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SAUL CARLINER

ADVANCED Web-BASED TRAINING STRATEGIES

Unlocking Instructionally Sound Online Learning

Pfeiffer
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About This Book

Why is this topic important?

Experts estimate that about 85 percent of Fortune 1,000 companies have a significant e-learning initiative underway. On a similar note, ASTD and other professional organizations predict that e-learning will account for as much as 30 percent of training in the near future. This massive adoption and move to e-learning is not without growing pains. The bulk of e-learning programs follow a predictable design. The challenge is to move beyond the novice strategies of linear page-turners, online workbooks, or drill-and-practice sessions. Training professionals need a portfolio of instructional strategies on which to draw to make e-learning more efficient and effective. This book is intended to help training professionals develop that portfolio.

What can you achieve with this book?

After reading this book, you should be able to do the following:

- Enhance the effectiveness of an existing e-learning program by applying one more of the ideas discussed in this book
- Plan new e-learning programs for asynchronous learning or the live virtual classroom that make use of blended and informal learning techniques, simulations, and m-learning
- Enhance the openings and closings of your e-learning programs, develop more effective and engaging interactivity, enhance the presentation of learning material, and design screens with more visual impact
- Explain your design choices by describing the logic underlying them

How is this book organized?

This book is broken into four parts, plus a conclusion. Part 1, Foundations, provides a framework for thinking about the design of e-learning, presenting the core philosophy underlying this book, a problem-based approach to design, and more in-depth background on its origins in learning philosophies and theories. Part 2, Portfolio of Design and Curriculum Strategies, explores design issues and issues that affect a series of related learning programs (a curriculum). Chapters in this part of the book address issues such as storytelling as a design technique, blended learning, and informal learning. Part 3, Portfolio of High-Level Design Strategies, explores some general approaches to designing learning programs and covers topics such as simulations, e-mentoring and e-coaching, m-learning, and live virtual classrooms. Part 4, Portfolio of Detailed Design Strategies, examines challenges in designing specific parts of e-learning programs and covers topics such as introductions and closings, exposition techniques, interaction, and visual communication techniques. The last part of this book, Closing, ties up some loose ends by suggesting unusual sources of design ideas for e-learning programs and how designers can keep up with trends that often seem to emerge at the speed of sound.

About Pfeiffer

Pfeiffer serves the professional development and hands-on resource needs of training and human resource practitioners and gives them products to do their jobs better. We deliver proven ideas and solutions from experts in HR development and HR management, and we offer effective and customizable tools to improve workplace performance. From novice to seasoned professional, Pfeiffer is the source you can trust to make yourself and your organization more successful.

Essential Knowledge Pfeiffer produces insightful, practical, and comprehensive materials on topics that matter the most to training and HR professionals. Our Essential Knowledge resources translate the expertise of seasoned professionals into practical, how-to guidance on critical workplace issues and problems. These resources are supported by case studies, worksheets, and job aids and are frequently supplemented with CD-ROMs, websites, and other means of making the content easier to read, understand, and use.

Essential Tools Pfeiffer's Essential Tools resources save time and expense by offering proven, ready-to-use materials—including exercises, activities, games, instruments, and assessments—for use during a training or team-learning event. These resources are frequently offered in looseleaf or CD-ROM format to facilitate copying and customization of the material.

Pfeiffer also recognizes the remarkable power of new technologies in expanding the reach and effectiveness of training. While e-hype has often created whizbang solutions in search of a problem, we are dedicated to bringing convenience and enhancements to proven training solutions. All our e-tools comply with rigorous functionality standards. The most appropriate technology wrapped around essential content yields the perfect solution for today's on-the-go trainers and human resource professionals.

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Essential resources for training and HR professionals

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Introduction

Getting the Most from This Resource

I know that 'page turners' don't produce much learning, but I don't know what else I can do with my e-learning program.

I know I have to grab learners' attention at the beginning of an e-learning course, but I'm stumped for compelling ways to do it.

I have to write a quiz and have no idea what to do.

Many course designers and developers feel that they're not realizing the full potential of e-learning, but don't know how to take their work to the next level. Some tell us that they're stuck in their office and don't have a chance to see some of the great e-learning out there. Other great e-learning is proprietary and not shown to the larger community of course designers and developers. Still others simply don't have time to hunt down good examples and learn what's great about them.

