ISSN 2278-8808
SJIF 2015: 5.403
An International Peer Reviewed & Referred
SCHOLARLY RESEARCH JOURNAL
FOR INTERDISCIPLINARY STUDIES

DEVELOPMENT OF COMPUTER MULTIMEDIA PROGRAMME ON ENVIRONMENTAL EDUCATION FOR IX STANDARD STUDENTS AND STUDY ITS EFFECTIVENESS

Dipak Chavan, Ph. D.

Associate Professor, Tilak College of Education, Pune (M.S.)

1. Introduction

Environmental Education is a compulsory subject at school level. Textbooks are also available for this subject. When we use Computer in our teaching and learning, it will become more effective. The Computer Multimedia is very powerful for understanding the concepts and ideas among the textbook. Such Computer Multimedia Programmes for other subject are available for other school subjects but they are not available for Environmental Education subject, Therefore the researcher decided to develop the computer multimedia programme for IX standard students on Environmental Education. Thus the present study focused on the development of computer multimedia programme for IX standard students on Environmental Education.

2. Statement of Aim

To develop computer multimedia programme for IX standard students for Environmental Education and study its effectiveness

3. Operational definitions

1. Computer Multimedia Programme

The power point presentation developed on computer which includes the sound, graphics, and text is the Computer Multimedia Programme.

2. IX standard students

The students studying in IX standard class of secondary school are the IX standard students

3. Environmental Education: The compulsory subject at school education which includes the content related to the Environment, its components, Ecosystem, Natural resources, Conservation of Natural resources. This content is given in the Textbook.

4. Objectives of the Study

1. To assess the available computer multimedia programmes
2. To analyse the content of Environmental Education for computer multimedia programme development.
3. To develop computer multimedia programme for IX standard students for Environmental Education
4. To study the effectiveness of developed computer multimedia programme.

5. Hypotheses of the Study

1. There will be no significant difference in the pre-test and post test scores of the Experimental group.
2. There will be no significant difference between the test scores of the Experimental group and Control group

6. Assumptions

1. Environmental Education is compulsory subject at school level.
2. Textbooks for Environmental Education are available.
3. Computer Multimedia are effective tool for better learning.

7. Scope, Limitation and Delimitations

Scope: This study is related to the students of IX standard studying in the secondary schools in Pune city

Limitations: The conclusions of the study will be dependent on the responses given by the students to the data collection tool and the Programme.

Delimitations:

1. The study is limited to the schools in Pune city.
2. It is restricted to the Marathi medium schools only
3. It is also limited to the IX standard students only
4. The Computer Multimedia Programme is only for few Units of the Environmental Education content.
5. The Computer Multimedia Programme is developed by the researcher.
6. The tool for data collection is developed by the researcher.

8. Research Methodology

i. Method of research

Multi-method of research was used for this study. To develop computer multimedia programme for IX standard students for Environmental Education the project method was adopted while to study the effectiveness of developed computer multimedia programme Experimental method was used. Two equivalent group pre test- post test design was utilised.

ii. Population and sample

The population considered for this study was all the IX standard students from the secondary school students in Pune City.

The sample for the present study was the IX standard students from two secondary schools from Pune City. The sample was selected by purposive sampling method. It includes 80 students 40 students from control group and 40 students from experimental group.

iii. Tool for data collection

For the present study the researcher developed Environment Knowledge Test was used as a tool for data collection. This researcher made Environment Knowledge Test is based on the syllabus of Maharashtra State Board of Secondary and Higher Secondary Education for Environmental Education.

iv. Statistical Techniques

To study the effectiveness of Computer Multimedia Programme, mean and standard deviation has been used. To test this effectiveness the significant difference between mean scores of different variables, t- test has been used. The collected data also represented graphically with the help of the bar graphs.

9. Conclusions

1. Computer Multimedia Programmes for IX standard students for Environmental Educations are not available in the market.
2. The content of Environmental Education textbook of Maharashtra State Board of Secondary and Higher Secondary Education for IX standard is analysed for the development of computer multimedia programme development.
3. The Computer Multimedia Programme on Environmental Education for IX standard is developed.
4. The IX standard students' Environmental Knowledge is below average before the implementation of the Computer Multimedia Programme

5. The IX standard students' Environmental Knowledge is above average after the implementation of the Computer Multimedia Programme

6. Environmental Knowledge of IX standard students is increased after the implementation of the Computer Multimedia Programme.

7. The IX standard students' Environmental Knowledge is average in the control group after the traditional teaching of Environmental Education.

8. The IX standard students' Environmental Knowledge is above average in the experimental group after the implementation of the Computer Multimedia Programme

9. Environmental Knowledge of IX standard students is increased in Experimental group.

10. The Computer Multimedia Programme on Environmental Education for IX standard students is effective.

10. Recommendations

Through the experience of the present study and the conclusions, the researcher gives some recommendations as follows-

1. It is necessary to use the Computer Multimedia Programme on Environmental Education for IX standard students.

2. It is also required to develop use the Computer Multimedia Programme on Environmental Education for standard V to VII students as well as standard X to XII students.

3. It is also required to develop use the Computer Multimedia Programme on Environmental Education for the students at Higher Education and Teacher Education.

11. Suggestions for further Research

The present study suggests the need for carrying out studies of following type.

1. Studies on Environmental Education may be extended to other educational levels, viz., primary, secondary, degree, post graduation, at district as well as state level.

2. Studies may be conducted on Environmental Education to identify Environmental awareness, Environmental Attitude, Environmental Interest and their relation with other psychological variables in order to enhance the Environmental Knowledge.

3. Studies on Environmental Education may be extended to Teacher education level.

4. Studies on development and standardization of the tool for measuring Environmental Knowledge, Environmental awareness, Environmental Attitude and Environmental Interest of students at primary, secondary and higher level may also be taken up.

5. Studies may be conducted on the relationship between students' Environmental Knowledge and other correlates.

12. Contribution to the Society

This is knowledge based society the use of computers and ICT is increasing day by day. Now a day's ICT is widely used in Education. Therefore, teacher and teacher educators should use of the potential of these technologies in classroom transactions. ICT can be integrated meaningfully with learning activities.

The teaching of Environmental Education can become more effective by using Computer Multimedia Programme. The present study is likely contributed to increase the knowledge of students in Environmental Education. A Computer Multimedia Programme on Environmental Education is developed by the researcher and it is ready to use. Environmental Knowledge Test is also prepared for IX standard students and it is also ready to utilise. Thus the product Computer Multimedia Programme for IX standard students on Environmental Education is the output of this project. Similarly, Environmental Knowledge Test is also prepared for IX standard students is also the output of this piece research work.

This research work will be useful for students, teachers, teacher educators, administrators and policy makers.

References

Bharucha, E., (1998) Handbook on Environment Education for Teachers, Pune, Bharati Vidyapeeth's Institute of Environmental Education and Research

Garrett, H. E. (1981) Statistics in Psychology and Education, Bombay , Vakils, Feffer and Simons Ltd.

Ghanta, R. Digumurti, B. (1998) Environmental Education - Problems and prospects, New Delhi, (Discovery Publishing House

Government of India, Ministry of Education (1986) National Policy of Education – 1986, New Delhi - Ministry of Education, Government of India

Sharma, P. D. (1999) Ecology and Environment, Seventh edition, Meerut, Rastogi Publications

UNESCO (1981) Environmental Education in Asia and the Pacific - Bulletin of Unesco Regional Office for Education in Asia and the Pacific Number 22,

UNESCO, (1990) Source Book in Environmental Education for Secondary School Teachers, Bangkok, UNESCO