

# Teaching Online Courses

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## BACKGROUND

Online courses intend to present a non-traditional learning approach that accommodates non-traditional students. Working adults can achieve success in pursuing higher education degrees without compromising their work schedule. Online courses are flexible and convenient. Online teaching allows students unlimited access to the course materials and provides them with interactive and engaging instructional activities.

Web-based instruction allows students to perform online about any course activity that they would normally perform in a traditional classroom. In an online course, students can communicate with their instructor and each other, participate in a discussion, interact in an online virtual class, drop assignments into the instructor's digital drop box and receive his/her feedback, take online tests, and so forth. However, the face-to-face interaction of the traditional classroom continues to be a missing element from online courses.

Online instructors need to develop tangible Web technology skills and use them effectively in developing and delivering their courses online; they should not, however, underestimate the impact of the human interaction on the learning process. Sherry (1996) noted that "the most important factor for successful distance learning is a caring concerned teacher who is confident, experienced, at ease with equipment, uses media creatively, and maintains a high level of teaching with students" (p.5).

Hamza (2003) suggested that "educational Web sites face a challenge to incorporate virtual social human interactions into the learning mixes of these programs" (p.319).

Hamza and Alhalabi (1998) indicated that:

*technologies such as CU-SeeMee, QuickTime Virtual reality for educators, and QuickTime Video tutorial and software help to breach the physical and interactive communication gap between students and instructors by allowing students and instructors to have face-to-face meetings over the Internet. (p.36-39).*

Odasz (1999) also emphasized the significance of such technologies in bridging the interactive communication gap of Web-based instruction.

In a paper presented to the Society for Applied Learning Technology (SALT) at the Orlando, Florida, Conference, Aisami (2004) stated that:

*in order to have effective Web-enhanced instruction, instructors need to know not only what to teach and how to teach it, but also how to utilize the Web technology efficiently to deliver and manage the course instruction. If instructors know how to aim for effective instruction but do not have the skills of using the web to deliver it, then the purpose of the web-enhanced instruction is diminished. Likewise, if instructors are certain of their Web technology skills but are not as certain of how to develop a Web-based instruction that impacts the learning outcomes, then the web-enhanced instruction concept becomes irrelevant. (p. 2)*

Hence, developing and managing online courses is a comprehensive process that integrates both instructional system design (ISD) and the Web applications to achieve the intended learning outcomes. Designing and developing the course instruction before building its Web site facilitates not only the Web site building process, but also the process of delivering and managing the course instruction online.

## 5DS MODEL FOR TEACHING ONLINE COURSES

As shown in Figure 1, the 5Ds Model is comprised of five interrelated stages: Define, Design, Develop, Deliver, and Determine.

Basically, the infrastructure of the 5Ds Model replicates Ted McCain's 4Ds (Define, Design, Develop, and Determine) Model and incorporates the principles of the ADDIE (Analyze, Design, Develop, Implement, and Evaluate) Model that are reflected—one way or another—in all ISD Models. Kruse (2004) indicates that "there are more than 100 different ISD models, but almost all are based on the generic 'ADDIE' Model" (p.1).

While McCain's 4Ds Model, the ADDIE Model, and most of the last century's ISD Models were primarily established for the traditional instruction, the 5Ds Model intends to address online instruction and directly caters to the needs of distant learners. Furthermore, due to the nature of the instructional delivery mode of online courses, the 5Ds Model includes and emphasizes the "Deliver Stage," as a significant difference from McCain's 4Ds Model.

With the 5Ds Model, most of the teaching elements of online courses are built as the course instruction is being designed and developed. Instructor's lectures, instructional guidelines, projects, case studies, group activities, research activities, assignments, and assessment instruments are all developed in the preparation stage before the first online course instructional activity begins.

Unlike traditional classroom instruction, online courses require a specialized e-Learning Management System (e-LMS) to be delivered and managed on the Web. Hence, the 5Ds Model requires instructors' efficiency in building and managing the course Web site and students' proficiency in utilizing the Web technologies to participate in online courses. On the other hand, the 5Ds Model offers a flexible instructional delivery approach by which the presentation of information can be delivered to the target students in either expository form, in which students can learn in a step-by-step method, or discovery form, in which students have the choice of selecting their own learning pattern and pace. Bailey and Blythe (1998) refer to these two forms as a "linear and non-linear Web site design."

In the final stage of the 5Ds Model, the effectiveness of the online course is to be determined based on the students' performance on the course objectives. Upon course completion, instructors should collect not only quantitative data that includes students' scores on the pretest and post-test, but also descriptive data that includes students' feedback and comments about the instruction, the course Web site, and the instructional delivery. Collected data should be analyzed and utilized in revising the online course.

## DESIGNING ONLINE COURSE INSTRUCTION

As indicated previously, the 5Ds Model employs ISD to design and teach online course instruction. Today, there are numerous ISD Models, all of which offer an instructional systems approach that is based on the learners' needs and goals, and aim to produce effective instruction. Reiser and Dick (1998) defined the meaning of effective instruction as "instruction that enables students to acquire specified skills, knowledge, and attitudes, and an instruction that students enjoy" (p.3).

The 5Ds Model emphasizes that, for effective and enjoyable online courses, online instructors should design their online courses before posting the instruction on the course Web site. The 5Ds Model utilizes the following key principles for designing online courses:

1. Assessing students' needs and technological skills;
2. Defining the course overall goal;
3. Conducting goal analysis to determine the skills, subordinate skills, knowledge, and attitudes that students should acquire in order to attain the stated goal;
4. Identifying the course instructional objectives;
5. Developing instructional strategy to teach the course objectives online;
6. Developing online assessment instruments to measure students' performance on the course objectives;
7. Developing Web-based instructional materials including the multi-multimedia that is needed to teach the course objectives; and

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