Chapter VI

Applying Contextual Design to Educational Software Development

Mark Notess
Indiana University, USA

ABSTRACT

Contextual Design is a methodology for developing information systems from a rich understanding of customer work practice. This chapter considers how Contextual Design can be applied to educational software development and how Contextual Design might interact with Instructional Systems Design (ISD). Following a brief overview of ISD, I describe Contextual Design and provide a detailed case study of its application to educational software development — to the design of an online tool for music listening and analysis in undergraduate and graduate music education. I conclude with some reflections on the relevance of Contextual Design to instructional designers.

INTRODUCTION

Contextual Design is a methodology for designing information systems from a rich understanding of customer work practice (Beyer & Holtzblatt, 1998). This chapter considers how the Contextual Design methodology can be applied to the development of educational software and how Contextual Design might interact with Instructional Systems Design (ISD). I begin with a brief overview of ISD, brief because I assume readers of this chapter will already have some acquaintance with ISD. I then describe Contextual Design and provide a detailed case study of its application to educational software development — to the design of an online tool for music listening and analysis in undergraduate and graduate music education. I conclude with some reflections on the relevance of Contextual Design to instructional designers.

INSTRUCTIONAL SYSTEMS DESIGN

The ADDIE (Analysis, Design, Development, Implementation, Evaluation) model of Instructional Systems Design provides a general framework for designing instruction. The model seems to have emerged anonymously during the 1960s (Michael Molenda, personal communication, August 1, 2002) but has since become broadly known. In a 1988 booklet from ASTD, ADDIE is described as one of a variety of models for Instructional Systems Design (ASTD, 1988, p. 2). A Web search of "addie" and "instructional systems" yields hundreds of hits. ADDIE is widely known and is sometimes even described as *the* instructional systems design model (e.g., Fardouly, 1998).

However, ADDIE is not the only model for instructional systems design. Over the years, more refined, comprehensive, flexible models have evolved; it is these more recent models that structure the textbooks in the field (e.g., Dick & Carey, 1996; Kemp, Morrison, & Ross, 1998). For example, the Kemp, Morrison, and Ross model contains nine *elements* (their preferred term) instead of five (pp. 5-7):

1. Instructional problems
2. Learner characteristics
3. Task analysis
4. Instructional objectives
5. Content sequencing
6. Instructional strategies
7. Designing the message

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