

## Chapter 2.33

# Qualitative Standards for E-Learning: The Demand-Driven Learning Model

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### ABSTRACT

This study compliments the theoretical work that led to the development of a new e-learning model, termed the demand-driven learning model (DDLm), and describes the development of a survey that can be used to determine the quality of e-learning programs. Scores from the survey are intended to provide a useful indication of the extent to which e-learning programs provide evidence of quality defined by the DDLm. In this way, the DDLm represents a proposed standard for the quality of online learning. The authors also provide a description of the development and pilot study of the survey measure, and propose this survey as a means of assessing the quality of e-learning programs against this standard.

### INTRODUCTION

The tension between improving employee skills and meeting the daily demands in the organization has led employers in many industries to endorse, fund, and even design and deliver alternative education and training programs. Internet, online or e-learning, is becoming a popular way to address this issue whereby staff can pursue higher credentials without interrupting their service to employers. However, a close examination of new e-learning programs has indicated a critical gap between the use of technology and sound pedagogical models (Khan, 1997; Salmon, 2000; Willis, 2000). Several researchers have written about the need for quality standards to ensure the

integrity of e-learning programs (Benson, 2003; Carstens & Worsfold, 2000; DeBard & Guidera, 2000; Salmon & Speck, 2000).

This study complements the theoretical work that led to the development of a new e-learning model, termed the Demand-Driven Learning Model (DDLm), and describes the development of a survey that can be used to determine the quality of e-learning programs. Scores from the survey are intended to provide a useful indication of the extent to which e-learning programs provide evidence of quality defined by the DDLm. In this way, the DDLm represents a proposed standard for the quality of online learning. The authors also provide a conceptually sound tool (survey measure) that may be used to assess the quality of any application of e-learning against this standard. Specifically, research represented here describes the pilot study of the DDLm and survey tool used to assess three e-learning programs, and poses three research questions:

1. Is there evidence of score validity and reliability?
2. Is the expected relationship between constructs in the DDLm present in pilot study response data?
3. How do the online programs in the pilot study compare based on the DDLm?

The development process that resulted in the DDLm required collaboration between academics and experts from commercial, private, and public industries. An early draft describing the DDLm was presented to a panel of industry experts. Present at this meeting were representatives from highly respected national and international commercial organizations influential in online technology and education, including Nortel Networks, Alcatel, Lucent Technologies, Cisco Systems, Arthur D. Little Business School, Learnsoft Corporation, and KGMP Consulting Services. These representatives reacted with enthusiasm and interest in the DDLm, and also

provided recommendations for future refinement and utility. Specifically, the authors identified a need to reflect in the DDLm practical and logistic features required for success in e-learning. These elements were identified during the process of planning the pilot study, and continually defining and refining the DDLm survey through ongoing consultations with industry representatives over a two-year period.

After a brief introduction to the DDLm and the e-learning context, a short description of the initial development of the online survey is provided, followed by the results from the authors' pilot study with three e-learning programs. These results furnish some initial evidence for the validity of the DDLm and the utility of the DDLm online survey used to examine program quality. The model and survey are intended to support a confident evaluation of a wide range of e-learning programs.

## **DDLm**

The DDLm is grounded within a constructivist framework and defined by five main components: the quality standard of superior structure; three consumer demands of content, delivery, and service; and learner outcomes. Further, it is framed within frequent opportunities for ongoing adaptation, improvement, and evaluation. Superior structure can be viewed as a standard of high quality attained only by e-learning programs that meet specific requirements. The elements of superior structure are required for excellence in content, delivery, and service. As a result, learner outcomes will be optimized (MacDonald, Stodel, Farres, Breithaupt, & Gabriel, 2001). The DDLm has the following distinguishing features that make it an appropriate quality standard for adult e-learning. The DDLm:

- emerged out of a concern for the lack of standards and validated models for e-learning, specifically e-learning for adults;

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