

Design of Courseware for e-Learning

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Abstract

The growth of the information and communication technology has brought sea change in the lives of people in almost every sphere of life. To make the best use of the new technologies, particularly in education and training the concept of eLearning is evolved. eLearning is a rapidly emerging market that will increasingly influence how one learn in schools, in the work force, and at home. Technology plays a key role in ensuring that lifelong learning programs are easy to use, convenient, and effective. The market for this sector includes educational content creation and delivery in schools, colleges and universities, at home and in corporate environments.

eLearning means the easy use of information and communication technology, including the Internet, to learn and teach.

The objectives of eLearning:

- It provides access to hardware, software and information and communication networks
- Simplify access to quality education and training for all
- Increase the cooperation between teachers, trainers and managers involved in establishing a "Educational zone";
- To collect and share information on the best practices based on the use of information and communication technology for learning;
- Improve innovation, know-how and expertise.

The eLearning initiative is open to cooperation with all interested parties and specialists in education and training.

Courseware design is a systematic approach to gather, analyse, design and interpret the information content for a particular topic in a specified manner. It involves study of the background of the students, for whom it is intended for, the length and time limits, syllabus identification, content presentation etc.,

This objective of the paper is to discuss the steps involved in Courseware design from basic topic selection up to the implementation of it, in the

current scenario with the present day technologies. This paper studies the various aspects of the courseware design. The Essential and most important part of eLearning is the Courseware Design, since the contents selection, analysis, design and presentation creates the total impact of learning and understanding. Courseware designers must consider general pedagogical issues such as appropriateness of the computer, appropriateness of the methodology, student practice, lesson length, and mastery level. Courseware design should adapt to the learner's skills and knowledge.

To design an effective courseware a number of factors concerning the good practices in education and Learning need to be reviewed. Students' learning styles, the purpose of education, and Mode of delivery of the course etc are to be chalked out.

The designing steps presented below are elaborated in the paper.

1. Definition of Education programme
2. Set Course Goals
3. Select and Analyse Course content
4. Design and Arrange Course Content
5. Understand and estimate students goals and Characteristics
6. Select effective instructional modes
7. Suggest readings and activities
8. Write the syllabus
9. Get feedback from students
10. Get advice from colleagues and other field Experts.

In courseware design writing objectives communicate expectations for a course. These statements provide a context for what will be learned. They are discipline-specific: knowledge, skills, attitudes, and behaviors. And non-discipline-specific: communication and presentation skills, moral values, and ethics. Objectives help students clarify their personal goals for a course and give them a framework to measure their success. Media are forms of expressions for content that is used in courseware design. Any combination of two or more media, such as text, video, audio, or

images, is defined as multimedia. Multimedia should support the educational objective and not be used just because it is available.

Also, Syllabus Design is part of the courseware design. A syllabus is the basic reference document and Navigator that guides the students and instructor throughout the course. A well-designed, thoughtful, organized syllabus improves the success of a course. It provides a time line with key events such as exams, papers, and projects highlighted.

This paper also discusses, the subject matter that is the content of the instructional program. The content should support the goals and objectives of the instructional program for the chosen audience. It should be relevant, accurate, verified, complete, and well organized. Content should emphasize the new and unfamiliar, while building on common basic knowledge in the audience. A clear and logical organization and sequence should support understanding and memorization of the material. Content must be supported by references.

Here, Language and grammar are important as it shows how the educational content is expressed

in writing. Reading level should be audience and content specific. Cultural bias should be avoided. Technical terms should be defined unless the audience can be expected to be familiar with them. Grammar, spelling, and punctuation should follow accepted conventions.

The Process of learning involves perceiving and processing information, attitudes, skills, and behaviors to make these part of a long-term memory and accessible when needed. Not all students learn as their peers or as their instructor. Each learner's learning style is based on the way that person perceives and processes information. Courseware design aims at all the above issues.

Last but not least, Evaluation and Assessment is part of the courseware design as the instructor has the responsibility to evaluate each student to provide feedback and assign a grade for the course. The instructor has a need to assess - to find out - what students are learning, if they have been learning, and, if they can, apply what they find out to new situations. A comparison of the general-courseware design and eLearning-courseware design will be presented.