This book is for designers like you. This is a design book that's intended to help you develop your instincts. Part Ebert and Roper, part Martha Stewart (before the conviction), all knowledgeably developed, we act as a critical screen for you and provide you with the most current ideas and practical considerations for implementing them.

We pick up where the primers on instructional design for e-learning leave off. We assume that you are already experienced with instructional systems design, so we don't provide a cookbook-like approach and tell you exactly how to handle every situation. Besides, no one could possibly anticipate every situation that arises.

Rather, we assume that you are dealing with specific challenges that are unique to your organization and that no cookbook could anticipate. So we provide you with an approach to thinking that should stimulate your creative juices and build your confidence in addressing whatever challenges your work presents to you.

In the process, we try to build your portfolio (repertoire) of techniques for teaching online. As graphic designers keep their work in portfolios, and as financial managers manage portfolios of stocks, we instructional designers manage portfolios of instructional techniques, portfolios with examples of effective instruction (and a few

klunkers, too), and portfolios of our own work. Some educators call this a *repertoire* of techniques or "bag of tricks" (Joyce & Weil, 1986), adding that an instructional designer is only as good as the resources in this bag.

Through this book, we hope to build your personal portfolios of instructional techniques and great examples to call on when designing e-learning. We do that by providing you with a framework for organizing the key concepts of e-learning into one of these areas: foundations (ways of thinking about—or approaching—e-learning projects), design and curriculum (design issues that affect a series of related learning programs), high-level design issues (issues that affect an entire e-learning program), and detailed design issues (issues that affect an individual screen or a particular section of a course). We also provide you with two types of portfolios that you can consult as you approach your work: a portfolio of *techniques* you can use and a portfolio of *examples* that you can consult, which illustrate the effective implementation of each concept presented. The techniques and examples in the portfolios represent a broad spectrum of practice—including a broad spectrum of schedules, production budgets, industries, learners, and instructional goals.

Specifically, we explore foundational issues like the limitations of the hype regarding e-learning and e-learning design and different approaches to learning and their place in the design of e-learning programs. We also explore design and curriculum issues such as using storytelling as a design technique and the use of blended and informal learning. We explore high-level design issues like the use of m-learning, e-coaching and mentoring, and live virtual classrooms. In addition, we explore detailed design issues, such as effective ways of opening and closing courses and units; how to "expose" specific types of content, such as definitions, procedures, and examples; how to effectively use interactivity; the instructional use of simulations; and how to present content visually.

For each type of challenge addressed, we do the following:

- Define the challenge in its broadest context, which might differ from common assumptions (for example, we see storytelling as both a design and presentation technique, while most designers only think of it as a presentation technique).
- Provide a background on the challenge from a number of different perspectives: its role in instructional design, the benefits and limitations associated with the issue, and a portfolio of techniques for applying the technique in practice. These discussions are based in research and theory on learning, tempered by the realities of practice.

- Provide several examples taken from real practice, including one in-depth example and several shorter examples. Whenever possible, we provide the name of the organization that sponsored the e-course, but in some cases, organizations are sharing their proprietary courses so that we can share the ideas with you.
- Prepare you to continue your journey in learning about e-learning. At the end of each chapter, we do the following:
  - Give you an opportunity to apply the concepts presented through Reflection and Application exercises.
  - Point you to recommended readings by providing a manageable-sized list of references and explanation of why they're useful to you (not a dump of every site we ever saw).

At the end of the book, we provide appendices with some broader resources, including information about professional organizations of possible interest to you and a list of recommended "best sites" from leading experts in e-learning.

