

DISTANCE EDUCATION

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This paper was completed and submitted in partial fulfillment of the Master Teacher Program, a 2-year faculty professional development program conducted by the Center for Teaching Excellence, United States Military Academy, West Point, NY, 2010

Distance education is a term that is widely used but has different connotations based on the context and the institution where it is used. Sherry (1996) outlines the hallmarks of distance education as: the separation of teacher and student, volitional control of learning by the student, and noncontiguous communication mediated by some form of media. Distance education can be offered by a “virtual” university with no physical campus or by a more traditional brick and mortar institution attempting to extend the accessibility of their courses. The inclusion of technology to replace face to face communication changes the interaction, but can be just as meaningful with proper course design and implementation of appropriate technologies.

The concept of distance education is not a new one, but has received a great deal of attention as society has moved into the “information age”. Correspondence courses provided the earliest form of distance education. Student and teacher corresponded via mail to pass information and to assess performance. The process was slow and tedious, but provided the ability to teach over great distances. In the 1960’s, Instructional TV (ITV) helped to speed up the process, at least in one direction. A lesson could be recorded or transmitted live to students in a matter of seconds. The birth of the Internet allowed for the interaction between students and teachers to be further simplified. Complex production facilities were no longer required to prepare a lesson and students could “correspond” with their teacher at the speed of light. The use of chat rooms, white boards, and web cams allowed the teacher and student to move from asynchronous learning to synchronous learning. The growth of the internet allowed students and teachers to access this communication media from virtually any location at any time: from the classroom to a coffee shop using a smart phone.

The explosion of the internet made it possible for distance education to gain ground for percentages of courses taught, and institutions to provide entire degrees via distance education. Virtual college and high school campuses allow students to complete accredited degrees without stepping foot into a physical classroom. The rapid increase of distance education courses has forced a review of what constitutes quality instruction and how to best tailor it to the current society.

As the educational landscape has evolved with the emerging technology, so have the motivation, skills, and expectations of today’s students. Email, text messages, and Facebook are the norm for college students. Social networking has significantly reduced the time required to pass information and made the world a much smaller place. As student’s expectations, experiences, and perceptions evolve, the instructional strategies must keep pace.

Current Use

The role of distance education continues to expand to meet a variety of needs. MacKeogh (2009) groups the rationale supporting distance learning into seven broad categories: enhancing reputation, developing

information skills, widening access, supporting disabled students, improving quality of teaching, increasing flexibility, and improving cost effectiveness. These categories can be addressed simultaneously, but often only a select number are aggressively pursued by the institution. Latchem (2007) reports that over 70 percent of higher education institutions in Japan had adopted some form of distance learning, but less than 10 percent made courses available to off-campus students. In contrast, the United Kingdom's Open University and the University of Phoenix have no physical campus and offer degrees exclusively through distance education.

As institutions incorporate distance learning into existing courses, there is a great demand for systems to support the courses. Software such as Blackboard provides purpose build solutions to organize, manage and mediate the flow of information necessary for distance learning. The suite allows instructors to chat, administer tests, present lessons, and gather homework, which incorporates virtually every activity that occurs in the traditional classroom. These tools allow the instructor to replicate the traditional classroom based on Keegan's Theory of Distance Education. The rise of social media has revolutionized the manner that the college age student communicates. Facebook, Twitter, and RSS Feeds allow a student to "subscribe" to a topic of their interest and the information is "pushed" to them. They do not have to actively seek the information; they are continually bombarded with it. Beladarin (2006) outlines the use of RSS feeds for instructors to push information to the student. The greatest potential for distance education lies in tools that allow for collaboration. Wikis can successfully promote collaboration among instructors, staff, and students. The School of Architecture at Auburn University supports a wiki project as part of their program. Just as Wikipedia provides a wealth of knowledge and allows collaboration on a global scale, it must be continually policed to ensure the content is not corrupted.

Pedagogy

The rise of distance education has been claimed to be a driving force behind the move toward constructivist pedagogies. Puzifferro (2009) outlines the two main tenets of constructivism as: learning is an active process of creating knowledge and instruction is the process of supporting and facilitating knowledge construction. The Internet environment lends itself to the use of discussions of current events, case studies, and collaboration on projects for students to build their body of knowledge. These tenets can and have been used successfully in traditional classrooms, but the Internet has simplified and speed up the process for both the teacher and student.

