test.

2. There is no significant difference between male and female Unaccompanied Learners in Academic Achievement of Control Group in the pre and post-test.

3. There is no significant difference between male and female Unaccompanied Learners in Language Creativity of Experimental Group in the pre and post-test.
4. There is no significant difference between male and female Unaccompanied Learners in Academic Achievement of Experimental Group in the pre and post-test

5. There is no significant difference among the Unaccompanied Learners in Language Creativity Score of Control group and Experimental Group Pre-test

6. There is no significant difference among the Unaccompanied Learners in Language Creativity Score of Control Pre-test and Post-test.

7. There is significant difference among the Unaccompanied Learners in Language Creativity Score of Control group and Experimental Group Post-test.

8. There is significant difference among the Unaccompanied Learners in Language Creativity Score of Experimental Pre-test and Post-test.

9. There is no significant difference among the Unaccompanied Learners in English Achievement Score of Control group and Experimental Group Pre-test.

10. There is no significant difference among the Unaccompanied Learners in English Achievement Score of Control Pre-test and Post-test.

11. There is significant difference among the Unaccompanied Learners in English Achievement Score of Control group and Experimental Group Post-test.

12. There is significant difference among the Unaccompanied Learners in English Achievement Score of Experimental Pre-test and Post-test.
13. Innovative Teaching Method using Multimedia Learning Package in the English Achievement at high school level Unaccompanied Learners are effective than the Conventional method of teaching.

14. There is a positive relationship between the Language Creativity and English Achievement.

15. There is significant increase in the gain ratios obtained by the experimental group taught through Multimedia Learning Package in English achievement Score and Language Creativity Test Score. The gain ratio obtained by the experimental group is higher than the control group taught through Conventional method for high school Unaccompanied Learners.

16. There is a significant effect size in the means of pre-test and post-test scores taught through Multimedia Learning Package in English Achievement score and Language Creativity Test Score of high school students. The effect size is larger for the experimental group than the control group taught through Conventional method for high school Unaccompanied Learners.

6.4 MAJOR FINDINGS OF THE STUDY

The major findings of the study reveal that the Innovative Teaching Method using Multimedia Learning Package was effective than the Conventional method of teaching English. Findings of the present study are as follows

- Innovative Teaching Method using Multimedia Learning Package in the English Achievement and Language Creativity at high school level Unaccompanied Learners does not differ significantly with the Conventional method of teaching English in pre-test and post-test with respect to gender.
Innovative Teaching Method using Multimedia Learning Package in the English Achievement at high school level Unaccompanied Learners is effective than the Conventional method of teaching English.

Experimental group students taught through innovative method using Multimedia Learning Package does not differ significantly from the Control group students taught through Conventional method in English Achievement scores in the pre-test.

Experimental group students taught through innovative method using Multimedia Learning Package does not differ significantly from the Control group students taught through Conventional method in Language Creativity Test scores in the pre-test.

Control group students taught through Conventional method do not differ significantly in English Achievement scores in the Pre-Test and Post Test.

Control group students taught through Conventional method do not differ significantly in Language Creativity Test scores in the Pre-Test and Post Test.

Experimental group students taught through innovative method using Multimedia Learning Package and the Control group students taught through Conventional method differ significantly in mean English Achievement scores in the post-test.

Experimental group students taught through innovative method using Multimedia Learning Package and the Control group students taught through Conventional method differ significantly in mean Language Creativity Test scores in the post-test.
Experimental group students taught through innovative method using Multimedia Learning Package in English Achievement scores in the pre and post-test.

Experimental group students taught through innovative method using Multimedia Learning Package in Creativity Test scores in the pre and post-test.

Experimental group taught through innovative method using Multimedia Learning Package has significant relationship between English Achievement scores and Creativity Test scores in the post-test.

The effect size for the difference between the Pre-test and Post-test in the mean English Achievement scores and Language Creativity Test Scores taught through innovative method using Multimedia Learning Package is large at high school level Unaccompanied Learners.

The gain ratio obtained by the Experimental group which was taught through innovative method using Multimedia Learning Package in English is high.

On the basis of the analysis of the quantitative data collected, the following conclusions were drawn by the investigator.

Innovative instructional method, Multimedia Learning Package was found to be effective in bringing about modification in learning.

Multimedia Learning Package was found to be more effective for learning English as compared to the Conventional method of teaching.

Multimedia Learning Package was found to be more effective in promoting the Language creativity than the Conventional method.
The Achievement of Experimental group taught through Multimedia Learning Package in English and Language creativity had greater effect size and gain ratio than that of the control group, which signifies that the Multimedia Learning Package is effective in English Achievement and Promote Effective Learning among the Unaccompanied Learners.

