

Instructional Methods for Distance Education¹

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Introduction

Much of the time, teaching with distance education technologies is a matter of adapting the teaching styles and instructional methods teachers have been using for years in the traditional classroom. This publication applies basic teaching principles to distance education technologies.

Instructional Design

“*Instructional design* is the art and science of creating an instructional environment and materials that will bring the learner from the state of not being able to accomplish certain tasks to the state of being able to accomplish those tasks” (Siemens, 2002, para. 5 emphasis added). Instructional design comes into play in any educational arena—not just distance education—when instructors try to identify which areas need to be taught to bring about the desired learning outcome in students (Dick & Carey, 1985). The following questions must be answered to determine the instructional design of the course:

- What is the need for the educational program?
- What are the goals and objectives?
- Who will be the learners?
- What will be the subject content (message)?
- What teaching methods and media will be used?
- How will learners be assessed?
- How will the course or lesson be evaluated with a view to improvement?



Figure 1. Focused young student working in the computer room.
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Needs Assessment

The *needs assessment* should take place before the rest of the design process is undertaken. The needs assessment determines why the instruction is required by defining the need. This is often referred to as identifying a gap in knowledge or performance. A needs assessment also determines whether an instructional method is what is required to address the gap or not. As Willis (1993) wrote, “What external data verify the need [for the course], what factors led to the instructional need, and what past experiences indicate that the instruction being planned can effectively meet this need?” (p. 1) This could be as formal as a survey to determine if the course is needed or as informal as the instructor’s observations and knowledge about the need for the content for a particular audience.

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Goals and Objectives

Goals and objectives structure your plan of action. Goals and objectives are as important in the distance education arena as they are in the traditional face-to-face classroom. Following is a brief definition of each and an example.

- **Goal:** A general statement of what you hope the course (or program) will achieve, perhaps expressed in terms of what you, the instructor, will be presenting to the learner.

Example goal statement: To introduce the learner to healthy eating habits.

- **Objective:** A statement of what learners should be able to do (or do better) as a result of having worked through the course (or program). The objectives should be measurable so that they can be evaluated after students' successful completion of the lesson or course.

Example objective statements: a) List the principal components of a balanced diet and describe the function of each in the body. b) Name six diseases caused by an inadequate or unbalanced diet.

The Learners

In any instructional environment, it is imperative to know as much about the *learner*—the intended audience—as possible. This is equally true for distance education. What are the audience members' ages, cultural backgrounds, interests, and educational levels? What is their familiarity with distance education technology and delivery systems?

In order to meet the learner's needs, you should

- learn about students' backgrounds and experiences,
- be sensitive to different communication styles and varied cultural backgrounds (e.g., humor is culturally specific),
- assist students in taking an active role in the course by independently assuming responsibility for their learning,
- make students aware of and comfortable with new patterns of communication to be used in the distance education course, and
- assist students in becoming familiar with the delivery technology and prepare them to resolve technical problems, should they arise.

The Message

What are you trying to say, and what is the best way to integrate the message with the technology? The message should be decided even before a medium (instructional

technology) is chosen so that you can match your message to the best available medium. Typically, a professor wants to cover too much content in a distance education class. Does this mean that you cover less material, that the distance education experience is a watered-down version of your regular class? Not at all. Many professors have found out that much of the material left out of their distance education classes really was not critical. Distance education has helped them tighten up their presentations and focus on what was absolutely necessary. They have then been able to incorporate the improvements in their traditional face-to-face classes.

Teaching Methods

Use a variety of teaching methods in your distance education course. Following are some suggested teaching strategies for use in distance education:

- **“Chunk” it.** Professors should teach in “chunks.” In courses that rely heavily on video or narrated PowerPoint slides, don't spend more than 15 minutes lecturing without some type of break, such as showing a short segment from a video, using graphics, having an online chat, including some type of application activity, or initiating a question-and-answer period. The break allows students to process what they have just learned.
- **Lay down “ground rules.”** Do this at the beginning of the semester and ensure that they are followed. For example in discussion boards, etiquette protocols should be established so that everyone knows how to respond to board posts.
- **Provide links to strong supplemental materials.** Include outside readings, videos, or similar resources as links from the course website.
- **Organize content.** Because of the logistics involved, presenting content at a distance usually takes more time than presenting the same content in a traditional setting. You can organize the content using a learning management system, such as Canvas, so that students know where material is located on each page and how to interact with both the content and the instructor.

The Medium

Select the medium (distance education technology) that meets the needs of your class. The medium choice should come after you decide what you want to say. In your courses, provide media variety to your students; integrate voice, video, and print or online resources.

Assessment

Students' knowledge of the content should be assessed over the duration of the course. Following are some suggested ways to assess student performance:

- **Peer evaluation of group activities.** Groups can produce projects or papers via distance education technologies. Allow group members to assess each other's performance.
- **Student self-evaluation.** Ask students to evaluate how well they think they did. This requires them to be somewhat introspective and helps them to learn from the experience.
- **Conventional exams.** These can be administered via online testing programs, at regional testing centers, or by qualified monitors/site facilitators.
- **Written reports and projects.** Written reports and projects provide students with the opportunity to synthesize the material they learned.

Evaluation

Evaluation should take place throughout the course. Decide on the criteria you will use to measure the distance education course's effectiveness and success. What can be done to improve the existing course? How well did you do? How can you change things? Did it meet the learners' needs? The primary reason to evaluate a course should be to *improve* it.

Formative evaluations can be conducted once or many times over the length of a course to find out students' reactions, attitudes, and achievements, always with a view toward improving the course (Holmberg, 1977). The idea behind the formative evaluation is to ensure the course or instructional product is meeting its stated goals as the course progresses throughout the semester.

Summative evaluations are given to students at the end of the course. They are used to determine the overall effectiveness of the class or instructional product. Summative evaluations usually focus on student performance, course relevancy, learner attitudes toward the delivery methods used, and the instructor's teaching style and effectiveness. Responses are used to improve the course for future students.

The Distance Education Development Team

Providing instruction to students at a distance is not the responsibility of the instructor alone. In the distance education framework, teamwork becomes important

in the development and dissemination of instructional materials (Brinkley, Pavlechko, & Thompson, 1991; Collins & Murphy, 1987; Kelly, 1990). Instructional designers and educational technologists provide expertise in particular areas in which the instructor does not have experience (Kelly, 1990). Support staff also play an important roles in the distance education environment.

- **Instructor:** The first member of the distance education team is the instructor or subject-matter specialist. These people are experts in their areas of content, not experts in the technology used to deliver instruction. However, instructors should understand the workings of the distance education technology used in the course (Thach, 1994). Such skills will make instructors more comfortable when interacting with the technology (Catchpole, 1992; Dillon, Hengst, & Zoller, 1991).
- **Instructional designer:** The distance education instructional designer must be knowledgeable of the resources available in a particular academic institution, must know how certain technologies and media work, and must serve as an intermediary between the instructor and technical specialists (Brinkley, Pavlechko, & Thompson, 1991).
- **Educational technologists:** These technologists include computer specialists and educational video producers. They have the production expertise to assist in the development of the program or course. Because of their professional backgrounds, they understand the specific instructional design needs dictated by the requirements of the media (Smith, 1991). The same person often performs both the instructional designer and educational technologist roles.
- **Support staff:** These individuals are the backbone of any successful distance education program. Support staff ensures that the little details are taken care of so a distance education program runs smoothly and successfully. Staff members handle such tasks as student registration, materials distribution, and facilities scheduling.

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