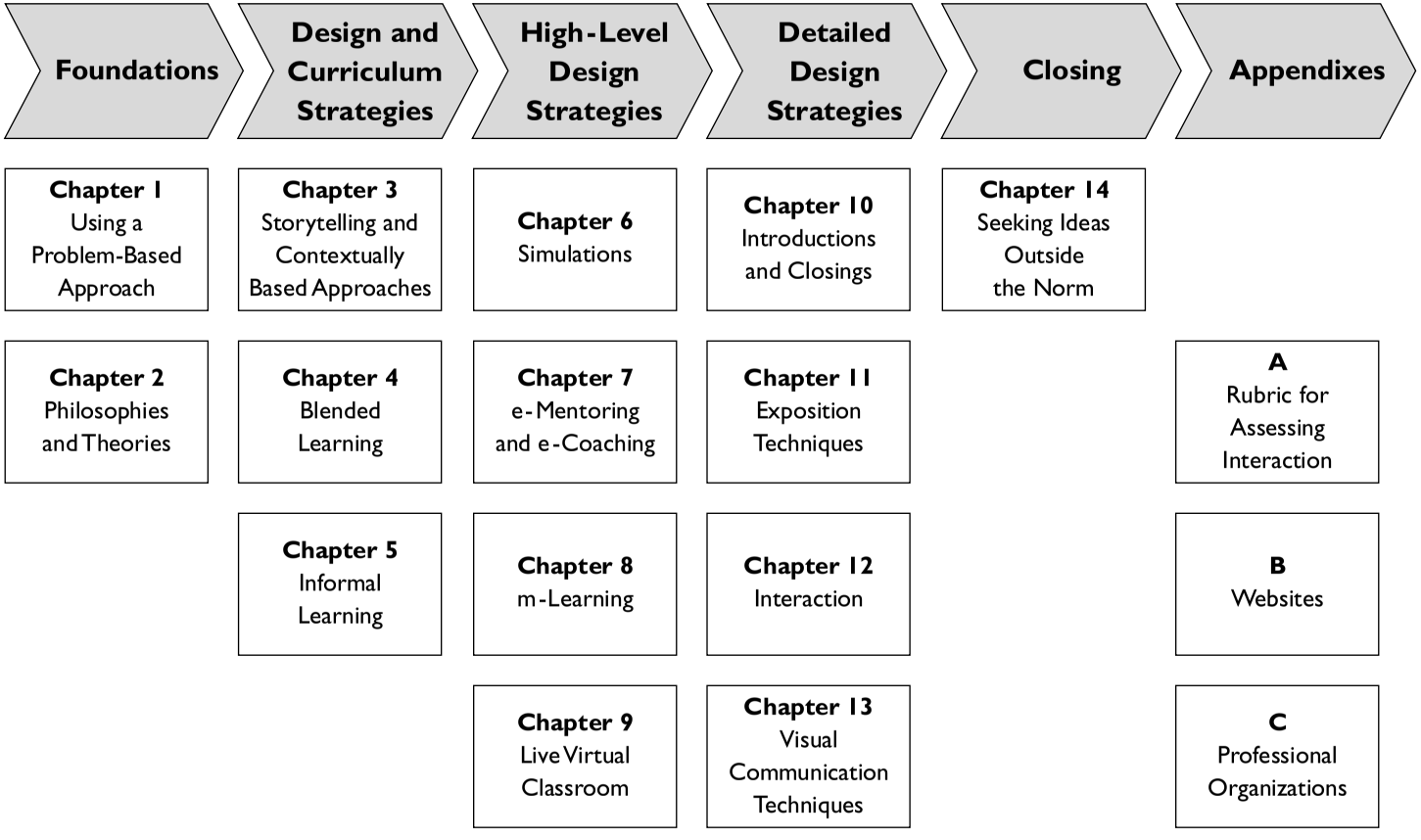
Who Should Read This Book

- Experienced e-learning designers and developers who have developed at least two e-courses and already are familiar with the instructional systems design process for e-learning. (If you have not mastered that content yet, we recommend that you read either Bill Horton's *Designing Web-Based Training: How To Teach Anyone Anything Anywhere Anytime* or one of our books, *Web-Based Training: Using Technology to Design Adult Learning Experiences* by Margaret Driscoll and *Designing e-Learning* by Saul Carliner.
- Experienced curriculum planners who are looking to expand the use of e-learning in their organizations, and who are also familiar with the instructional systems design process for e-learning.
- University students who are taking advanced courses in e-learning design, web design, multimedia development, instructional design, or technical communication.

How This Book Is Organized

This book has five parts, each exploring the design of e-learning programs from a different vantage point. Among the five parts are fourteen chapters, each of which builds your portfolio of e-learning design techniques in a specific area. Figure 0.1 illustrates the overall organization of the book. A more detailed explanation follows.

