Category: IT Education

Distance Learning Overview

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INTRODUCTION

The knowledge explosion, the increased complexity of human life, and the ubiquitous nature of technology coupled with the globalization of the marketplace herald the need to embrace the most effective methods and formats of teaching and learning. Currently providing powerful educational opportunities, the science and technology of distance learning continues to multiply at unprecedented rates. Where just a short time ago traveling from village to village verbally disseminating knowledge was the only process of training those at a distance, today many eagerly embrace the rapidly expanding synchronous and asynchronous delivery systems of the 21st century. So what exactly is distance learning?

In very simplistic terms, distance learning is just that: learning that occurs at a distance (Rumble & Keegan, 1982; Shale, 1990; Shale & Garrison, 1990) or that which is characterized by a separation in proximity and/or time (Holmberg, 1974, 1977, 1981; Kaye, 1981, 1982, 1988; D. J. Keegan, 1980; McIsaac & Gunawardena, 1996; M. Moore, 1983; M. G. Moore, 1973, 1980, 1989a, 1989b, 1990; Ohler, 1991; Sewart, 1981; Wedemeyer, 1971). In his 1986 theory of transactional distance, Michael Moore (Moore & Kearsley, 1996) defined distance not only in terms of place and time, but also in terms of structure and dialogue between the learner and the instructor. In this theory, distance becomes more pedagogical than geographical. As structure increases, so does distance. As dialogue increases, distance declines, thus accentuating the need for interaction in the distance learning environment. Saba (1998) furthered this concept, concluding,

the dynamic and systemic study of distance education has made "distance" irrelevant, and has made mediated communication and construction of knowledge the relevant issue…. So the proper question is not whether distance education is comparable to a hypothetical "traditional," or face-to-face instruction, but if there is enough interaction between the learner and the instructor for the learner to find meaning and develop new knowledge. (p. 5)

To facilitate greater interaction in the geographically and/or organizationally dispersed distance environment, today, individuals most often use some form of technology to overcome the barrier of separation, affording institutional and learner opportunity to transcend intra- and inter-organizational boundaries, time, and even culture. By definition, the paradigm of distance learning revolutionizes the traditional environment (Martz & Reddy, 2005); however, even with this change, learning, which involves some manner of interaction with content, instructor, and/or peers, remains at the core of the educational process.

Although imperative in both environments, these three types of interaction seem to be at the hub of the ongoing traditional-vs.-distance argument. Traditionalists often fear that with anything other than face-to-face instruction, interaction somehow will decrease, thus making learning less effective, when in reality, numerous studies have revealed no significant difference in the learning outcomes between traditional and distance courses (Russell, 1999). In fact, distance courses have been found to "match conventional on-campus, face-to-face courses in both rigor and quality of outcomes" (Pittman, 1997, p. 42). Despite these findings, critics still abound.

Two distinguishing characteristics of the nontraditional environment—individualized learning and flexibility—often arouse suspicion and caution among traditionalists (Grooms, 2000). Many are convinced that with any form of study outside the confines of the typical brick and mortar, "every vestige of intellectual rigor [will] disappear into oblivion....[These skeptics interpret] individualized learning as individualized isolation, especially from faculty, and they look on flexibility as no more than a synonym for escape from regulation and responsibility" (Gould, 1972, p. 9). Inherently, they fear loss of interaction.

In contrast, with their introduction of equivalency theory, Simonson, Schlosser, and Hanson (1999) accentuated the concept of equivalency as "central to the widespread acceptance of distance education" (p. 72), thus supporting Keegan's (1989) call for parity in quality, quantity, and status. Furthermore, recognizing the need to bring integrity and prestige to the field, Shale and Garrison (1990) suggested building a framework based not on isolation but upon interdependence, which would imply that distance learning would merely become an alternative method for delivering traditional content. This begs the question of how distance learning has evolved.

BACKGROUND

As previously mentioned, distance learning has been with us in one form or another virtually since the creation of time.

For years, itinerant teachers traveled from village to village verbally disseminating information to those hungry for knowledge; however, the invention of Guttenberg's printing press in 1440 made possible serious distribution of learning to larger numbers of people.