A new theory has emerged with the rise of the "information superhighway". Siemens (2004) proposed the theory of connectivism that is at odds with the traditional manner of building a course from a standardized shell. The key tenets of connectivism are: learning rests in diversity of opinions, learning is a process of connecting information sources, capacity to know more is more critical than what is known, learning may reside in non-human appliances, maintaining connection is needed to facilitate continual learning, ability to see connections is a core skill, currency (accurate, up to date knowledge) is the intent of all learning activities and decision making is a learning process. Some tenets may seem farfetched, even science fiction, but have merits. Just as the internet has revolutionized the way we gather information socially, so will it revolution the way we learn.

Research

Over the past twenty years, a great deal of research has been conducted to help gauge the success of distance education and to maximize its potential. Phipps (2000) surveyed six different institutions to determine benchmarks considered to be essential to ensuring excellence in distance education. The result of the study was 24 separate benchmarks. These benchmarks are grouped into seven separate categories: institutional support, course development, teaching/learning, course structure, student support, faculty support, and evaluation and assessment.

Saba (2000) identifies a variety of comparative studies from 1962 up to 1990 that attempted to determine if there was a difference between traditional and distance learning. The studies all showed “no statistically significant difference”. Saba also presents studies conducted over the past 15 years that were based on theoretical foundations related to distance education. The common theme identified for these later studies was interaction. The fact that the teacher and student are physically separated plays less of a role than the quality of their interaction.

Swan (2001) focuses not only on the interaction between student and teacher, but the interaction between students and interaction with the content. Using Rourke’s (2002) Community of inquiry model, Swan looks at all three types of interaction and determined that for online courses, the interaction among students is one of the most influential features of online courses.

Best Practices

A plethora of suggestions on how to successfully implement distance education are available. Chickering (1991) identified Seven Principles of Good Practice for undergraduate education. Puzziferro (2009) adapted them to the context of supporting online faculty. The Seven Principles are:

1. Encourage Contact: Frequent contact and communication is the most impact factor in faculty motivation and involvement.
2. Reciprocity and Cooperation: Good learning, like good work, is collaborative and social, not competitive and isolated.
3. Encourage Active Learning: Faculty must talk about what they are learning, write about it, relate it to past experience and apply it to their daily lives.
4. Give Prompt Feedback: Knowing what you know and do not know focuses learning.
5. Emphasize Time on Task: Defining time expectations for students, faculty, administrator, and other staff can establish the basis of high performance by all.
6. Communicate High Expectations: Expect more and you’ll get more.
7. Respect Diverse Talents and Ways of Learning: There are many roads to learning.

Sherry (1996) also identifies an issue that is unique to distance education. In traditional education, the teacher is responsible for preparing all materials for their class and is autonomous in their classroom. In contrast, distance education teachers are not in direct contact with their students and their communication is mediated by some type of media. The technology used to mediate that communication requires a variety of support staff that support or detract from that communication. The support staff includes technicians, aides, service providers, editors, designers, programmers, etc. A key role to support distance education is a facilitator to plan and coordinate the efforts of the staff. Both roles must be well defined and assigned to a person or persons so that the communication between the teacher and student is seamless.

Conclusion

Distance education provides an institution/teacher the capability to provide access to courses without limit to time or distance. It also provides students the ability to progress at their own pace and in a manner that suits their learning styles. The process of learning can be successfully achieved both inside and outside the traditional classroom; however, in both instances, quality learning does not occur by mistake. In both venues, quality interaction for the student will ensure maximum potential. The media used by the teacher should span the gap of time and space to ensure that the course is able to build a community of inquiry for the student to work within. The structure of the course must be developed in concert with the media selected to support the community of inquiry. Distance education is not new, but the fidelity of the instruction and control afforded the student is revolutionary.

Annotated Readings

Beldarrain, Y. (2006) Distance Education Trends: Integrating new technologies to foster student interaction and collaboration. *Distance Education*, Vol. 27, No. 2, August 2006, pg 139-153.

This article looks at the role of emerging technologies to provide interaction between student and instructor over the two decades. In addition to discussing particular examples (chat, wiki, podcasts) and their application, the author discusses how these technologies have altered both the requirements of the student, but also those of the instructor. The author also provides recommendation to successfully incorporate these technologies.

Hara, N. & Kling, R. (2000) Students' Distress with a Web-based Distance Education Course, *Information, Communication & Society*. Vol. 3, No. 4, 2000, pg. 557-579.

The authors focus their research on the perspective of students in a distance education course. The authors used a variety of feedback mechanisms to gauge the students' perspective and identify areas that detracted from the instruction. The data provided a unique perspective to comprehend the impacts that course design, faculty and student preparation, and communication practices have on individual student's perception of the course.

