Chapter 58

Teaching and Learning Online:
An Examination of Effective Techniques, Practices, and Processes

Angelia Yount
Ball State University, USA

Kwesi Tandoh
Ball State University, USA

ABSTRACT

This chapter explores online learning and the pedagogical techniques needed to create an effective learning environment. In addition, it emphasizes the advances in contemporary online learning tracing its difficult beginning and the progress made due to advances made in technology especially the World Wide Web and the Internet. The chapter also discusses the importance of immediacy in online learning, and its ability to allow students to learn from anywhere and at any time. Student problems include lack of access to the technology, readiness to work online, and the erroneous impression that they know the technology more than the instructor. Interaction includes the effective application of scenarios of student and content, interaction between instructor and students, and the interaction between students which help promote social presence. We strongly believe the application of the afore-mentioned strategies will ensure successful development and implementations of an effective online course.

INTRODUCTION

The Internet and the World Wide Web has radically transformed the traditional practice of teaching and learning at a distance. Teaching online offers alternative instructional advantages for campus-based and locational-based non-traditional students the much needed flexibility and convenience. Pedagogically, online learning allows students more control over the pace of their learning made possible by the asynchronous (learning environment where interaction between instructor and student occur at different times) nature of online learning (Meyen, Lian, & Tangen, 1997). This paper is written under the main principles of adult learning theory (Knowles, 1975), as well as constructivism, cognitivism, and behavioral

learning theories. We believe that the principles espoused in these theories are in line with the demands of online learning, which encourages the utilization of pedagogical procedures that are self-paced and student-centered. The literature shows that the continued growth in access to the Internet and the World Wide Web has spurred an increase in Internet-based learning (Picciano, 2002). According to Allen & Seaman (2013) there were between 6.7 million and 15 million (National Center for Education Statistics, 2012) individuals enrolled in online courses. The increase in popularity of online learning has motivated a critical mass of institutions to increase opportunities for students including non-traditional students to enroll in these courses (Shaw, Chametzky, Burrus, & Walters, 2013).

This chapter will analyze instructional best practices for online teaching and learning with the view to proposing helpful approaches to guide educators and courses designers. In the process, the authors will discuss the theoretical underpinnings and strategies needed to design effective online courses. In addition, this chapter will highlight a broader definition of pedagogy as encompassing andragogy as used in contemporary teaching and learning environment (Waterhouse, 2005). We will also discuss different strategies as illustrated in the literature that can be utilized in creating effective and engaging online courses. In order to do this, we will trace the history of distance learning and the evolving changes in definitions as indicated in the literature. We will also analyze the various strategies that contribute to make online teaching and learning a viable form of instruction in academia in the 21st Century.

Online learning has entrenched itself in recent years as part of our educational environment, specifically in higher education and business training centers (Anderson, 2008).

However, unlike most development trends, the increased interest in online learning has not been limited to developed countries only, colleges in developing countries have equally expressed interest in mediated learning for many reasons, including expanding access and flexibility to students' learning and training (Anderson, 2008). A closer look at the history of online or distance learning will help clarify why this method of learning continues to draw positive attention in academia.

HISTORY OF DISTANCE LEARNING

According to Anderson (2008), distance education is not an old discipline by academic standards though its theory and practice has evolved through five generations since its inception (Taylor, 2001). From its beginning, distance learning was viewed mostly as an individual pursuit interspersed with infrequent communication between learner and teacher (Anderson, 2008). However, the last part of the twentieth century witnessed a great transition and the emergence of three other generations of distance teaching and learning (Anderson, 2008). Of these three generations of distance learning, one was supported by the mass media of radio and television, next was the use of synchronous tools and audio teleconferencing, which was followed by computer conferencing (Anderson, 2008).

The rapid explosion of computer technology and the Internet in beginning of the 21st century has spurred emergence of a fifth generation of distance learning based on the autonomous agents and database assisted learning, which Anderson (2004) referred to in the literature as the educational "Semantic Web" and "Web 2.0." Though these generations have followed their predecessor more quickly than the previous ones, none of these has completely displaced the previous generations. This explains why we are currently dealing with different yet viable forms of distance education that use all five generations in combination. As a result, one can safely say that distance education can be described as complex, diverse, and rapidly evolving (Anderson, 2008).

Related Content

A Platform for Actively Supporting e-Learning in Mobile Networks
Basit A. Khanand Mihhail Matskin (2010). *International Journal of Mobile and Blended Learning (pp. 55-79).*
www.irma-international.org/article/platform-actively-supporting-learning-mobile/40977

Model for an Interaction Assessment Strategy in Hybrid Learning Including Web 2.0 Resources
Raquel Hijón-Neira, Angel Velázquez-Iturbideand Jonay Rodríguez-Martín (2010). *Handbook of Research on Hybrid Learning Models: Advanced Tools, Technologies, and Applications (pp. 450-465).*
www.irma-international.org/chapter/model-interaction-assessment-strategy-hybrid/40392

Use of Smartphones for Self-Regulated Foreign Language Learning Activities
Violeta Jurkovi (2020). *Examining the Roles of Teachers and Students in Mastering New Technologies (pp. 204-223).*
www.irma-international.org/chapter/use-of-smartphones-for-self-regulated-foreign-language-learning-activities/251316

Net Geners' Multi-Modal and Multi-Tasking Performance in Complex Problem Solving
Robert Z. Zheng (2012). *Teaching, Learning and the Net Generation: Concepts and Tools for Reaching Digital Learners (pp. 107-128).*
www.irma-international.org/chapter/net-geners-multi-modal-multi/60699

Conceptualising mLearning Literacy
Wan Ng (2013). *International Journal of Mobile and Blended Learning (pp. 1-20).*
www.irma-international.org/article/conceptualising-mlearning-literacy/76882