

## **Chapter III**

# **Strategies and Heuristics for Novice Instructional Designers as They Work with Faculty Content Experts in a University Setting**

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## **Abstract**

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*Universities increasingly expect faculty to integrate technology in their teaching and deliver instructional materials in innovative ways. The responsibility for creating technology-enhanced instruction typically falls on faculty who want to deliver instruction more effectively and efficiently and on students who are hired or assigned to assist them. In creating an instructional technology product, faculty members usually serve as content experts and students often serve as technology developers. In this chapter, we describe the development process*

*we have used in training and working with student developers and faculty-student project development teams. We outline critical issues instructional designers face when working with faculty content experts, and provide suggestions for becoming effective designers and overcoming the obstacles in this academic setting. We hope the strategies and heuristics discussed will assist novice instructional designers to become better prepared, avoid pitfalls, and find the design experience to be both challenging and rewarding.*

## Introduction

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Using technology to enhance teaching and learning has become an emphasis in higher education in the United States. Universities increasingly expect faculty to integrate technology in their teaching and deliver instructional materials in innovative ways. Relying on professional instructional designers to create these materials is often not possible due to budget constraints most universities face. The responsibility for creating technology-enhanced instruction, therefore, typically falls primarily on the faculty who want to deliver instruction more effectively and efficiently and on students who are hired or assigned to help them. In creating a technology product (e.g., a Web-based course, a Web site for a grant funded project, or a CD/DVD-based simulation), faculty members usually serve as content experts and students often serve as technology developers. While many students are often technology savvy, they may lack training in instructional design (ID) or have learned ID models only through coursework, without real-world experience in applying what they have learned.

Imagine these two scenarios: (1) A student with strong programming skills is assigned to assist a faculty member in developing an interactive simulation to aid learning of a difficult concept the faculty is teaching. The faculty member and student focus on the mechanics of the simulation, and the student starts building the simulation without considering the learning goals, audience, and appropriate instructional strategies to implement. (2) An instructional technology major is assigned to assist a faculty member in creating a Web site that will assist students to easily access course resources. After providing lecture notes, PowerPoint slides, and some videotapes, the faculty member becomes too busy to engage with the student on a regular basis and, being new to the technology development process, does not understand what specifically is expected of him/her as a participating client. The student is at a loss and, not knowing how to proceed, consults textbooks on ID but does not find the strategies and heuristics needed to complete the project.

Such situations are not uncommon when students are assigned to work on technology projects for faculty on university campuses. Faculty and students work together with loosely defined and flexible roles where faculty often rely on students to take on the main responsibility of project design and development. The role of the instructional designer can be shared by both faculty and students or taken on by either, depending on circumstances.

Instructional designers have their own community of practice. However, as Keppell (2004) argues, instructional designers almost always work outside their community of practice. The job of an instructional designer is to work with subject matter experts to translate “their needs and desires into the design specifications that will yield a successful product” (Cennamo & Kalk, 2005, p. 2), often for a topic foreign to them. This means instructional

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