Reviewing the Basic Themes in Distance Education

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This paper explores a review of distance education literature focusing on the basic themes on open and distance education (ODE). The aim of this study is to figure out the current trend of the research in the field of distance education (DE). This investigation recognizes that distance education research was robustly dominated by strategic issues correlated to the historical development of distance education and the use of educational technology for current teaching and learning delivery modes. Besides, a basic theme of defining DE was also another important area in line with the dynamic concept of DE itself. Aligning with the evolution of DE, significant trend of research towards theories of DE has also been highlighted in the literature. Recently, however, research in the field of DE has been fashioned by more qualitative studies on quality and quality assurance; how these concepts have been interpreted and implemented in different educational settings.

Keywords: distance education, review of distance education research

Introduction

With the rapid spread of open and distance learning (ODL) as a strategic mode in the practice of distance higher education, research, seminar, conference, and the publication of various literature on ODL has also advanced significantly in search for understanding the trends and issues of ODL. Moore (2007) identify that the basic themes in DE can be generated from the definition of DE that includes: the study of communication technology; design of teaching or instruction; administrative, organizational, and policy issues and historical and conceptual foundations. Salas, Kosarzicky, Burke, Fiore, and Stone (2002) disclose that the emerging themes in distance learning research and practice can be classified into definition of distance learning, identification of the major learning theories, how collaboration can be achieved via distance learning, and issues relating to the learners and the effectiveness of the distance learning.

Following their extensive research into the literature published from 1990 to 1999 involving 1,419 total articles, Berge and Mrozowsky (2001) reveal that content themes in DE research literature have been dominated by five out of ten research areas i.e. design issues, learner characteristics, strategies to increase interactivity and active learning, technology selection and adoption, and policy and management issues. Current review of research on DE has also been conducted by Zawacki-Richter, Backer, and Vogt (2009) by examining 695 articles from the most prominent and recognized journals in the field of DE including Open Learning, Distance Education, the American Journal of Distance Education, the Journal of Distance Education, and the International Review of Research in Open and Distance Learning. According to Zawacki-Richter, Backer, and Vogt (2009) the research areas of DE have been characterized by three general themes: DE systems and theories; management, organization, and technology; and teaching and learning in DE. They went on to write that content themes of management, organization, and technology consist of various issues such as learner support services and quality assurance. The former deals with the infrastructure for learner support systems from information and counseling for prospective students to career services and alumni networked. The latter refers to the issues of accreditation and quality standards in DE (Zawacki-Richter, Backer, & Vogt, 2009, p. 25).

Considering the broader area of the themes in DE, in this paper, we will focus on the selected basic themes that relevant to my interest. Themes include the following: the historical foundations of DE, current issues in defining DE, the theory of DE, the use of media and educational technologies for bridging the dialogue and interaction, and the adoption of quality assurance (QA) in DE.

Theme 1: outlining the historical foundations of distance education

The evolution of DE has grown and changed more than a century (Schlosser & Simonson, 2006). Moore and Kearsley (1996) and Peters (2008) disclose that DE has evolved through three different generations: correspondence study, followed by the appearance of the first open universities in the early 1970s, and the use of digitized DE in the 1990s.

Correspondence study

Historical evidence of DE started in the1830s in the form of correspondence study created to teach those who could not to go to the conventional school or university (Holmberg, 1986,1995). Correspondence instruction was initiated when an advertisement in a Swedish newspaper in 1883 promote teaching and learning mode through postal service (Schlosser & Simonson, 2006). Later in 1840, England's newly established penny post allowed Pitman to teach shorthand (Schlosser & Simonson, 2006). It was taken by 'self-instructional texts' (Holmberg, 1995), equipped by communication in writing. It conveyed by postal service as an initially major medium of delivery (Rumble, 1989) that could make possible tuition for 'independent study' (Wedemeyer, 1981) and 'home-based student' (Lambert, 1983). Correspondence study is the first generation of DE in which the principal media of communication are printed courses and the exchange of letters (Holmberg, 1995; Peters, 2008). According to Moore and Kearsley (1996) a large percentage of current DE courses are still conducted by correspondence. The existing literature in the field notes that teaching and learning by correspondence study is the origin of what is today called DE (Moore & Kearsley, 1996; Peters, 2008; Schlosser & Simonson 2006).

