Chapter I
E–Learning Classifications:
Differences and Similarities

Solomon Negash
Kennesaw State University, USA

Marlene V. Wilcox
Bradley University, USA

ABSTRACT

This chapter identifies six e-learning classifications to understand the different forms of e-learning and demonstrates the differences and similarities of the classifications with classroom examples, including a pilot empirical study from the authors' experience. It argues that understanding the different e-learning classifications is a prerequisite to understanding the effectiveness of specific e-learning formats. How does the reader distinguish e-learning success and/or failure if the format used is not understood? For example, a learning format with a Web site link to download lecture notes is different from one that uses interactive communication between learner and instructor and the latter is different from one that uses "live" audio and video. In order to understand effectiveness, or lack thereof of an e-learning environment, more precise terminology which describes the format of delivery is needed. To address this issue, this chapter provides the following six e-learning classifications: e-learning with physical presence and without e-communication (face-to-face), e-learning without presence and without e-communication (self-learning), e-learning without presence and with e-communication (asynchronous), e-learning with virtual presence and with e-communication (synchronous), e-learning with occasional presence and with e-communication (blended/hybrid-asynchronous), and e-learning with presence and with e-communication (blended/hybrid-synchronous). E-learning classifications can aid researchers in identifying learning effectiveness for specific formats and how it alters the student learning experience.

INTRODUCTION

Technology is transforming the delivery of education in unthinkable ways (DeNeui & Dodge, 2006). The impact and influence of technology can be seen rippling through academe and industry as more and more institutions of higher education and corporations offer, or plan to offer, Web-based courses (Alavi, Marakasand, & Yoo, 2002; Dagada & Jakovljevic, 2004).

There is a call for studies that enable researchers to gain a deeper understanding into the effectiveness of the use of technologies for e-learning (Alavi & Leidner, 2001; Alavi et al., 2002). Such studies need to be qualified by differentiating among e-learning formats.

Brown and Liedholm (2002) compared the outcomes of three different formats for a course in the principles of microeconomics (face-to-face, hybrid, and virtual) and found that the students in the virtual course did not perform as well as the students in the face-to-face classroom settings and that differences between students in the face-to-face and hybrid sections vs. those in the virtual section were shown to increase with the complexity of the subject matter. Piccoli, Ahmadand, and Ives (2001) found that the level of student satisfaction in e-learning environments for difficult (or unfamiliar) topics like Microsoft Access dropped when compared to familiar topics like Microsoft Word and Microsoft Excel. Brown and Liedholm (2002) found that students in virtual classes performed worse on exams than those in face-to-face classes where the exam questions required more complex applications of basic concepts. Brown and Liedholm (2002) conclude that ultimately there is some form of penalty for selecting a course that is completely online. These studies, while important, do not distinguish among the different e-learning formats used to conduct the courses; they are based on the premise that the e-learning formats are the same.

Studies on success and failure of e-learning presuppose that all online learning deliveries are the same, but there are differences. Those who cite the failure of e-learning formats often cite lack of support for students, lack of instructor availability, lack of content richness, and lack of performance assessment. Of course, it all depends on the course content being offered; but it also depends on the course delivery format. For example, an online class where the learner is provided only a Web site link to download the lecture notes is different from one where the learner has interactive communication with the instructor. The latter is also different from an e-learning class that provides the learner with "live" audio and video vs. one that does not.

In order to understand the effectiveness, or lack thereof, of an e-learning environment, more precise terminology which describes the format of delivery is needed, since all online instruction delivery formats are not equal; different content require different delivery formats. Technology advances have provided many tools for e-learning but without a clear understanding of the format of delivery it is difficult to assess the overall effectiveness of the environment. The question arises as to what classification can be used to understand the different e-learning formats. To help address this issue, this chapter provides an e-learning classification and demonstrates with a classroom example from the authors' experience.

There are seven sections in this chapter. First, we identify six classifications and describe them briefly. We then describe learning management systems (LMS) and give some examples. In the third section, we discuss e-learning environments and six dimensions that distinguish e-learning environments from face-to-face classrooms. The fourth section provides an example of each classification, followed by a pilot empirical study and a framework for e-learning environment effectiveness in section five. Sections six and seven provide a discussion and the conclusion.

21 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/learning-classifications-differences-similarities/19397

Related Content

Management of Lecture Time: Using the Web to Manipulate Extrinsic Cognitive Load
Michael A. Chiltonand Anil Gurung (2008). *International Journal of Web-Based Learning and Teaching Technologies (pp. 35-47).*
www.irma-international.org/article/management-lecture-time/3007

Transformative Social and Emotional Learning: Examining Learning Management Systems Through the Pairing of Digital Learning Environments
Joseph P. Fiorentini, Michael P. McCreery, Le Quanda L. Cole, Sam A. Leif, Malaya M. Monk, Jessica R. Bagnerisand Danielle L. Head (2021). *eLearning Engagement in a Transformative Social Learning Environment (pp. 180-202).*
www.irma-international.org/chapter/transformative-social-and-emotional-learning/280623

Integration of Cloud Computing, Big Data, Artificial Intelligence, and Internet of Things: Review and Open Research Issues
Drissi Saadia (2021). *International Journal of Web-Based Learning and Teaching Technologies (pp. 10-17).*
www.irma-international.org/article/integration-of-cloud-computing-big-data-artificial-intelligence-and-internet-of-things/266412

Integrating Technology in the Classroom: Factors that Account for Teachers' Regressive Developmental Trajectories
Chee-Kit Looi, Wenli Chenand Fang-Hao Chen (2014). *International Journal of Web-Based Learning and Teaching Technologies (pp. 1-17).*
www.irma-international.org/article/integrating-technology-in-the-classroom/118120

Student Engagement and Educational Benefits of Web GIS-Based Projects
Thomas A. Sofiasand Christos J. Pierrakeas (2023). *International Journal of Web-Based Learning and Teaching Technologies (pp. 1-16).*
www.irma-international.org/article/student-engagement-and-educational-benefits-of-web-gis-based-projects/317089