6.5 DISCUSSION ABOUT THE RESULTS

Earlier studies show that learning through multimedia has great impact on their achievement and performance for different groups of learners. Multimedia resources have creative elements to attract the learners, hence it can be said that there is a link between both. The study also points to the fact that the creativity level of the Unaccompanied Learners is higher when there is recourse to creative ways of learning like learning through multimedia resources.

The present study is in congruence with Richard E Mayer (2007), who in his book “Cognitive Theory of Multimedia Learning” speaks of separate channels for visual and verbal processing in the learners’ information system. Involvement of as many senses as possible in learning leads to enhancement of achievement and performance. Coordination in this cognitive processing leads to better learning. This is what is observed in the present study.

Another study done by Joshi Ashvini (2012), “Multimedia: A Technique in Teaching Process in the Classrooms” spoke of one of the techniques to improve the students’ performance as developing English language skills by providing multimedia during the process of teaching and learning in the classroom. This study also reiterates the fact that multimedia classroom provides a better learning environment. In this study a
comparison is made between conventional method of learning and multimedia learning. The end result is the same as the present study where multimedia has greater impact on the learners in relation to their performance and achievement.

Avinash Jayswal et al (2012), in the study titled “Effectiveness of Audio-Visual Aids on Achievement in Basic Concept of Universe” showed the students videos, posters or models of Space Science to teach the basic concept of Universe. 53 students of St. Basil School studying in VIII std. during the year 2011-2012 performed well in the achievement test comprising of 35 objective types of questions. For the present study also the investigator made use of 50 multiple choice questions to test their achievement and performance in English.

Luann K. Stemler (1997), in the paper titled “Educational Characteristics of Multimedia” spoke of learning through multimedia as an interactive process. The interactive aspect of the multimedia was stressed in the process of learning. In the present study also the investigator prepared an interactive multimedia learning package to observe the effectiveness of it on the achievement of Unaccompanied Learners.

Dr. C.V. Satyaprakasha et al (2014), in the study titled “Effect of Multimedia Teaching on Achievement in Biology”, found that ‘Multimedia instructional systems’ are very effective in teaching students. Here, two sections of 9th standard, 38 and 39 students of Samhitha High School, Kurabrahalli, and Bangalore have been chosen as the sample. Achievement with respect to knowledge, understanding, application and total achievement in biology was tested and it was found to be effective. In the present study also the investigator tested the achievement of Unaccompanied Learners in English on the same lines and the learners performed well in the achievement test.
Dr. K. Sumita Rao (2011), in the study titled “Need Analysis of Effective method in teaching English in Secondary Schools” spoke of the conditions prevailing in the Indian Classrooms and the complexities and intricacies of the language has envisaged towards the development of an innovative strategy of Teaching English to Secondary School Students. Keeping these points in mind, the researcher has developed an integrated teaching package called The DISCSAP Model of teaching English. In the similar manner the investigator of the present study also prepared an interactive Multimedia Learning Package to teach the Unaccompanied Learners of Secondary School.

Neeraj Bishnoi (2014) in the study titled “Effectiveness of Multimedia Programme in Teaching English Grammar to Secondary School Students” made use of a multimedia presentation for teaching active and passive voice of English grammar to secondary school students and found that the multimedia presentation is more effective than conventional method in learning the concepts of grammar among secondary school students. The 50 students who participated in this experiment performed well. In the present study too, the investigator has assigned a portion of the multimedia learning package to learn the structure of present tense form. There are also few questions to test the grasp of that structure.

It is important to note here that the investigator did not come across any study where in effectiveness of a multimedia package was tested on Unaccompanied Learners. The investigator did not also come across any general study done on Unaccompanied Learners using Technology or E- Learning modules. Thus this study is a unique one of its kind.
6.6 RECOMMENDATIONS

In the light of the research findings and the conclusions drawn from the study, the following recommendations are given:

- The orientation on the development of Multimedia Learning Package may invariably be given to the teachers at all levels, as the Multimedia Learning Package was proved to be effective in the present study.

- Adequate infrastructure may be established in the educational institutions at all levels for the development and implementation of Multimedia Learning Package by the teachers for the students.

- As teacher’s awareness of Multimedia Learning Package and its components are essential for the development of Multimedia Learning Package, the concerned educational departments should organize appropriate training programmes for the teachers at all levels to get mastery over the Multimedia Learning Package and their components.

- An experiment on creative students from different schools can be planned to examine the results of the study.

- The government should establish Multimedia Learning Package promotion cell to plan, organize and co-ordinate efforts to utilize -learning module.

