

Roadmap to Effective Distance Education Instructional Design

Course Development Best Practices

Following are some tips to help you more effectively develop distance education courses.

"Modularize" The Course

When developing a distance education course, it is best to set up the course in modules or topics. Each module will have knowledge skills or concepts and separate content associated with it. For each module, develop competencies and outcomes (lessons). A semester-long course may have from five to 10 modules, and within each module may be several lessons.

Setting up the course in a modular way also helps prioritize and organize the content more easily. Whatever does not fit in the overall concept of a particular module should not be included in that module. The content that doesn't fit could be included in a different module or excluded completely. Modules help you focus. And remember, **the more planning, the better.**

Storyboarding

Especially for visual components in a distance-delivered course, instructional designers may wish to incorporate storyboarding into the development process. Storyboarding is a technique for sequencing visual, audio, and graphic elements as individual scenes. Many software programs are available that assist in the storyboarding process; however, one could use something as simple as PowerPoint to generate the overall look of the final product in a storyboard format.

Creating Materials

Keep in mind that there are a number of methods available to present course content. Choose the best methods. In a distance education environment, the "look" of the materials are almost as important as the content. The design -- **graphically, visually, and audibly** -- should be considered as the content is developed. The four primary components -- **text (words), graphics, audio, and video** -- can be incorporated into various media, including printed materials, Web pages, PowerPoint slides, and videotapes.

Integrating Interaction

Interaction, in a traditional or distance teaching environment, must be planned and orchestrated. Following is a list of the types of interaction you could incorporate into your distance education development and the teaching methods that you could use.

Types of Interaction	Teaching Methods
Learner-instructor: Involves presentation of information to students and the students' responses to the information	Lectures, question and answer, brainstorming activities, case studies, guests, interviews
Learner-learner: Occurs when the instructor provides opportunities for students to work together in small or large groups	Cooperative learning projects, debates, role-playing, panel discussions
Learner-content: Occurs when students reflect on and interact with the ideas and concepts presented in the content	Individual projects, homework assignments, interviews and surveys, computer-assisted instruction

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Usability

In a distance education environment, every effort should be made to make the materials as **user friendly** as possible. This includes having clear instructions on how to use software or access hardware. For example, it may be easier to have an "auto-run" feature installed on a CD-ROM than to have instructions for students to double-click on an operation on the CD-ROM. It might save you or the technical support person hours of phone calls or emails from students who didn't see or understand the instructions of how to get a software application to run from their CD-ROM.

Another aspect of usability is to make the materials – especially on-line materials – **easy to navigate**. It should make sense how navigation tools are arranged.

Lastly, consider your audience as you make **usable materials**. Undergraduate and graduate students have different life experiences and backgrounds that could come into play as you develop your user-friendly materials. Keep in mind that some students who are coming back to college for a master's degree after a long absence may not have the technology savvy as some of the younger, undergraduate students. So you have to think about how much "pre-training" you or someone on your staff will have to do with students to get them "up to speed" with using different technologies.

Copyright

A new copyright law, passed in October 2002, has major implications for distance education uses. The **Technology, Education, and Copyright Harmonization Act (TEACH Act)** permits the display and performance of virtually all types of works during online instruction without the consent of the copyright owner, provided that:

- the online instruction at an eligible institution is mediated by an instructor;
- the transmission of the material is intended only for receipt by students enrolled in the course, regardless of where the students are physically located;
- the institution must employ measures to prevent “retention of the work in accessible form by recipients of the transmission. . . for longer than the class session;” and
- the institution employs measures that limit the transmission of the material to students enrolled in the particular course and precludes unauthorized student retention and/or downstream redistribution “to the extent technologically feasible.”

The new law explicitly permits:

- Performances of nondramatic literary works;
- Performances of nondramatic musical works;
- Performances of any other work, including dramatic works and audiovisual works, but only in "reasonable and limited portions"; and
- Displays of any work "in an amount comparable to that which is typically displayed in the course of a live classroom session."

Institutions that want to take advantage of the TEACH Act must have copyright policies in place and must provide faculty, students, and staff members with information that “describes, and promotes compliance with, the laws of United States relating to copyright.” The institution also must provide students with a notice that materials may be subject to copyright protection. You

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should contact your university's attorney or delegated representative who handles copyright issues to find out what your institution's policies are regarding the TEACH Act. A comprehensive explanation of the TEACH Act can be found at these Web sites:

American Library Association: <http://www.ala.org/washoff/teach.html>

University of Texas: <http://www.utsystem.edu/ogc/intellectualproperty/teachact.htm>

Choosing the Correct Technology

Just as instructors should vary their teaching methods, they also should be encouraged to provide **media variety** to their distance education students. However, each technology has its own advantages and disadvantages. This table lists some of the major distance education technologies, along with their advantages and disadvantages.

	Advantages	Disadvantages
Printed materials	Portable, inexpensive, accessible, well-organized materials.	Low course completion rate. Time-delay delivering and receiving materials.
Videotape (Many videotape programs are now being recorded on CD-ROM or DVD.)	Portable, uses moving images and audio, maintains attention, easy for students to review videotape's content on VCRs.	Tends to be lecture-style presentation. Can be boring unless content is engaging or supplemented with non-classroom video segments. Time-consuming to produce video segments.
Videoconferencing	Live, two-way dialogue with teacher and other students. Adequate video quality with high-end systems.	Expensive. Must have access to special classroom. Interaction possible, but must be planned and encouraged. Poor video quality with some low-end systems.
Streaming video or presentations	Uses video or graphics and audio, maintains attention. Students can review a streaming lesson as often as they like. Can be easily updated without dubbing tapes.	Tends to be lecture-style presentation. Can be boring unless content is engaging. Requires planning on the instructor's part, and students must have current computer and a fast Internet connection.
Web/Web course tools (WebCT, Blackboard)	Can review computer materials anytime, anywhere online. Features in Web course tools packages (chats, bulletin board) encourage interaction.	Access to a computer, some technical knowledge necessary.
Online "discussion" methods: bulletin boards, chat sessions	Online "dialogue" with teacher and other students. Can be in synchronous (chats) or asynchronous (bulletin boards). Discussion can be added to.	Limited "conversations." Must be able to type well and quickly (chats).
Electronic mail	Easy to use, inexpensive, accessible worldwide.	Access to a computer. Some technical knowledge necessary.

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