Chapter 3.37
Design Levels for Distance and Online Learning

Judith V. Boettcher
Designing for Learning and the University of Florida, USA

INTRODUCTION

The importance of design for instructional programs—whether on campus or online or at a distance—increases with the possible combinations of students, content, skills to be acquired, and the teaching and learning environments.

Instructional design—as a profession and a process—has been quietly developing over the last 50 years. It is a multidisciplinary profession combining knowledge of the learning process, humans as learners, and the characteristics of the environments for teaching and learning. The theorists providing the philosophical bases for this knowledge include Dewey (1933), Bruner (1963), and Pinker (1997). The theorists providing the educational and research bases include Vygotsky (1962), Knowles (1998), Schank (1996), and Bransford, Brown, and Cocking (1999).

Instructional design offers a structured approach to analyzing an instructional problem and creating a design for meeting the instructional content and skill needs of a population of learners usually within a specific period of time. An instructional design theory is a "theory that offers explicit guidance on how to better help people learn and develop" (Reigeluth, 1999).

BACKGROUND

This entry describes a multi-level design process for online and distance learning programs that builds on a philosophical base grounded in learning theory, instructional design, and the principles of the process of change as reflected in the writings of the theorists listed above. This design model builds on traditional instructional design principles, as described by Gagne (1965), Dick & Carey (1989), and Moore & Kearsley (1996). It integrates the strategic planning principles and the structure of the institutional context as described in Kaufman (1992) and Boettcher & Kumar (1999), and also integrates the principles of technological innovation and the processes of change as described by E. M. Rogers (1995) and R. S. Rosenbloom (1998).

This entry describes a six-level design process promoting congruency and consistency at the institution, infrastructure, program, course, activity, and assessment level. It also suggests a set of principles and questions derived from that framework to guide the instructional design process.

SIX LEVELS OF DESIGN

Effective instructional design for online and distance learning benefits from instructional planning at six levels. Figure 1 summarizes these six levels of design, and identifies the group or individuals usually responsible for the design at that level and the length of the design cycle at each level. Ideally, the design at each of these six levels reflects philosophies of teaching and learning that are consistent with the institutional mission and consistent with the expectations of the students and society being served.

Level One: Institutional Design

The design work to be done at an institutional level is similar to the strategic planning and positioning of an institution. Institutional planning generally begins with an institution's current vision and mission statements and then proceeds through a data collection and input process that addresses a set of questions such as the following:

Institutional Questions:

- What programs and services comprise our primary mission? For whom?
- To what societal needs and goals is our institution attempting to respond?
- What life goals are most of our students working to achieve?
- What type of learning experiences are our students searching for?
- What changes in our infrastructure are needed to match our desired services, programs, and students?
- Does our institution have any special core competencies, resources, or missions that are unique regionally or nationally that might form the basis for specialized online and distance programs? What are the strengths of our mature faculty? Of our young faculty?

Figure 1. Six levels of design for learning

Six Levels of Design	Design Responsibility	Sponsor/Leader	Design and Review Cycle
Institution	Entire campus leadership and community	Provost, CIO and Vice-presidents	3-5 Years
Infrastructure	Campus and Technology Staff	Provost, CIO and Vice-presidents	2-3 Years
Degree, Program	College/Deans/Faculty	Dean and Chairs	1-3 Years
Course	Faculty	Dept Chair	1-2 Years
Unit/Learning Activity	Faculty	Faculty and or Faculty team	1-2 Years
Student Assessment	Faculty	Faculty and or Faculty team	1-2 Years

Related Content

Study on an Interactive Truck Crane Simulation Platform Based on Virtual Reality Technology
Yong Sang, Yu Zhu, Honghua Zhaoand Mingyan Tang (2016). *International Journal of Distance Education Technologies (pp. 64-78).*
www.irma-international.org/article/study-on-an-interactive-truck-crane-simulation-platform-based-on-virtual-reality-technology/151054

Employers' Perceptions of Online Degree Programs
Judith C. Simon, Jollean K. Sinclaire, Lloyd D. Brooksand Ronald B. Wilkes (2009). *Encyclopedia of Distance Learning, Second Edition (pp. 898-906).*
www.irma-international.org/chapter/employers-perceptions-online-degree-programs/11853

Self-Sustaining Ecosystem for Learning and Communication: Self-Directed Professional Development as a Desired Learning Outcome
Nailya Sh Valeyeva, Roman V. Kupriyanov, Julia N. Ziyatdinovaand Farida F. Frolova (2019). *Handbook of Research on Ecosystem-Based Theoretical Models of Learning and Communication (pp. 211-232).*
www.irma-international.org/chapter/self-sustaining-ecosystem-for-learning-and-communication/223582

Calling on Constructivist Theory to Support Internet-Based, Information-Rich Learning
Alan Pritchard (2005). *Encyclopedia of Distance Learning (pp. 196-203).*
www.irma-international.org/chapter/calling-constructivist-theory-support-internet/12106

Discovering the Role of Artificial Intelligence in K12: The Future of Online Platforms
Armana Hakim Nadi, Syed Far Abid Hossain, Mussanna Ahmed Safin, Mahbuba Rahman Sofinand Rahma Akhter (2022). *Designing Effective Distance and Blended Learning Environments in K-12 (pp. 314-326).*
www.irma-international.org/chapter/discovering-the-role-of-artificial-intelligence-in-k12/292187