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DEVELOPMENT OF COMPUTER MULTIMEDIA SOFTWARE PACKAGE ON DISASTERS AND DISASTER MANAGEMENT

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INTRODUCTION

Man has always been fascinated by the Wonders of Nature. The most powerful component of the ecosystem has exploited the environment to gain short term benefits, and caused irreparable damages. The nature in its own course has also many time caused calamities whether man has been directly or indirectly responsible for the same. The calamites caused are called disaster. The world is becoming increasingly vulnerable to natural disaster such as earthquakes, flood drought landslides and cyclones etc.

The decade 1990-99 was declared as the International Decade for Natural Disaster Reduction with emphasis on the disaster Management planning for prevention education, mitigation preparedness and response to reduce the loss of life and property due to natural disaster .The implementation of the Disaster Management plan can be implemented through the various agencies.

The most powerful agency which can simultaneously reach out any information to the larger population in the formal educational system . The school and college- going student can easily be educated and trained as open for Disaster Management and reach out to their families as well as the society.

There are many methods by which the knowledge of Disaster Management can be transmitted. Today the role of ICT as an effective method of educating people is proved. This technology (ICT) can be exploited and used to pass on the knowledge of Disaster and Disaster Management.

By using Computer multimedia software package researcher develop software on Disaster and Disaster Management based on topics prescribed for 9th std. syllabus of Maharashtra state.

Statement of a Problem

DEVELOPMENT OF COMPUTER MULTIMEDIA SOFTWARE PACKAGE ON DISASTERS AND DISASTER MANAGEMENT CONTENT INCLUDED IN NINTH STANDARD SYLLABUS OF MAHARASHTRA STATE –A STUDY.

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Objective of study

1. To analyze the syllabus of Ninth standard Marathi medium school to find out the content related to disaster and disaster management.
2. To develop computer multimedia software package on the content related to disaster and disaster management for Ninth standard Marathi medium schools.
3. To test the effectiveness of developed multimedia software package.
4. To test achievement of students those are from rural area and urban area.
5. To test achievement of girls and boys due to multimedia program.
6. To make suggestions for effective use of developed package to parents and schools.

Variables :

Independent Variables:- a. Computer multimedia package.
b. Traditional method of teaching disaster management.

Dependent Variables :- **a. Achievement in Disaster management in the Students**
b. Understanding the concept of disaster management. Of 9th std. Students.

Controlled :- **a. Disaster management content included in the syllabus of 9th std. of Maharashtra state.**

NULL HYPOTHESES

1. There is no significant difference between the pre-test scores of control and experimental group.
2. There is no significant difference between the post-test scores of control and experimental group
3. There is no significant difference in pre-test scores and post-test scores of control group.
4. There is no significant difference in the pre-test scores and post-test scores of experimental group.
5. There is no significant difference between the post-test scores of Rural and Urban students of experimental group.
6. There is no significant difference between the post-test scores of Rural and Urban Students of control group.

7. There is no significant difference between the post-test scores of girls and boys of experimental group.
8. There is no significant difference between the post-test scores of girls and boys of control group.

SCOPE OF THE STUDY

1. It will be applicable for all Marathi Medium school of M.S. Board of sec. and HSC. Education.
2. The study will be applicable for all Marathi Medium Scholl in Nashik District.
3. The study includes Natural and Manmade Disaster from IX std. syllabus prescribed by state Gov. of Maharashtra.

Delimitation of Study

1. The study was limited to the content included in the IX std. syllabous prescribed by the Maharashtra state .
2. Ninth standard Marathi medium schools with computer facility was considered.
3. Multimedia Software package was used for small group instructions (one classroom at a time.)
4. The computer multimedia software was developed in Marathi language.
5. The effectiveness of the prepared computer multimedia software package was tested on Ninth standard school children in Nashik District.

Assumption of Study

School students who learn using the computer media software package will perform significantly better as compare to the school student who learn through traditional method.

Significance of the study.

1. No such research work has been undertaken in India this computer software package can be used by any student any ware wanted to learn the topics at the level for which it was developed.

