“The ink of the scholar is more sacred than the blood of the country”

-Mohammed

Chapter – VI
FINDINGS, CONCLUSIONS, IMPLICATIONS AND SUGGESTION FOR FURTHER RESEARCH
"The time has come," the Walrus said, "To talk of many things", yes, look back into what has been done is necessary at this stage to understand the relevancy of this venture.

However, valid, reliable and adequate the data may be it does not serve any worthwhile purpose unless it is carefully edited systematically, classified and intelligently interpreted and rationally concluded. After trespassing many odds, the investigator has reached destination where she can prove the worth of her study in the form of conclusion. This chapter deals with the major findings of the study, conclusions and implications for research in multimedia and recommendations for future research in this field.

6.1 FINDINGS OF THE STUDY

Role of Multimedia in the field of education is emerging as a growing concept in all parts of the world. Multimedia is the integration of multiple forms of media. This includes text, graphics, audio, video, etc. For example, a presentation involving audio and video clips would be considered a "multimedia presentation". Today we are right in the midst of a digital age that is heavily influenced by Multimedia. Multimedia is bombarding us from every conceivable arena right from cinema theatres, televisions and various other audio equipments to computers and all the new generation electronic gadgets. Multimedia has become much more powerful in the present century than ever before. Multimedia is an amalgamation of various conventional and non-conventional media put together. Multimedia is the order of the day employing various kinds of mediums and devices for its all-pervasive usage. Depending upon the nature of application, budget, time frame and target audience, appropriate medium is chosen. The type of medium selected for delivery influences the nature of multimedia contents.
Multimedia is being used in the field of education for a variety of applications. It can be broadly classified as interactive and non-interactive multimedia. Multimedia is the technology that employs different kinds of media like text, audio, video, graphics and animation, either separately or in combination-using computers, to communicate ideas or to disseminate information. Multimedia has no standard static or fixed physical form and is, therefore changeable (and interchangeable). The impact of multimedia on pre-service teachers for instance, may depend upon the content and media used for development but more than that it depends on the way; a teacher uses it for teaching learning process.

So application stage is very vital. Multimedia are just a tool and a teacher/ instructor can make or mark it with the individual potential. Multimedia is the creation of a visual rhetoric appropriate for interactive display and function. In designing a multimedia application, it is not possible to predict in advance how a particular combination of text, graphics, audiovisual material, and other elements will interact or appeal to the audience. So development of a multimedia programme demands a great deal of knowledge of computer (hardware and software), creativity, and understanding of the content, level of the target group, effort and perseverance. Multimedia can play a major role, in the field of education due to its multi-sensorial approach. It offers opportunities for learners in every aspect and especially it can play a vital role in improving student’s academic achievement. The effectiveness of Multimedia Learning Package over traditional method of teaching has been established through the present 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 also need to be focused on for further research in the field related to this study. Some of the significant possibilities and provisions in terms of findings of this piece of research may be as follows:

(i) The results arrived at during this study show that the post-test achievement mean scores of the experiment and control groups, differ significantly in favour of the experimental group. This implies that the pre-service teachers who are taught Educational Psychology through Multimedia Learning Package show
significant improvement in their achievement in this subject than the pre-service teachers who received instruction through the traditional method. It suggests that Multimedia Learning Package based learning contributes towards raising the achievement of pre-service teachers in Educational Psychology.

(ii) The group of pre-service teachers taught Educational Psychology through Multimedia Learning Package show significantly higher mean gain in achievement than the group of pre-service teachers taught Educational Psychology through traditional method.

6.2 CONCLUSION

It may be safely concluded from the above findings that MMLP learning significantly improves the scores of pre-service teachers of the experimental group in their achievement and the method of Multimedia learning proves more meaningful and effective than the traditional classroom learning strategy. The conclusion of the study needs also to be expressed in terms of their global importance for educational purposes vis-a-vis the tested hypotheses of the study.

