

Roadmap to Effective Distance Education Instructional Design

Instructional Design in Distance Education

Instructional design is the systematic and continuous application of learning principles and educational technology to develop the most effective and efficient learning experience for students. 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.

Specifically, the **instructional design process**, whether for a traditionally taught or distance education course, must address these key questions:

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

Needs Assessment

The **needs assessment** should take place before the design process is undertaken. The needs assessment, in essence, determines why the instruction is required. It defines the "need," based on such information as existing data (survey results, focus groups, case studies), a teacher's experiences, or societal needs.

In addition to determining the need for particular content, an **audience analysis** may need to be conducted at the onset. The audience analysis can be based on students who have taken similar distance education courses. Some items to consider in your audience analysis include:

- Demographics (age, educational level)
- Geographic location (proximity to support services)
- Technology skills/apprehension
- Prerequisite knowledge of the content

Goals and Objectives

Goals and objectives structure a course's plan of action and are important because:

1. They help instructional designers and instructors focus on what the important content is for a course.
2. They provide direction on how to assess students' abilities.

A brief definition and example of each follow:

Goal: A general statement of what the instructor hopes the course will achieve, perhaps expressed in terms of what will be presented to the learner. Broadly stated goals are helpful.

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

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Objective: A series of statements of what learners should be able to do as a result of having completed the course or course module. Objectives state the *conditions* under which learning should occur, the *performance* expected of the learner, and the *standard* to which the performance will be matched.

Example objective statements, based on the previous goal statement:

- a) List five of six principal components of a balanced diet and describe the function of each in the body.
- b) Name six of 10 diseases caused by an inadequate or unbalanced diet.

The keys to writing an effective objective statement are an **active verb** and a *content reference* that follows the verb:

name *the five steps in a process*

assemble *all parts of a machine properly*

write *a 500-word theme*

apply *a rule*

You can find out more about objectives by reading *Using Behavioral Taxonomies to Write Objectives*. In summary, when writing objectives for a course, you should:

- Identify a general goal for the instructional situation
- Specify the audience for the objective.
- Specify the behavior that will be the focus of the instruction.
- Specify the conditions under which the behavior will be taught and evaluated.
- Specify the degree to which proficiency in a behavior will be demonstrated.
- Combine the audience, behavior, conditions, and degree into one statement.

Learners

It's imperative for the instructor to think like a distance education student. Keep the learners in mind as you design the course. Think about what they want to know and how they learn. You can find out more about learners by reading *Distance Education Students* and *Helping Learners Succeed*.

Course Content: The Message

The **message or content** should be decided even before a medium – such as videotape, Web, or videoconference – is chosen. Good, sound content is at the heart of an effective distance education course, just as it is in a traditional course. Instructional designers can help instructors focus course content.

Throughout the content determination stage, you also should **think visually** about how the content will be presented/displayed to learners. In the distance education environment, the "look" of how materials are presented can be as important as the content. For example, diagrams, charts, videos, photographs and PowerPoint slides can be used to accentuate, simplify information, and provide "concreteness" to the content.

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Teaching Methods and Media (Technologies)

At a minimum, a course should provide a variety of media and teaching methods for students. The **medium (technology)** choice should come after instructional designers and instructors decide what should be covered (**content**).

Perhaps the most striking difference between the traditional classrooms and distance education courses is in the area of **communication and interaction**. In the distance education environment, instructors usually don't have the benefit of seeing students' nonverbal cues to gauge how well they're teaching. The feedback instructors receive from students' evaluations, telephone calls, and electronic mail messages will assist you in determining the course's success in getting information across. The **key**, then, to interactivity is *thoughtful instructional design* that takes into account the teaching objectives, creative **teaching methods**, and appropriate distance delivery technologies.

Assessment and Evaluation

To effectively assess learners' knowledge or skills following the completion of a distance education program, the assessment must be based on the learning objectives. Read about how to match objectives to assessment measures by reading *Using Behavioral Taxonomies to Write Objectives*.

In Closing...

Just remember. Good instruction is good instruction, regardless of how it is delivered or the technologies that are employed.