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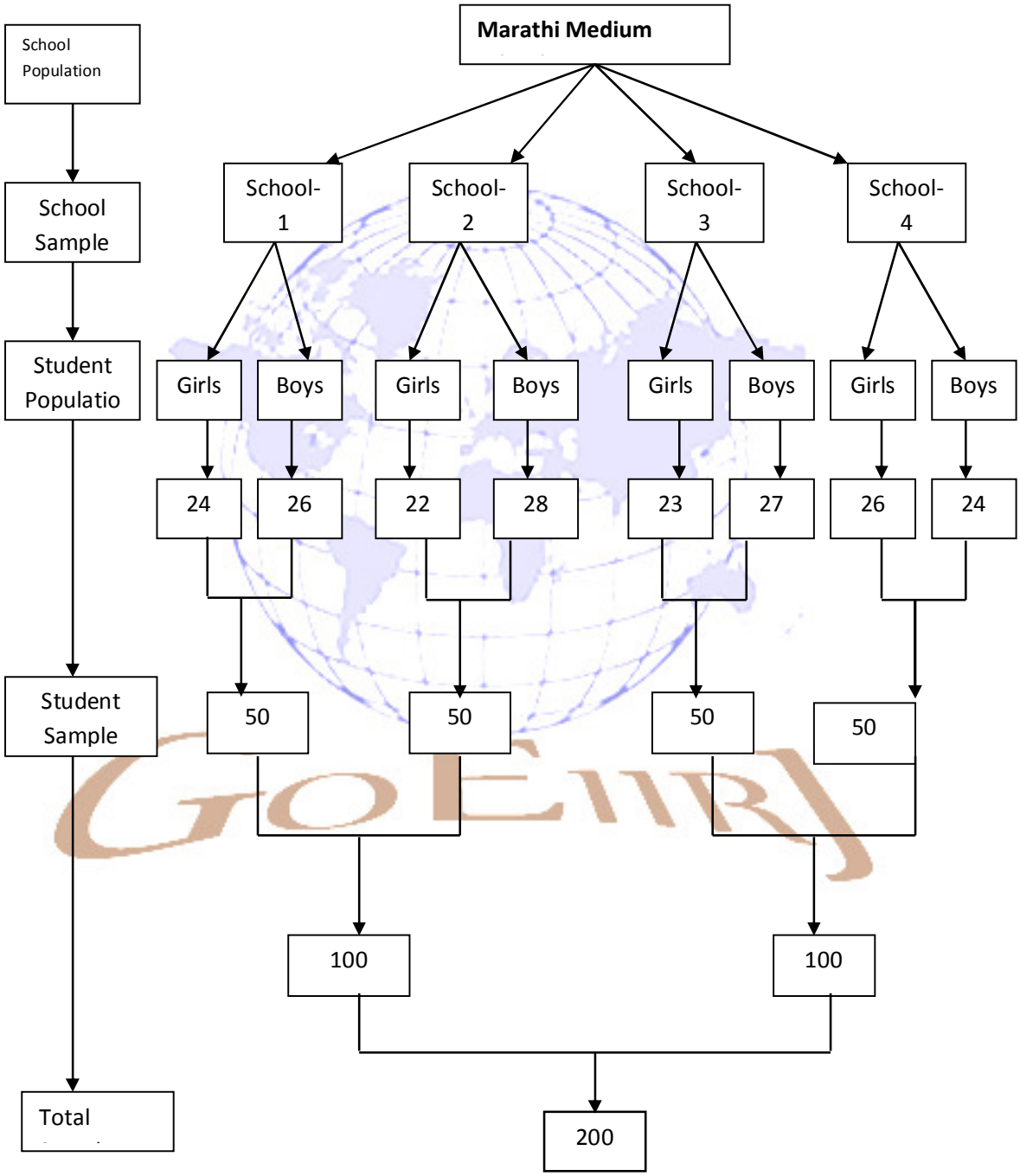
Sample design of the study.



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Construction of Tool

1. **Pre development stage.** 2. **Development stage.**
3. **Post development stage**

Predevelopment step

1. **Content analysis** 1. **Story board writing**
3. **Collection of necessary materials.**

Details of Product

Section	Title	Content	Time	Multimedia	Interaction
I	**Relation of man and nature**	**Nature & man**	**25 Minutes**	**Audio, sound, Music, Picture, Video , Animation**	**Question Answer**
II	**Natural Disaster**	**Earthquake,** Volcano, Tsunami, Flood, Dry, Cyclone	**25 Minutes** 25 Minutes 25 Minutes 25 Minutes 25 Minutes 25 Minutes	**Audio, sound, Music, Picture, Video , Animation**	**Question Answer**
III	**Manmade Disaster**	**Terrorism Population, Pollution,** Accident, Fire,	**25 Minutes 25 Minutes 25 Minutes 25 Minutes 25 Minutes**	**Audio, sound, Music, Picture, Video , Animation**	**Question Answer**
IV	**Disaster Management**	**Nature** Stapes of Disaster Management, Disaster Cycle, Examples. Responsibility.	**25 Minutes 25 Minutes 25 Minutes 25 Minutes**	**Audio, sound, Music, Picture, Video , Animation**	**Question Answer**

Data Gathering Tools

Researcher made Pre- test

Researcher made post-test

Content Analysis Technique

Content Analysis Technique was used for Analysis the content related to disaster and disaster management in syllabus.