Prima-facie, the main focus of the study addresses the multi-sensorial approach of the innovative learning process (Multimedia Learning Package) and its impact on education for sustainable development of each and every individual learner in a school situation which is deemed to be a miniature technology based society in itself. The two fold fundamental variables of the study obviously include:

(a) The learning strategy, especially the Multimedia Learning Package.
(b) The learning outcomes, in terms of performance- Achievement.

The retention of both the hypotheses of the study namely HI - At the end of experimental treatment, the group of pre-service teachers taught Educational Psychology through MMLP (Multimedia Learning Package) scored significantly higher on the achievement test than the group of pre-service teachers taught through the traditional method.; H2 - At the end of experimental treatment, the group of pre-service teachers taught Educational Psychology through MMLP (Multimedia Learning Package) showed significantly higher gain score on the achievement test than the group of pre-service teachers taught through the traditional method.
The result of the study can be interpreted in the context of global perspectives of education expected by world organizations like UNESCO. In the Multimedia Digital Learning Conference held in United States in August, 2006 in which countries like USA, India, Japan, England, Germany and global organizations like UNESCO participated, applauded multimedia as an innovative delivery model for Education, which has the potentials to surpass all expectations of quality and has established as making landmark contributions to the cause of education. This global accolade of multimedia provides a robust platform to Multimedia Learning Package based learning designed meticulously to meet the emerging challenges of a new world order through the process of education.

6.3 EDUCATIONAL IMPLICATIONS

The present research clearly shows that in changing from a traditional “chalk and talk” method to a Multimedia Learning Package enriched class, pre-service teacher's achievement does not diminish; rather it significantly improves. It implies that MMLP proves to be more tangible in its effectiveness on achievement than the traditional classroom approach. Multimedia Learning Package proves to be more practical and widely acceptable to teacher. Also the pre-service teachers of all percentage groups in the class attain comparably on achievement which shows that MMLP learning enables all types of pre-service teachers to perform better.

- Multimedia learning package helps the teachers to make his/her teaching – learning process totally interactive.
- MMLP 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 student to learn in a more effective manner, participate in discussion, participate in making of MMLP and give textual, audio, video, graphical and animation input for Multimedia Learning Package. So students feel being a part of the entire teaching learning process.
- The study has important implications for teacher education. Given the current widespread use of Multimedia Learning 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 MMLPs. The pre-service training may be given to teachers in the making and in-service training to the existing teachers.

- MMLP learning sessions in class may act as a source of edutainment (education plus entertainment) as well. The sessions may include games, Recreational activities like solving puzzles and riddles, holding group discussions on some general topics related to current affairs to create more interest among pre-service teachers. 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 MMLP based learning in the classroom.

6.4 SUGGESTIONS FOR FURTHER RESEARCH

The present study brings light to a number of new areas to be covered by future researchers. The following problems, if studied would help to broaden the perspective of the present study.

- The study should be repeated to explore how MMLP learning affects the student of various abilities on cognitive, emotional and motivational dimensions.

- There is need to compare MMLP learning with other methods of instructions at different grade levels.

- The study can be repeated on a large sample for validation and for a longer duration to examine the effects on non-cognitive variable like social skills self-esteem or some other personality variable which take more time to bring about a change.

- The study was tested for teaching of Educational Psychology for pre-service teacher of B.Ed. This may be done for other subjects and at all levels of education.

- Research is needed to compare the combination of various mediums/elements (text, audio, video, animation and graphics) of MMLPs i.e. up to what extent a medium is superior to others.

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There is need to study the integrated effect of MMLP with other institutional treatments. Also research is needed to study the role of MMLP as a compliment to traditional method of teaching.

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 Psychology and for various levels as well. Research is needed to study the effect of MMLP on Special groups of children such as gifted students, students with learning difficulties and other special needs.

6.5 OVERVIEW

Findings 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. MMLPs method can revamp the traditional teaching learning process and make it more effective. The findings suggest that multimedia can play a vital role in teaching of Educational Psychology, so educationists need to develop more sophisticated understandings of the conditions, circumstances, means and mechanisms through which multimedia can be closely connected to the pre-service teachers and their classrooms.