CHAPTER – VI
FINDINGS, CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The present chapter deals with the major findings of the study, conclusions and implications for research in multimedia and recommendations for further research in this field.

6.1 FINDINGS OF THE STUDY

The trend in education at present demand an interactive communication between the learner, the learning system, and the learning material. This is possible through an interactive communication between computer and human by learner controlled events like active participation in an educational setting, providing feedback, building on knowledge and experience. Multimedia teaching and learning packages can be both valuable aids to teaching in the classroom and effective self-directed tools for learning.

The main motive of the teachers is to capture the attention of the students in the class. The multimedia will be used with variety of media to communicate messages, ideas, informations and contents thus appealing to more than one sense to create a multisensory experience. Thus teacher using multimedia package reaches students in many different ways, enabling them to retain more knowledge and increase their understanding to their subject of topic.

Multimedia is a computer based interactive communication process that incorporates text, graphics, diagram, sound, animation, pictures and video. These elements of multimedia can be combined for multimedia application in teaching and learning.

The various elements of multimedia namely text, graphics, sound, animation and video helps in activating the learners in drawing attention, arousing their interest and creating interest in the concerned subjects. Sound used in MML package becomes a stimulus to the imagination. As a result of using video, audio, graphics and animation in MML package, classroom teaching-learning process become interesting, more interactive and have a direct influence on students learning outcomes.
Pande and Mohan Lal (1998) reported that through multimedia the learner is exposed to a variety of information which helps in clearer understanding of the subject. The learner can make use of the information contained in the program which could comprise of different levels of information from basic to complex or advanced.

The present study shows the effectiveness of Multimedia Learning (MML) package over traditional method of study.

Based on the analysis of data and interpretation of results, a set of findings and conclusions can be drawn and on the basis of their discussion, a wide range of implications and suggestions need also to be focused on for further research in the field related to this study. The major findings of research may be as follows:

1. The results of present study indicates that there is a significant difference between the achievement test scores of experimental and control group. It is clear that the mean of experimental group is significantly higher than the mean of the control group. This implies that the students who are taught Educational Technology through MML package show significant improvement in their achievement than the students who received instructions through the traditional method.

2. The group of students taught 'Educational Technology' through MML package show significantly higher mean gain in achievement than the group of students taught 'Educational Technology' through traditional method.

6.2 CONCLUSION

From the above findings it may be safely concluded that MML package significantly improves the scores of students of the experimental group in their achievement and MML package proves more meaningful and effective than the traditional classroom learning strategy.

With the rapid progression in the multimedia technologies, it has become feasible to integrate multimedia technology into the teaching and learning process. What has been the conventional teacher centered approach is now seeing
a shift into one which emphasizes on student - centered learning. Traditional educational content can now be transformed into interactive multimedia content by using authority packages. It has enabled the teacher to innovate his/her instructional design by presenting the educational content in an interactive and multi-sensory manner rather than the traditional single media format. This infusion of multimedia into teaching and learning has altered instructional strategies in educational institutions. Hence, with the advent of this pervasive information technology, many colleges and universities are currently gearing their teaching and learning towards one which uses multimedia technology to enhance the student’s learning process.

Both the hypotheses of the study namely H₂ and H₃ were retained.

H₂ At the end of experimental treatment the group of students taught 'Educational Technology' through MML Package score significantly higher on the achievement test than the group of students taught through the traditional method.

H₃ At the end of experimental treatment the group of students taught 'Educational Technology' through MML package show higher gain score on the achievement test than the group of students taught through the traditional method.

6.3 EDUCATIONAL IMPLICATIONS

The present research clearly shows that in changing from a traditional 'Chalk and talk’ method to a Multimedia based enriched class, student’s achievement does not diminish; rather it significantly improves.

It implies that MML package proves to be more tangible in its effectiveness on achievement than the traditional classroom approach. MML package proves to more practical and widely acceptable to teacher. Also the students of all percentage groups in the class attain comparably on achievement which shows that MML package enables all types of students to perform better.

- The study has important implications for teacher education. Given the current widespread use of multimedia learning package globally at all
levels and for all the subjects, it is imperative that teachers should learn this new technology.

- The teachers should understand how to develop and run MML package. The pre-service training may be given to teachers in the making and in-service training to the existing teachers. MML package suggests a new role for the teacher – the role of a facilitator. A teacher accustomed to being the sole source of information for teaching the passive learners in the classroom, has to change to be a facilitator in the learning process to actively encourage the students to participate in activities and discussions.

- Multimedia learning can be used effectively for classroom teaching. It is easier for the teachers to monitor students in Multimedia based class than in the traditional instructional setting.

- MML packages may act as a source of edutainment (education plus entertainment) as well. The sessions may include holding group discussions on some general topics related to current affairs to create more interest among students. So teacher becomes more resourceful and classes get livelier.

- Important skills such as creative thinking, critical analysis and the synthesis of knowledge can easily be accomplished through M/ML based learning in the classroom.

6.4 SUGGESTIONS FOR FURTHER RESEARCH

With regard to further possibilities of research in this area, some suggestions may be given as follows:

- The study may be conducted on sample of different classes/different subjects for a longer period so that the proved facts can be verified in a large population with large number of samples.

- The study may be conducted to compare MML package with other methods of instruction.

- The study may be conducted that Multimedia Learning Package is helpful in enhancing retention and confidence of students.
• The study may be conducted that Multimedia Approach is useful for children with special needs.
• The study may be compared by involving students in the development of MML package.

Research may be conducted to study the impact of Multimedia Project on student’s learning in various subjects/levels i.e. for subjects other than Educational Technology. Research is needed to study the effect of MML package on special groups of children such as gifted, students with learning disabilities and other special needs.

6.5 OVERVIEW

Finding of the study clearly indicate that Multimedia can be perceived as a big change for education and there is lot of scope for research in this field. They can actually help in uplifting the quality of one education, so educationists need to develop more sophisticated understandings of the conditions, circumstances, means and mechanisms through which multimedia can be closely connected to the young learners and teacher educators as well.