Statistical technique

Researcher has done colitetive research for the present study. and used

't' score for statistical analysis

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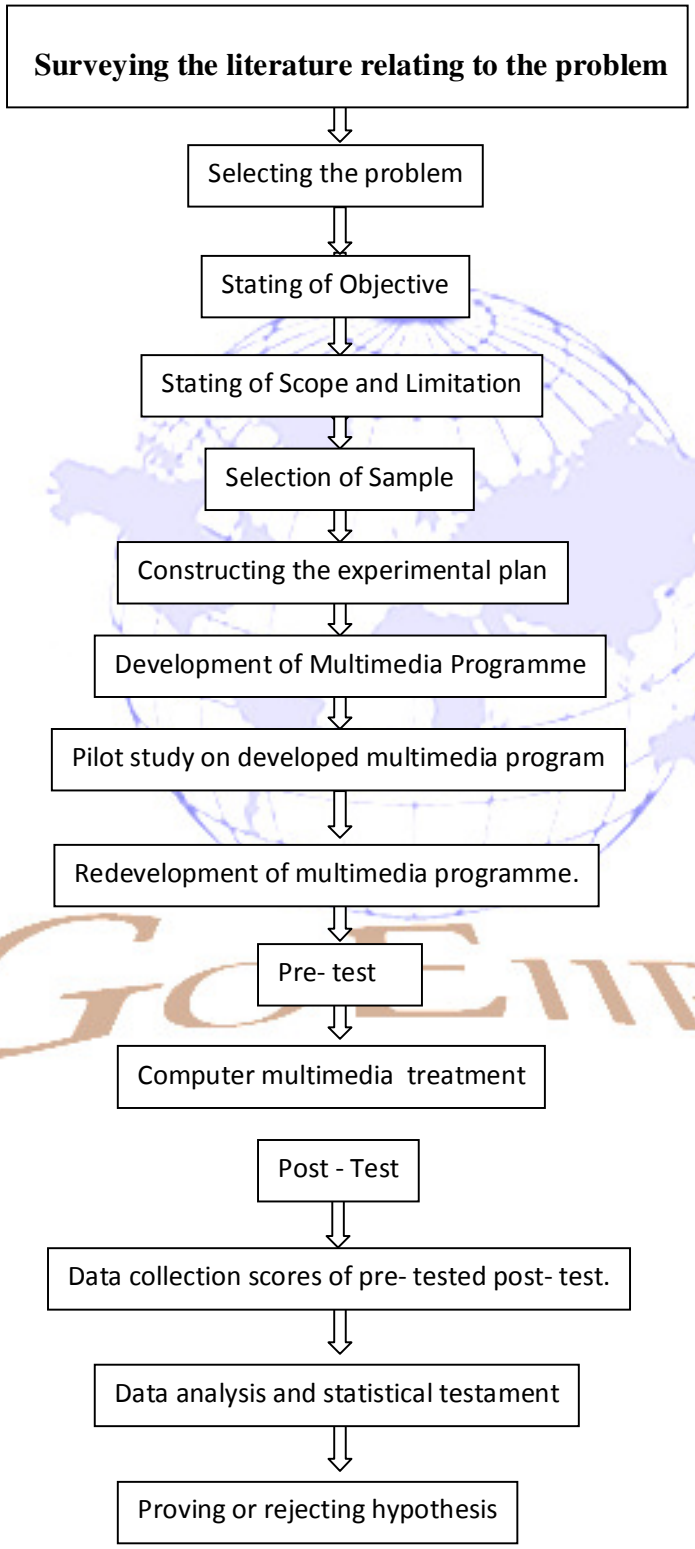
Research Procedure



Research Procedure.

The researcher has studied the literature related to education field. Researcher has investigated the need in the field of education and decided problem related to multimedia programme. Then researcher has studied the literature on multimedia in education, Disaster Management education, defined the problem. With the help of guidance of guide researcher has stated objectives, scope and limitations of problem. Researcher formulated total experimental plan. The researcher has selected Marathi, Medium schools of secondary level for the experimental research. Researcher selected 2 school from Rural and 2 school from Urban aria. 50 student from each school total sample is 200 for the research. Pre-test , Post-test parallel group design experiment.

