Book Review

Scenario-Based e-Learning

Scenario-Based e-Learning: Evidence-Based Guidelines for Online Workforce Learning. Ruth Colvin Clark (2013). Pfeiffer, San Francisco, 2013. 272 pp. $75.00. Soft Cover. ISBN 978-1-118-12725-4

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Abstract

Ruth Colvin Clark's Scenario-Based e-Learning: Evidence-Based Guidelines for Online Workforce Learning presents a well-developed method for deploying scenario-based learning models in online environments. A level of general familiarity with both instructional design practice and e-learning development is assumed throughout; some sequencing of concepts within the text may prove challenging for less-experienced readers. Nonetheless, Scenario-Based e-Learning is a significant contribution to the field. Experienced practitioners will find this book an excellent introduction that repeatedly rewards the careful reader.

Scenario-based learning has existed as an instructional model for over four decades—a fact partly obscured by the variety of names under which it has been implemented (problem-based learning, whole-task instruction, case-based learning and immersive learning, to mention only a few). Methods of implementation within the model are similarly varied (Clark, 2013, p. 140). Consequently, despite scenario-based learning's longevity, and "[although] there is a lot of enthusiasm…evidence of its effectiveness has been mixed" (Clark & Mayer, 2011, p. 351).

Ruth Colvin Clark's *Scenario-Based e-Learning: Evidence-Based Guidelines for Online Workforce Learning* tackles both ambiguous nomenclature and research outcomes to present a well-developed method for deploying scenario-based learning models in online environments. Clark is a veteran researcher and practitioner in the field of instructional design. Her understanding of the affordances and limits of e-learning is vast, which may be why this is not an easy text for the inexperienced reader.

Scenario-Based e-Learning is, somewhat counterintuitively, an introductory text aimed at an intermediate- to expert-level audience. Clark does not stint on the underlying rationale for adopting scenario-based e-learning—though she is careful also to delineate appropriate target learners and topics. Nonetheless, the core of the text focuses directly

on scenario design, evaluation and implementation; a level of general familiarity with both instructional design practice and e-learning development is assumed throughout. This is a text aimed at working professionals looking to adopt new instructional methods, rather than at researchers and theorists, though it contains much of value for that audience as well.

Chapter 1 of *Scenario-Based e-Learning* dives directly into the question of what scenario-based e-learning is and when it is most effectively deployed. Clark defines scenario-based e-learning as "...a preplanned guided inductive learning environment designed to accelerate expertise in which the learner assumes the role of an actor responding to a work-realistic assignment or challenge, which in turn responds to reflect the learner's choices" (p. 5).

It's important to note that Clark also takes care to define what scenario-based e-learning is not. It is not simulations or game-based learning environments (pp. 10-11). Nor is scenario-based e-learning passive observation of a scenario by the learner followed by assessment. Expertise is built by engaging the learner as a participant in the learning environment, no matter how it is presented (p. 11).

Chapter 2 provides an orientation to the training situations that call for scenario-based learning and the specific learning domains for which it is most likely to be effective. Clark also summarizes and compares the most common multimedia interface and navigation options for scenario-based e-learning. These concepts will be revisited repeatedly in chapters 3 through 9, which are the critical "how to" chapters.

In chapter 3, Clark defines the core components of effective scenario-based e-learning lessons: task deliverables (learning objectives), trigger events that initiate learning scenarios, scenario data, learner guidance and instruction, scenario feedback and learner reflection. Chapter 4 discusses scenario complexity and how to translate specific learning objectives into appropriate scenarios based on the e-learning environment. Chapter 5 elaborates on designing trigger events and presenting case data.

Chapters 6 and 7 are of particular interest for their discussion of learner guidance. There are a variety of options available for learner scaffolding; determining which options to incorporate under what circumstances can make important differences for learner success.

Similarly, in chapter 8, Clark describes the function of "instructional feedback" which provides explicit analysis and directives, versus intrinsic feedback, which is presented as consequences within the learning scenario itself. The chapter concludes with discussions on how to incorporate feedback and learner reflection effectively within specific learning domains.

Chapter 9 takes up the question of evaluation. Noting that "evaluations beyond student satisfaction are relatively scarce in workforce learning settings," Clark provides an overview of options for testing e-learning outcomes (p. 125). Supplementary content in

this chapter reviews basic testing requirements for reliability and validity, though detailed discussion of the latter topics is deferred to an appendix.

The final third of the book (Chapters 10-12) contains short summaries covering the state of research on scenario-based e-learning, techniques for eliciting tacit knowledge from subject-matter experts and methods for implementing scenario-based e-learning within a business or organization. The book front matter covers Clark's rationale for segregating these topics from the core design chapters of the text (pp. i-ii), but this sequencing decision may have less-experienced readers flipping back to revisit the design chapters in light of the new information.

In chapter 10, Clark presents results from several research studies and a meta-analysis of prior research that describe contexts in which scenario-based learning is more successful than "traditional" instructional models. She also points out methodological elements that appear empirically to improve scenario-based learning environments. Arguably, this chapter might as easily have appeared at the beginning of the book: the arguments it contains reinforce the design recommendations Clark makes in chapters 2 through 9.

Chapter 11 discusses methods for surfacing tacit knowledge held by subject-domain experts. Clark covers the topic in some detail; the (potential) information made available through these methods is very much germane to her prior discussions of presenting expert behaviors and coaching within e-learning scenarios. Clark concludes, however, that the time and resources consumed by these methods are often prohibitive, and that conventional approaches to soliciting expert knowledge are more efficient in all but the most obscure cases of tacit expertise (p. 172).

Clark closes the book, in chapter 12, by offering advice on a number of issues surrounding the implementation of scenario-based e-learning within organizations: presenting a business case, discussing a budget and developing a prototype lesson or lessons. Curiously, Clark touches briefly in this chapter on a subject that might have been addressed earlier in the text: templating a scenario to match a specific e-learning design model. Clark may view the templating process as more germane to discussing scenario-based e-learning within an overall project-management or business process framework. Less-experienced instructional designers, though, might benefit from encountering some of this information at an earlier point in the text.

A final sequencing issue arises with Clark's use of illustrations from various scenario-based e-learning courses as examples throughout the text. In many cases, Clark wishes to reference the same example figure from multiple chapters; the limitations of the textbook format require the reader to flip back and forth through the book to view the illustrations. Although Clark mitigates this problem by collecting example figures in an appendix at the end of the book, the process of finding and viewing an example often interrupts the flow of her presentation. Compounding (or perhaps paralleling) this issue, adjunct online versions of these illustrations are presented in browser-unfriendly graphic formats (.tif and .eps print data files instead of .gif or .jpg Web graphic files). This may be

due to an oversight by Clark's publisher and would be relatively simple to correct.

Sequencing criticisms aside, *Scenario-Based e-Learning* is a significant contribution to the field of instructional design for online environments. Less-experienced readers may find that working through some of Clark's design exercises—though these are exemplary in their clarity—requires flipping back and forth through the text and re-reading some passages. Experienced practitioners will find this book an excellent introduction that repeatedly rewards the careful reader.

References

Clark, R. C. (2013). *Scenario-Based e-Learning: Evidence-Based Guidelines for Online Workforce Learning*. San Francisco: Pfeiffer.

Clark, R. C. & Mayer, R. E. (2011). *E-Learning and the Science of Instruction*. 3rd ed. San Francisco: Pfeiffer.