Chapter IV

The Theory of Instructional Dialogue:
Toward a Unified Theory of Instructional Design

Paul Gorsky
Open University of Israel, Israel

Avner Caspi
Open University of Israel, Israel

Eran Chajut
Open University of Israel, Israel

ABSTRACT

This chapter presents a unified theory of instructional design in the cognitive domain; this includes, of course, online instructional modeling. The theory differs from specific instructional design theories in that it describes how all instructional systems operate (regardless of their goals) in terms of resources and dialogues common to all instructional systems; it predicts certain instructional outcomes (related to groups of learners, not to individual learners) based on given initial conditions. The theory affords practical and theoretical advantages. Practically, it (1) simply and accurately describes the mechanisms at play in instructional systems, (2) presents readily quantifiable operational definitions, (3) suggests hypotheses that may be evaluated empirically, and (4) points the way toward optimizing instructional systems. Theoretically, it (1) subsumes all current theories of instructional design and (2) views campus-based, distance and online instructional systems as a single discipline.
CHAPTER OBJECTIVES

The reader will be able to:

• Understand the unified theory of instructional design as a paradigm change
• Identify variables and processes common to all instructional systems
• Design instructional systems in accord with the theory’s rules of thumb
• Do research within the framework afforded by the theory

INTRODUCTION

This chapter presents a unified theory of instruction in the cognitive domain. The theory was originally proposed as a general theory of distance education (Gorsky & Caspi, 2005a) to replace the “Theory of Transactional Distance” (Moore, 1993), which may be construed as tautology (Gorsky & Caspi, 2005b). It is our belief that this theory can provide a most useful working model for analyzing, designing and evaluating any instructional system, be it “online” or “on-ground.”

The importance of theory to a discipline can hardly be overemphasized. The discipline of instruction, however, is characterized by a proliferation of theories (see Kearsley, 2004 and Reigeluth, 1998) that include a wide array of corresponding instructional approaches. Such approaches are routinely characterized as “anchored instruction” (Bransford, Sherwood, Hasselbring, Kinzer & Williams, 1990), “advance organizers” (Ausubel, 1963), “experiential learning” (Rogers, 1969), and “mastery learning” (Bloom, 1981; Carroll, 1963; Gagne, 1985), to name only a limited few. These theories and approaches, however, use different terminologies, use unique sets of variables and emphasize particular aspects of instruction, some of which are mutually exclusive. One outstanding example is the seemingly irreconcilable divide between behaviorist and constructivist theories. For example, in “experiential learning,” student control of curriculum and evaluation is emphasized while in “mastery learning,” instructor control of both is emphasized. In discussing the proliferation of instructional design theory and practice, Tennyson and Schott (1997) wrote that “it can lead to fruitless separations in our discipline so that specialists tend to forget the forest when looking to their trees of interest” (p. 13). Hannafin (1997) wrote:

New perspectives and approaches have, alternately, been the target of widespread skepticism, the focus of unbridled advocacy, and the object of scorn as advocates and critics position themselves to support or refute the legitimacy of a particular approach. (p.101)

We cite two practical alternatives for dealing with this current state of affairs. The first accepts theoretical diversity and suggests a methodology for dealing with it. Hannafin (1997) contended that instructional design decisions should be grounded in any defensible theoretical framework and defined criteria for doing so. He wrote:

Grounded design, therefore, argues not for the inherent superiority of one theoretical position or methodology over another, but for articulation of and alignment among the underlying principles that define them. It does not marginalize differences among perspectives, where such differences exist, but advocates approaches that reflect them. (p. 3)

The second alternative is to seek what Duchastel (1998) calls a “Physics-like grand theory of instructional design that would unify the current elements of disparity that we witness” (p.1). Although he does not suggest a solution, he cites four attributes required for any such theory or theoretical framework: comprehensiveness, abstractness, utility, and validity. Such a theory
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