8 Basic Design Procedures for E-learning Courses

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8.1 Introduction

Designing and developing instruction and learning is a complex process. Analysis of the behaviour of expert designers shows that it cannot be divided up into a simple, linearly ordered sequence of steps that, if duly followed, will inevitably lead to sound instruction (Kirschner et al. 2003). However, even if each expert has his or her own way of designing and developing instruction, we can still discern a number of phases that are an idealisation of the Instructional System Development (ISD) process. The five phases one often distinguishes are analysis, design, development, implementation, and evaluation (e.g. Reigeluth 1999; Morrison et al. 2004). Each phase concludes with a product. The evaluation phase, for example, typically results in an evaluation report that records the success, or lack thereof, of the entire design and development process, but often also serves as input for the next design and development cycle. Furthermore, each phase often involves using tools that improve the quality of the end product, or enhance efficiency or efficacy of the process. These tools may vary from checklists and manuals to software.

We start this chapter with a brief discussion of the five ISD phases, setting the stage for our main subject: a discussion of how the Learning Design specification (LD 2003) can assist and inform the Instructional Design (ID) process proper. The ID process focuses purely on the analysis and design phases of ISD and it is with respect to the analysis, design and development phases that the LD specification is particularly useful.

Two preliminary comments are in order here. First, in attempting to describe what it is that students are exposed to, designers design, developers
develop, and teachers act upon, we have found it rather difficult to identify a term that does not evoke all kinds of associations with existing learning and instruction paradigms or philosophies. The term ‘instruction’ suggests a preference for teacher-led education, and the term ‘learning material’ a significant role for content. There is no easy way to avoid seeming to subscribe to a particular educational philosophy to the exclusion of others. Yet, this is necessary in the present context because we want to explore the various ways in which LD may be utilised. We will therefore adopt the following terminological convention: ‘Instruction’ will be used both to denote the ensemble of ‘stimuli’ (documents, messages, discussions, etc.) that evoke learning experiences in students and support experiences in teachers. In addition, we will also use ‘instruction’ to denote the collective of learning and support experiences themselves. We will therefore deliberately confound the process of having experiences with the products that elicit those experiences. This simplifies our discussion without leading to confusion in the present context.

Secondly, the chapter is essentially about a procedure for bringing order to the process of designing instruction and for formally describing the resulting designs. Questions of project planning and proper staffing are involved, but their discussion will be left to Chap. 15. Similarly, there are various tooling issues; these are dealt with in Chap. 7.

8.2 An Overview of the Five ISD Phases

According to the ISD model, the entire instructional design and development process can be broken down into five phases. We will discuss these to point out how LD relates to them. Table 8.1 reviews these phases; the table also shows the structure of the chapter by relating the phases to LD-based products, a stepwise design procedure and some specific examples.