Figure 0.1. How This Book Is Organized



Part 1, Foundations, provides a framework of thinking about the design of e-learning. Specifically, the chapters in this section explore the following.

Chapter 1, Using a Problem-Based Approach to Designing e-Learning, explains our approach to design. We see each instructional design assignment as a unique problem to be solved. We explain that previous experience and research can inform choices for addressing the unique problem, but no cookbook-like approach can provide guaranteed success. As a result, we conclude that designers must take a problem-solving approach, which is characterized by critical thinking about, and creative solutions to, instructional design.

Chapter 2, Philosophies and Theories Guiding the Design of e-Learning, continues the discussion of critical thinking about the design of e-learning by providing a background on key theories and beliefs guiding instruction—including theories and beliefs that are contradictory, but guide learning anyway. Specifically, it explores the issues and controversies of why society educates people and how people learn. We discuss the incompleteness of this body of literature and how it ultimately requires that instructional designers clarify their own values and beliefs around these issues—because these values and beliefs are ultimately embedded in the instructional strategies and techniques we use in our work. In other words, using a game-like approach means much more than creating an interactive game; it represents a belief system about the way people learn. In clarifying your values and beliefs, you may find that game-based instruction is incompatible with your values and beliefs around learning.

Part 2, Portfolio of Design and Curriculum Strategies, explores design issues and issues that affect a series of related learning programs (a curriculum). The chapters in this section address new approaches to the design process and design strategies for linking individual e-learning programs together. Specifically, the chapters in this section explore the following.

Chapter 3, Storytelling and Contextually Based Approaches to Needs Assessment, Design, and Formative Evaluation, presents a powerful technique to use in these activities. Instructors traditionally incorporate stories into their classroom and e-courses, but few realize that storytelling is a powerful tool for getting information needed to effectively analyze an instructional problem and to state design requirements in a way that an entire design team can effectively relate to and address in design so that the resulting e-learning program is both relevant to, and usable by, the intended users. Note that this chapter does not discuss how to use storytelling as a teaching technique. Several other sources address this issue competently; we do not feel that we can add anything meaningful to that discussion.

Chapter 4, Blended Learning as a Curriculum Design Strategy, explores ways to mix e-learning, classroom learning, and other learning strategies into a unified whole. This chapter approaches blended learning as a curriculum design strategy, rather than a course design strategy. Using this approach, this chapter explores a general, performance-based curriculum design strategy that takes learners from no knowledge about a topic up through expertise and provides a framework for choosing the appropriate medium (such as e-learning or classroom learning) in which to present different parts of the curriculum.

Chapter 5, Informal Learning, explores how to develop performance among learners using materials other than tutorials and e-courses. This chapter introduces the concept of informal learning and explains how it complements and supplements formal courses. Then it provides a number of strategies for designing informal learning materials and identifies a number of different types of informal learning materials that you can develop.

Part 3, Portfolio of High-Level Design Strategies, explores general approaches to designing a specific learning program. The chapters in this section focus on technologies that can be used in e-learning as well as general approaches to designing individual learning programs. Specifically, the chapters in this section explore the following.

Chapter 6, Simulations, explores nine strategies for integrating simulations into e-learning programs. This chapter presents a variety of types of simulations, including attitudinal simulations, case studies, games, symbolic (invisible) simulations, physical simulations, role plays, procedural simulations, software simulation, and virtual reality. Through a portfolio of examples, this chapter makes you aware of the range of types of learning objectives that can be addressed by simulations, development issues (such as cost) that affect the design of simulations, and the levels of engagement possible in simulations.

Chapter 7, e-Mentoring and e-Coaching, differentiates between mentoring and coaching, explores how to provide personal attention to learners despite the distance that the computer creates in the learning process, and how to use the computer to extend these strategies to an e-learning environment.

Chapter 8, m-Learning, explores a nascent technology for teaching online. First, this chapter differentiates among the three uses of mobile learning: as a desktop replacement, as performance support, and for collaborative learning in context. Then it explores ancillary learning tools in m-learning that support classroom activities, such as student response units and record-keeping devices.