Electronic communication

The advancement technology and modern communication media have a significant impact on the delivery modes of DE and "the term correspondence education was felt by many to be too narrow" (Holmberg, 1995, p. 3). According to Perry and Rumble cited in Zuhairi (1994) the use of delivery methods has advanced using radio in the 1940s, television in the 1950s and 1960s, followed by audio and video cassettes and computers in the 1970s and 1980s. As electronic communications technologies more common and advanced since early 1990s, the use of computer-mediated communications (CMC) has broaden the opportunities for the growing of DE (Rovai, Ponton, & Baker, 2008; Simpson, 2002; Schlosser & Simonson 2006). The use of CMC in learning allows the transfer of information between individuals in many ways either asynchronous such as discussion boards or synchronous such as real-time audio and video (Rovai, Ponton, & Baker, 2008). Nowadays, computer networks are becoming commonplace and convenient way to distribute learning materials; they have made internet-based education and online learning programs more attractive to both students and distance teaching providers (Ally, 2004; Anderson, 2004; Koonts, Li, & Compora, 2006; Milheim, 2004; Northrup, 2001). The revolution of industry and electronics has major impacts on DE. Keegan (2000) adds that the information and communications technology (ICT) associated with the electronics revolution of the 1980s made it possible to teach face-to-face at a distance.

Distance higher education

The development of DHE goes back to the decision that the University of South Africa is definitely established distance teaching university through a governmental decree of 1962 (Boucher cited in Holmberg, 1995; Schlosser & Simonson, 2006). Another significant landmark of the DE at the university level has been credited to the founding of the British Open University or Open University of the United Kingdom (UKOU) in 1969 with its first student enrolled in 1971(Holmberg, 1995; Keegan, 1986; Schlosser & Simonson, 2006). Since the early 1970s and 1980s, DTE has gradually been adopted to most English-speaking countries and spread rapidly to other parts of the world (Zuhairi, 1994). Zuhairi went to write that many countries, irrespective of their economic and political ideologies, have urged distance higher education as a strategic way to wider access and equity for higher education provision, including in South East Asian countries, such as, STOU has been launched in 1978, then UT Indonesia in 1984, and recently OUM in 2000.

Theme 2: defining distance education

The concept of DE has been defined in different ways. In its first incarnation of correspondence study, DE is devised as a means of providing education to students who are geographically isolated and who are unable to go to an ordinary school (Shale, 1986). In its further development, however, there are many names have been used to describe the variety of teaching learning process in which there is a physical separation the learners from the teachers such as distance learning, distance teaching, telelearning, flexible

learning (Fuller, 2002; Moore & Kearsley, 1996). Wedemeyer (1981) identifies that the term DE is frequently used very loosely with independent learning, open learning, and external study. Independent learning refers to the learning characterised by learner autonomy and distance from educational authorities. Meanwhile, external study most often used in British and Commonwealth countries, that refers to the extramural or off-campus learning. And open learning come into use after the founding of the British Open University (BOU) that provides part-time learning opportunities for learners at a distance. According to Williams, Paprock, and Covington (1999), open learning has become the catchword used for the same term as DE. However, the proliferation of open universities that employ distance learning system has not helped to clarify the issue. Furthermore, there are also various terms emerged to name a few: distributed learning, virtual learning, web-based learning, flexible learning, open and distance learning (ODL). The last is a term used extensively in European Commission documentation (Keegan, 2000).

With regards to these problematic issues in defining the field of DE, it is important to note that the purpose of a definition is to summarise and clarify rather than complicate. Yet there is still confusion and debate about the terminology of DE. There have been agreements and disagreements among authors on what constitutes DE (Keegan, 1980). Consequently, it is argued that a theoretical basis for DE is needed. According to Garrison (2000), theory is "a coherent and systematic ordering of ideas, concepts, and models with the purpose of constructing meaning to explain, interpret and shape practice" (p. 3). A theoretical understanding of DE is important in order to reach "a common perspective, and a common vocabulary that will help us ask questions in a sensible way and make sense of the problems" (Moore & Kearsley, 1996, p. 197).