Capitalizing on this broader use of print media, correspondence study became a popular form of distance education, the first record of which was in 1728 when Caleb Philipps advertised the introduction of shorthand (Battenberg as cited in Baath, 1980; & Holmberg, 1986). Often conjuring thoughts of isolation and autonomy, this record of instruction mirrored those images. In fact, in this account, there was no mention of interaction of any type other than what was inherent with the content.

Over a hundred years later in his 1833 Swedish advertisement, although not directly stated, Meuller's offer to study composition seems to be the first to imply some form of exchange between the student and teacher. More definitively, in 1840, the most acknowledged root of distance learning explicitly employing learner-instructor interaction began in the United Kingdom. Using passages from the Bible, Isaac Pitman taught shorthand (Baath, 1980; Holmberg, 1974; Kaye, 1988; Rumble, 1986), but this time, once learners transcribed these passages, they were returned for correspondence with the teacher via the penny post, thus some call it postal teaching (Dewal, 1988).

As evidenced in these early days of pure correspondence education, any offered guidance transpired through some form of dispatched communication such as the mail (Wedemeyer, 1971), and student contact, even with the instructor, was not necessarily encouraged. This is clearly seen in Keegan's (1980) classic article "On Defining Distance Education," where he documented that in its strictest sense, pure correspondence study advocates specified that "students enrol [sic] with them because they 'want to be left alone'" (p. 31).

As distance learning evolved, learner-instructor interaction became increasingly important, thus catapulting the first of two paradigm shifts. While many recognized the significantly positive impact of the distance learning interactive component (Cookson, 1989; Grooms, 2000, 2003; Robinson, 1981), others such as Daniel and Marquis (1979) accentuated the importance of getting the right independence-interaction mixture. Further stressing this need for learner-instructor interaction, Holmberg (1982) directly confronted the pure correspondence model when he concluded that "any postgraduate distance study must have a truly communicative character if more is meant than merely providing reading lists and odd comments on students' work" (p. 259).

Print remained the primary mode of distance learning until the 1920s and '30s when the introduction of radio broadcasts soon followed by television and satellite delivery systems initiated the labor pains for the birth of the current online technological revolution. Prior to the advent of the World Wide Web (WWW) in the early 1990s, interaction continued to transpire primarily between the learner and content, with occasional interaction between the learner and the instructor through such means as telephone and videoconferencing. The second paradigm shift was on the horizon.

THE CURRENT STATE OF AFFAIRS

To be embraced, any new mode or method of education must do more than merely emulate the status quo. The virtual environment of the 21st century claims to do just that. While offering flexibility from traditional proximity and time constraints (Barnes & Greller, 1994; Harasim, 1990; Hiltz & Johnson, 1990; Kaye, 1989; M. Moore, 1983), computer-mediated communication (CMC) (Harasim, 1993; Kaye, 1989; McIsaac & Gunawardena, 1996) serves as an excellent participation equalizer. Coupled with unprecedented technological advances (Graham, Allen, & Ure, 2005; Osguthorpe & Graham, 2003), the line between traditional face-to-face learning and that which occurs at a distance becomes increasingly blurred.

While multiple studies have indicated there is no significant difference between distance and traditional learning effectiveness, the geographical dispersion of people, shifting market conditions, and rapid technological changes continue to compel transformation in the way we do business both in the marketplace and in the halls of academe. Promising to deliver increased access, quality, and efficiency of learning in an ever-growing competitive market (Benoit, Benoit, Milyo, & Hansen, 2006), the technology of higher education alters teaching and learning (Kapitzke, 2000) and thus instructor and student roles (Stadtlander, 1998).

Learning is no longer dispatched through print or even audio or video, but rather it is now mediated through synchronous (interactive/real time) or asynchronous (delayed interaction) means. Regardless of technology's sophistication, the most critical consideration must always be to align the task, the delivery method, and the delivery format.

Distance Learning Delivery Methods

Almost 150 years following the advent of postal teaching and the first record of any form of learner-instructor interaction, Linda Harasim (1989), a pioneer in the online classroom, clearly differentiated three delivery methods that she believed distinguished traditional, distance, and online education: *one-to-many*, as in the traditional lecture method when one instructor addresses many students; *one-to-one*, as in the tutorial method; and *many-to-many*, a collaborative process with students learning from each other, with or without an instructor. In the first method, learners are mere passive recipients of knowledge and information, whereas in the latter two, they are actively involved in the learning