

1 An Introduction to Learning Design

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1.1 Introduction

How can we help people to learn in an effective, efficient, attractive and accessible way? There is no simple, straightforward answer to this question; depending on the specific situation, solution X will work best for person Y. However, it is generally acknowledged that we can improve learning considerably by making the conditions for optimal learning explicit, and then use this knowledge to design new learning events.

Our knowledge of learning design draws on different disciplines. It answers questions such as the following:

- What support do people need in order to learn?
- How can we assess and communicate the results of a learning process?
- How can we make learning and support as effective, efficient, attractive and accessible as possible for everyone involved in the process?

Implicit in these questions are issues related to the nature of knowledge, the nature of learning and the nature of motivation and social exchange. There are several ways to capture learning design knowledge, one of which is the instructional design approach. Here, knowledge is encapsulated in theories consisting of a set of design principles. Another approach is to identify best practices in teaching and learning, and yet another is to capture the knowledge in pedagogical design patterns. Such patterns take up a position in between theory and best practices in that they are abstracted from best practices. What a teacher believes about good teaching and learning is influenced by one or more sources. These are: prescriptions taken from instructional design theory; concrete examples of best practices; and patterns of experience. In each case, we will call the representation of this knowledge *learning design knowledge*.

A *learning design* is defined here as the application of learning design knowledge when developing a concrete unit of learning, e.g. a course, a

lesson, a curriculum, a learning event. Our assumption is that the quality of a unit of learning depends largely on the quality of the learning design, and, moreover, that every learning practice (e.g. a course) has an underlying learning design that is more generic than the practice itself. This is similar to the belief that every building has an underlying architecture which is more generic than the building itself. The design can be re-used over and over again at different times and places for more or less the same course (or building). This does not necessarily mean that the design is made explicit before it is used. That may well be the case when it comes to the architecture of buildings, but it is not common practice in education. There is (still) no real tradition in education of making formal notations of course designs that can be understood by anyone who is trained to read them. The lack of a common notation makes designing courses a very local or even individual event. It hampers broader communication about effective educational practice and impedes the evaluation of existing designs. It also makes it difficult to automate some or all of the design and delivery process. A notation would increase the effectiveness of education and training and reduce the overall cost by making it possible to automate the laborious, repetitive parts of the process.

In this chapter we introduce the concept of learning design. We examine what a learning designer must know in order to create high-quality learning designs, and we discuss the nature of this knowledge, how it can be modelled in terms of rules, and how the rules are derived. We use several examples to introduce the different modelling concepts. Our informal introduction to many of the concepts used in learning design sets the stage for the rest of this book. We do not discuss the specifications for a learning design (LD 2003) in any great detail, but we do introduce most of the basic modelling concepts by comparing learning design to a theatre piece and by providing several informal examples of learning design methods or lesson plans. We conclude the chapter by describing the requirements for a learning design notation, which will then be presented in the next chapter.

1.2 The Knowledge of the Learning Designer

In this chapter, we use the term ‘learning designer’ to describe those who have a learning design task to perform. They can be course developers, curriculum developers, teachers, trainers, coaches, mentors or learners who design their own learning plans. A learning designer’s basic task is to design a course that meets a set of learning objectives. Say, for example, that a learning designer wishes to develop a course on ‘Spanish as a Second Language’. How does the designer proceed? What steps must be taken to develop an effective course? Typically, the designer should seek solutions