With the help of computer institute and expert instructor researcher developed multimedia programme on Disaster and Disaster Management content. Researcher showed CD to expert researcher has taken pilot study on developed multimedia programme. Then researcher has redeveloped multimedia programme. With the help of subject teacher researcher has formulated blue print for pretest and post test. Researcher has conducted pre-test for equals two group. Experimental group, researcher applied experimental treatment on sample. Researcher has collected data according names of students. Researcher analyzed collected data according to achievement of girls and boys students, rural area and urban area,. Researcher was collected data. Researcher was classified and analyzed collected data**.**

Results

1. Multimedia is useful for self study of the student. (Table No. 3)
2. Information from this developed Educational software is useful and related to the content. (Table No. 4)
3. Developed Educational software is easy to handle. (Table No. 5)
4. It is easy to comprehend the unit to the student due to multimedia set. (Table No. 6)
5. Researcher can make any other influential media other than developed Multimedia. (Table No.7)
6. Multimedia is appropriate on the basis of input and out put given to student. (Table No. 8)
7. It is appropriate to prepare Interactive multimedia for teaching. (Table No. 9)
8. To Teach the student Disaster and Disaster Management content is influential other teaching method than multimedia. (Table No.10)

9. Developed Multimedia is best in comparison than the available multimedia in the market (Table No. 11)
10. 9th std. syllabus of Maharastra State is having Content related Disaster and disaster management. (**Objective 1st** Table No. 12)
11. Developed Multimedia was useful for teaching disaster and disaster management content included in 9th std. syllabus of Maharashtra State (**Objective 3nd** Table No. 3 to 11)

Effectiveness of developed multimedia software package. (Objective 3nd Table No. 13 to 20)

1. There is no Significant difference between pre-test score of control and experimental group. (Table No.13)
2. There is Significant Difference between Post- test score of control and experimental group. (Table No. 14)
3. There is no Significant difference between Pre-test and post-test of control group. (Table No. 15)
4. There is significant difference between Pre-test and Post-test score of experimental group. (Table No.16)
5. There is significant difference between pre-test score of Girls and Boys of Experimental Group. (**Objective 5th** Table No 17.)
6. There is significant difference between Post-test score of Girls and Boys of Experimental Group. (**Objective 5th** Table No. 18)
7. There is no significant difference between pre-test score of Urban and Rural Student of Experimental Group. (**Objective 4th** Table No.19)
8. There is significant difference between Post-test score of Urban and Rural Student of Experimental Group. (**Objective 4thnd** Table No. 20)

Conclusion And Discussion of Findings

Objective 1 To analyze the syllabus of Ninth standard Marathi medium school to find out the content related to disaster and disaster management.

Conclusion 9th std. syllabus of Maharastra State is having Content related Disaster and disaster management. **(Table No. 12)**

Objective 2 To develop computer multimedia software package on the content related to

disaster and disaster management for Ninth standard Marathi medium schools.

Conclusion The Multimedia software package is developed as pre the development stages by using Moviemaker software. **(Table No.3 to 11,Appendix No -XIV)**

Objective 3 To test the effectiveness of developed multimedia software package.

Conclusion Developed Multimedia software is effective **(Table No. 13 to 20)**

Discussion This Conclusion is Supported to the parallel researcher like **Basu, M.K. (1981)** , **Mahajan, S. (1991)** ,**Chetanlal, Neera (1998)** ,**Eimann, M. and Keller, J. M.. (2006)** ,**Patron, B.S. (2006)** ,**Baviskar, C.R. (2007)** ,**Bhapkar D.S. (2008)** ,**Chiniwar, P.S. (2009)**

Objective 4 To test achievement of students from rural and urban area.

Conclusion There is no significant difference in achievement of Urban and Rural Student . **(Table No.19,20)**

Discussion This Conclusion is Opposite to the parallel researcher like **Chetanlal, Neera (1998)** **Baviskar, C.R. (2007)** ,**Bhapkar D.S.**

Objective 5 To test achievement of girls and boys due to multimedia program.

Conclusion Girls Achievement is more than the boys achievement (Table No. 17,18)

Discussion This Conclusion is Supported to the parallel researcher like **Basu, M.K. (1981)**,**Eimann, M. and Keller, J. M.. (2006)** ,**Patron, B.S. (2006)**

This Conclusion is Opposite to the parallel researcher like **Chiniwar, P.S. (2009)**