- The Educational institutions should encourage purchasing of E-Journals for their library.

- Potential of Multimedia Learning Package can be utilized to enhance the quality of education at all levels.
Experts in the field of E-Learning can give training and guidance to the teachers.

Incentives need to be given to teachers who have proficiency in E-Learning skills to use in their day to day teaching.

Government should support the private organization to develop educational software and secure copyright act to check the software privacy.

Lecture method in the class should be minimized and other new technologies, such as use of the Multimedia Learning Package, online learning etc. can be introduced.

As Multimedia Learning Package in the selected topics of English Subject is found to be effective and promotes active learning, teachers may be oriented to identify the content in English Language for which Multimedia Learning Package could be developed.

Effectiveness of Multimedia Learning Package can be examined for the students from different cultural background such as rural and urban settings.

The Multimedia Learning Package practice can be applied to other Language subjects like Tamil, Kannada, Telugu, Hindi etc., and also subjects like Mathematics, Physics, Chemistry, Biology and Social Sciences etc., at the High School and Higher Secondary levels.

In-service courses aiming at training for in the preparation of Multimedia Learning Package should be given to all teachers, especially to the Language teachers.

NCERT, SCERT, NCTE and other statutory organizations should introduce E-
Learning based learning method in the form of curriculum development, to meet challenges in Education.

- Practical demonstration can be carried out with the help of Multimedia Learning Package.
- Subject periods may be increased for the effective use of Multimedia Learning Package in the classroom.

6.7 EDUCATIONAL IMPLICATIONS

A few educational implications for the present study are as follows:

- The results of the study have proved that Multimedia Learning Package is more effective than the Conventional method of teaching English at the high school level. Hence, it is recommended to utilize this technological innovation in the teaching process of English at other levels also.
- This method extends the use of more than one sense, and hence, there is an improvement in the teaching-learning process. It is highly recommended to practice Multimedia Learning Package in schools.
- Since the use of Multimedia Learning Package enhances the retention power of the students, it would help them to score high marks in English Language.
- Multimedia Learning Package in the present study can be encouraged for wider use to facilitate students to master the concepts of English Language at their own pace and speed.
- Teachers of High Schools and Higher Secondary Schools can be given orientation to develop e-learning, so that they can adopt new technologies to teach other subjects at the High School and Higher Secondary School level.
Since the use of Multimedia Learning Package enhances achievement, it will diminish wastage and stagnation in the schools. Interactive Multimedia Learning Package can be developed for respective subjects by the NCERT and its SCERT and even by private agencies.

The cost involved in demonstration of Language subjects can be reduced by this method.

6.8 SUGGESTIONS FOR FURTHER RESEARCH

In the light of the above findings of the study, further investigations in the following areas can very well be undertaken. The suggestions are as follows:

- A large study may be carried out by considering different types of schools.
- A similar study may be carried out in some other subjects like Physics, Chemistry, Biology, Mathematics, etc.
- Exposure to Multimedia Learning Package can be given to pupils for longer durations based on the purpose of the study.
- Studies on the effectiveness of Multimedia Learning Package may be extended to other education levels, such as, primary, higher secondary, graduation and post-graduation stages.
- A comparative study may be considered to work out the differences in the effectiveness of Multimedia Learning Package in relation to the academic achievement of the gifted and slow learners.
- More units can be taken up to analyze the effectiveness of Multimedia Learning Package in the said discipline.
A Comparative study can be done with Unaccompanied Learners and other groups of Children.

6.9 CONCLUSION

The study reveals that the post-test mean scores of the experimental group students for English Achievement and Language Creativity Score were significantly higher than those of the control group students. In the light of the research findings, from the above study, the investigator has an idea that Multimedia Learning Package provides greater opportunities for the students to learn. It is felt that the present piece of research may contribute to the alleviation of the difficulties of the learners in acquiring English efficiency. It is hoped that appropriate Multimedia Learning Package in English Language may be given as an innovative approach to self-learning in the present curriculum, and the findings of the study may be taken into consideration for a better frame work in developing self-learning competency of Language concepts at the higher level of education. This has also been realized by many educational experts: hence, there is an urgent need to gear national effort towards the implementation of this innovative strategy to provide knowledge through which it promotes English Language Achievement and Language Creativity. Multimedia Learning Package is student centered technique and they can learn according to their need. It provides self-paced learning. Multimedia Learning Package provides wide range of opportunity and gives quality education.

The present findings are expected to add to the fund of knowledge already present in this field. It is the humble hope of the investigator that the present study would open doors to further research in this area. Findings of the study emphasized to gear up the interest towards English Language and Language Creativity among the students through Multimedia Learning Package to promote effective and active learning.