Development and Validation of E-Content on Massive Open Online Courses in Higher Education

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***Abstract*—E-learning is the use of electronic media, educational technology and information and communication technologies in education. E-learning can occur in or out of the classroom. It can be self-paced, asynchronous learning or may be instructor-led, synchronous learning. An innovative application of computer in the teaching and learning process is e-content. This includes text, video, audio, animation and visual environments. e-content is the advancement of technology to design, deliver, select, administer and extend learning. e-content includes all kinds of content created and delivered through various electronic media from old media such as print and radio to the increasingly sophisticated electronic tools with combination of sounds, images and text. e-content requires huge amount of creativity both at information level as well as at technology level. The purpose of this study is to develop and validate e-content on the topic Massive Open Online Courses in Higher Education.**

***Index Terms*—Development, Validation, E-Content, Massive Open Online Courses, Higher Education.**

I. INTRODUCTION

E-learning includes numerous types of media that deliver text, audio, images, animation, and streaming video, and includes technology applications and processes such as audio or video tape, satellite TV, CD-ROM, and computer-based learning, as well as local intranet/extranet and web-based learning. E-learning can occur in or out of the classroom. It can be self-paced, asynchronous learning or may be instructor-led, synchronous learning. e-content includes all kinds of content created and delivered through various electronic media from old media such as print and radio to the increasingly sophisticated electronic tools with combination of sounds, images and text. e-content requires huge amounts of creativity both at information level as well as at technology level.

1.1 Development and validation of e-content package

One of the objectives of the present study is to develop and validate e-content package on the topic Massive Open Online Courses in Higher Education. In order to prepare and validate the e-content package the investigator followed a number of steps, which are given under the following headings.

1.2 Identification of topic for e-content package

In order to develop an e-content package the investigator selected the topic Massive Open Online Courses in Higher Education after consultation with Educationists and professors working in the Colleges of Education.

1.3 Identification of teaching points

The investigator identified the teaching points for the topic Massive Open Online Courses in Higher Education.

II. REVIEW BY EXPERTS

The investigator presented the teaching points to the Educationists and professors working in the Colleges of Education and they were appraised about the purpose of the experiment. After this, Professors verified and reviewed the teaching points. This ensures content validity and face validity of the items.

Table 1 Development of e-content package

Content	E-Content
Major Platform offering MOOCs	Images
Opportunities in MOOC based courses	Audio
Challenges in MOOC based courses	Power Point Presentation
Advantages of SWAYAM Courses	Images

Terminologies related to SWAYAM	Animation
National Coordinators of SWAYAM	Visual
Life Cycle of SWAYAM - MOOC	Visual
Credit Mobility of MOOCs	Video
Pre-production activities (12 weeks/Online Course)	Audio-Voice Rendering
Production activities (8 weeks/ Online Course)	Images
Post production activities (4 weeks/Online Course)	Graphics
Review of the Course content and approvals	Graphics, Power Point Presentation

III. DEVELOPMENT OF SCRIPT FOR E-CONTENT PACKAGE

After consultation with experts the researcher prepared the script for the e-content package. The script was prepared not missing even a single teaching point for the study of the topic Massive Open Online Courses in Higher Education. Based on the script the investigator developed the e-content package for the above topic. The developed script was given to Education Professors to check the accuracy of content of the script.

The following steps were used to develop the scripts

a) Knowing the subject: Gathered all the materials, met people, went to libraries red newspaper, reviews on relevant documents were done. Materials were collected widely.
b) Arranging the sentence packets as logically as possible going from familiar to unfamiliar ending with appropriate conclusions.
c) Rewriting and necessary finishing was done to give the final product unity, proportion and continuity.
d) The drafting of the full-length scripts with a complete list of visual illustrations and accompanying sound, voice and music.

The shooting script was made by breaking down the screen play into shots by the investigator and taking care of the details of the technical aspects. The shooting script was the blue print of the whole e-content. It gave the complete picture of the final schedule. It had all the details of camera dimension, lighting suggestion, music and sound. This is how the script was transferred into e-content form.

IV. DEVELOPING VISUAL CONTENT

After the scripts were written, the contents of the selected topics were transferred into the form of visuals. Visuals were made to use for illustrative talk, When Audio instruction presented with the use of visuals, it clarifies the concept and leads to the meaningful association of ideas. As far as the visual components were concerned, visuals/ graphics such as charts and diagram were made. Rough drafts of simple and uncluttered layouts were prepared. Then these sketches were given to the artist for preparing final drawings. Charts and diagrams were prepared initially and the e-content with logical sequence were shot from the visual.

Table 2 Schematic presentation of development of e-content package

For the development of e-content package		Purpose
1.	Educationists and Professors working in the Colleges of Education	For getting ideas regarding construction of e-content package and identifying teaching points of Massive Open Online Courses in Higher Education.
2.	Ten Prospective Teachers studying in the Colleges of Education.	For trying out the e-content package
3.	Two Experts working in Bharathidasan University.	For validating e-content package

V. TRY OUT OF E-CONTENT PACKAGE

The prepared e-content package was played back to Ten Prospective Teachers studying in the Colleges of Education and necessary corrections were made in prepared e-content package after getting the feedback and suggestions from the above perspective teachers.

VI. VALIDATION OF E-CONTENT PACKAGE

In order to validate the e-content package, the investigator gave the e-content package to two experts working in Bharathidasan University, Trichy, Tamil Nadu. Then two experts gave their feedback. Based on their feedback modifications were done in the

package. The modified e-content package was again reviewed by the experts. This approved the final form of the e-content package.

VII. CONCLUSION

In this present study the investigator has developed and validated e-content package on the topic Massive Open Online Courses in Higher Education.

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