Howland, J. & Moore, J. (2002) Student Perceptions as Distance Learners in Internet-Based Courses. *Distance Education*, Vol. 23, No. 2, 2002, pg. 183-195.

This article presents a study into the perceptions of students in a distance education course. The study also identifies strategies the students employed in order to be successful in the course. A portion of the study was focused on the perceived differences between a traditional course and the distance education course. The perceptions generally match perceptions by teachers, but the study provides valuable insight to allow teachers to effectively manage expectations and help students be successful in a distance education course.

MacKeogh, K. & Fox, S. (2009) Strategies for Embedding e-Learning in Traditional Universities: Drivers and Barriers, *Electronic Journal for e-Learning*. Vol. 7, No. 2, pg 147-154.

The authors investigate the ability of distance learning to assist traditional universities to meet their educational goals. The goals range from widening access, supporting disabled students, to reducing cost. The perspective is unique in that the purpose is not a replacement for traditional instruction, but an extenuation of it. With respect to these unique goals, the article identifies barriers and facilitators that affect the ability of meeting them.

Moore, M. & Thompson, M. (1990) *The effects of distance learning: A summary of literature*. American Center for the Study of Distance Education, Pennsylvania State University, 1990.

This article identifies and discusses issues on how the communication media used for distance education affects a wide variety of educational variables. The issues are of interest for distance education courses despite its age. The article was written when the internet was allowing distance education courses to move away for “correspondence” type interaction to synchronous instruction. The use of the internet provides a great capability, but it also poses a new set of problems for its effective use.

Moore, M. & Kearsley, G. (2005) *Distance Education: A Systems View (2nd Edition)*. New York: Thomson/Wadsworth.

This work is a handbook created to assist in the creation of a distance education course. The book has two common themes: it is based on a systems view of distance education and that distance education is an ever changing field. Designing and implementing a distance education course is not a set of discrete tasks, but rather a collection of efforts that all support an overarching goal. The text also attempts to convey the evolutionary and revolutionary changes based on emerging technology and the ever shifting educational landscape.

Phipps, R. & Merisotis, J. (2000) *Quality on the Line: Benchmarks for success in internet-based distance education*. Washington, D.C.: The Institute for Higher Education Policy

This study identifies 24 benchmarks, divided into 7 categories, considered essential to internet-based education. The study then looks at online programs at six separate institutions to determine the importance of their implementation at each of the outcomes. Each institution offered more than one degree via distance education and was accredited in their respective field. The study determined that the majority of the benchmarks were considered important; however, there was not a consensus by the institutions on several benchmarks.

Puzziferro, M. & Shelton, K. (2009) *Supporting Online Faculty- Revisiting the Seven Principles (A Few Years Later)*. *Online Journal of Distance Learning Administration*, Vol. 22, No. 3, Fall 2009.

This article discusses recent changes in teaching and learning. It focuses on constructivism and its implications for distance education, but the tenets are applicable to traditional education as well. The author provides suggestions for both instructor and institutions to ensure that online education meets students' needs and teachers are supported to provide a quality product. The key tenet is contact between teachers and students to establish a “presence”. The author also takes a look at the support and resources needed to realistically achieve this presence.

Saba, F. (2000) Research in Distance Education: A Status Report. *The International Review of Research in Open and Distance Learning*, Vol. 1, No. 1, June 2000.

The author surveys the research conducted to determine the effects of distance education when compared to traditional in class instruction. The majority of the article focuses on the research conducted based on contemporary education theories. The common theme for these studies was interaction, not only between the student and teacher, but between the students as well. The research negates the assumption that meaningful interaction is assured by physical proximity of student to teacher. The results are applicable to both classroom and distance education.

Sherry, L. (1996) Issues in Distance Learning. *International Journal of Educational Telecommunications*, Vol. 4, No. 4, pg. 337-365.

The author presents cases for and against two of the most popular views that affect instructional design: symbol processing and situated cognition. The article presents several instances of how both were used at the time to create distance education programs at a variety of institutions around the country. A key point from the article was the interaction between the instructor, student, and the facilitator. The facilitator is role that actively manages the online environment used for instruction. The position can be a separate person than the teacher, but is vital to the success of any online course.

Swan, K. (2001) Virtual interaction: Design Factors affecting student satisfaction and perceived learning in asynchronous online courses. *Distance Education*, Vol. 22, No. 2, 2001, pg 306-311.

The article presents empirical data from an undergraduate course to identify general factors that significantly influenced student's satisfaction and their perceived learning. The author used the "community of inquiry" model as the basis for her investigation. From the research, three general factors were identified: clarity of design, interaction with instructors, and active discussion among course participants.

Additional References

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