ABSTRACT

This empirical study attempts to craft a richer description, and deeper understanding, of the multimedia learning packages and its effectiveness for Environmental Awareness in Environmental Science. The teaching of Environmental Science is a journey; it is an unobtainable quest for perfection that nevertheless makes educators stronger as they pursue what they need to know and be able to do best to reach their students. Environmental Science is an ever evolving and dynamic discipline with a lot of practical work involved in the subject. The volume and depth of psychological problems, methodologies, and criticisms is growing geometrically every year, so it makes sense to take an innovative approach to teaching that can be better in the long run than letting it just filter in for the highly motivated teacher. At one time, multimedia was considered to be a very technical venture. When teachers talked about using multimedia in the classroom, they probably imagined a gaggle of sophisticated components being orchestrated by a human with five or six arms. Multimedia is no more a big hassle since computers today come already equipped with required hardware and software set up. Although this advancement in the technology has triggered the use of multimedia in the field of Education globally, still need based educational programmes catering to the syllabus of class VII as per CBSE are not available in India till date. So the investigator decided to develop syllabus based Multimedia Learning Packages to teach Environmental Science to the students of class VII and study its effects on them. A serious attempt has been made by the investigator to review the related research and non-research literature to broaden the understanding and to gain an insight into the selected problem under study. Journals, related research studies and articles were browsed in the established libraries.

The present thesis attempts to demonstrate the effectiveness of a Multimedia Learning Package (MMLP) for teaching of Environmental Science. The study establishes the effectiveness of MMLPs by comparing the achievement scores of class VII Students of two groups (experimental and control group) by teaching 5 selected topics in Environmental Science from their prescribed syllabus. The MMLPs adorned with text, audio, video, graphics and animation were developed by the investigator. This thesis develops an approach to understand the making of MMLPs and study its effectiveness. The findings of the Present study are exerted to benefit the students and teachers. Pre-Post-test, control-quasi-experimental group design was employed with purposive
sampling in the form of intact sections of class VII of the same school. It involved two groups of class VII students, experimental group and control group. The experimental group was taught through MMLP and the control group was taught the same content through conventional method. The design comprised of three stages. The first stage of study involved testing of schools achievement using self made achievement test. The second stage involved experimental treatment. The experimental treatment consisted of teaching five topics to class VII students of Environmental Science through MMLP to experimental group and through conventional method to control group. In the third stage the students of both the groups were post-tested on achievement of Environmental Awareness in Environmental Science, Opinionnaire for teacher, Development of MMLP for instructional treatment were the self-developed tools used for the present investigation. Descriptive statistics such as means, S.D’s and ‘t’ value were worked out on the score of achievement. At the end of experimental treatment, the group of class VII students taught Environmental Science through the Multimedia method showed a significantly higher gain score on the achievement test than the group of class students taught through the conventional method. The results of this analysis are statistically significant and have important practical applications for the field of education. Multimedia has the unique strength of communicating difficult concepts in simpler ways and, thus offers several advantages to the field of education.

The findings suggest that multimedia can play a vital role in the field of education, so educationists need to develop more sophisticated understanding of the conditions, circumstances, means and mechanisms through which multimedia can be closely connected to education. It will hopefully lead to a new learning method that is more comprehensible, useful and engaging than the traditional ‘Chalk and Talk’ method. Ultimately, the tools, techniques and methods evaluated in this work may help to create a new vision of what teachers can accomplish with multimedia in a variety of learning environments. It may lead to the development of multimedia based teaching pedagogies and curriculums that are better able to meet the needs, interests and ambitions of a new generation of learners.