



Chapter VII

What You See is All That You Get! A Practical Guide to Incorporating Cognitive Strategies into the Design of Electronic Instruction

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ABSTRACT

Incorporating good instructional strategies based on learning theory is vital for electronic instruction. After all, the instruction must stand on its own without any fallback to a “live” and experienced instructor. What you see is not only what you get, but it is all you get! As with most forms of instruction, planning and preparation are key to instructional delivery and ultimately to stimulating the user’s learning processes. An instructor, trainer, or teacher brings many important skills and talents to the learning environment. Many of these skills and talents can be incorporated into the electronic learning environment. This chapter describes how cognitive strategies can be incorporated into each step of the ADDIE process. The

chapter also contains many examples of design plans and templates that have worked in the real world of designing instruction for businesses and training organizations.

INTRODUCTION

Electronic instruction, that is, computer and Web-based instruction, differs from other forms of instruction in that it both represents the content to be learned *and* the teacher, trainer, or instructor. What you see is not only what you get, but it is all you get! Therefore incorporating good instructional strategies based on learning theory is vital for electronic instruction. After all, the instruction must stand on its own without any fallback to a “live” and experienced instructor.

As with most forms of instruction, planning and preparation are key to instructional delivery and ultimately to stimulating the user’s learning processes. An instructor, trainer, or teacher brings many important skills and talents to the learning environment. Many of these skills and talents can be incorporated into the electronic learning environment. Most expert instructors have a “bag of tricks” which they bring with them. This “bag of tricks” contains their experiences from many years of presenting many different kinds of content to many different kinds of learners. Some of these tricks of the trade are cognitive strategies. Cognitive strategies are an outgrowth of cognitive science that views learning as an internal process of storing and retrieving information. That internal process of storage and retrieval can, in turn, be influenced by external events (West, Farmer, & Wolff, 1991).

There already exists a mechanism which can be used to ensure that cognitive strategies are incorporated into electronic learning, and that mechanism is the instructional design process, commonly known in its simplest form as ADDIE, i.e., analyze, design, develop, implement, and evaluate. This chapter describes how cognitive strategies can be incorporated into each step of that process. The chapter also contains many examples of design plans and templates that have worked in the real world of designing instruction for businesses and training organizations.

ANALYSIS

In this first phase an instructional designer sets forth the types of learners for whom the instruction is being designed, the conditions under which it is

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