Theme 3: Overviewing theory of distance education

While DE has evolved from traditional correspondence courses to networked learning (Taylor, 2001) glamorized by the application of modern educational technology (Dooley, Lindner, & Dooley, 2005), literature in the field reveals a conceptually fragmented framework lack of theory (McIsaac & Gunawardena, 2001; Perraton, 1983). DE has been described by some as no more than "a hodgepodge of ideas and practices taken from conventional education and imposed on learners who just separated physically from instructor" (McIsaac & Gunawardena, 2001, p.1). The lack of theoretical foundations has resulted in the lack of guidance on research to be undertaken and the lack of confidence in planning and decision making in the field (Sewart, Keegen, & Holmberg, 1983). Significant contributions to the theoretical approaches in DE have been made by many scholars. In this paper, however, we will overview some pioneering theories in the field: (1) theories of autonomy and independence, based on the works of Wedemeyer and Moore, (2) theories of industrialization, proposed by Peters, and (3) theories of interaction and communication founded by Holmberg.

Theories of autonomy and independence

Theories of autonomous and independent study are based on the works of Charles Wedemeyer and Michael Moore (Keegan, 1986). For Wedemeyer (1971) the essence of DE is the independence of the learner to organize instruction so that greater freedom in learning is possible for learner. He bases his views of independent study on two concepts: "a democratic social ideal and a liberal educational philosophy" (Keegan, 1996, p. 59). Wedemeyer (1971) said that in democratic social ideal, the acquisition of knowledge, skills, and attitudes should be open to all, nobody should be denied the opportunity to learn for any reasons such as poor, geographically isolated, socially disadvantaged, in poor health, institutionalized, or otherwise being unable to attend the institution's special environment for learning.

Further, Michael Moore shares similar views to that of Wedemeyer. Moore, one of the students of Wedemeyer at the University of Wisconsin, (Wedemeyer, 1981, p. xiii), is attracted by the idea of independence study and leading him to offer his theory at the 1972 ICDE conference (Moore & Kearsley, 1996). For Moore (1973) independent study is an educational system in which the learner is autonomous and separated from the teacher by space and time so that communication is mediated. According to Moore (1973) in distance learning environment the learner and the teacher are connected by a variety of communication techniques. Distance is identified as a function of individualization and dialogue rather than measured by physical proximity such as miles and minutes. Moore (1973) contends that autonomous learners may turn to teachers for help in formulating the problems and their learning tasks. He identifies

"autonomous learner is one who knows how to proceed through each of the learning events" (p. 669). The difference between the non-autonomous and autonomous learners lies in the extent of direction provided by the teacher. The function of the teacher in this teaching and learning relationship is "providing information, advise (or suggestions and recommendations), and reason that help the learner make the decision and understand the reasons for it" (p. 670). Further, Moore develops and refines his theory of independent study by classifying educational programs on the two dimensions of "autonomy" and "transactional distance". He argues that independent study is a generic term describing a major category of educational transaction which consists of "distance" and "autonomy". Distance or telemathic teaching is a teaching program in which the interactions are conducted through print, mechanical, or electronic devices. While, autonomy is the extent to which the learner is able to determine the selection of objectives, resources and procedures, and evaluation procedure (Moore & Kearsley, 1996).

Theory of industrialization

Otto Peters proposes his thought to the relationship between distance teaching and the industrial production process. Peters (1993) argues that DE is a form of study complementary to our industrial and technological age. He describes the industrial approach as "objectification of the teaching process," (Peters, 1994a, p. 111) that "reduces the forms of shared learning, and keeps learners away from personal interactions and critical discourse" (Peters, 1994b, p. 16). Compared with conventional and other forms of study which involves direct interaction, group learning, teacher-centered instruction and teacher-initiated organisation and delivery of instruction, distance study has obviously different characteristics for example highly individualised learning, course-material focus, and learner self-direction (Peters, 1989; 1993). The underlying assumption of Peters' thesis rests with the thinking that "distance education relies and depends on a great number of elements borrowed from the theory and practice of industrial production" (Peters, 2007, p. 58). Thus, the concepts and principles derived from industrial production should also be applied to the analysis of DE, although the comparison is purely heuristic (Peters, 1993).

Peters' (1993) theory of industrialisation invites attention and support as well as disagreement. Garrison (2000), for example, has similar thinking to that of Peters who has perspective that the industrial production model of Peters is "the most coherent, rigorous and pervasive example of distance education theory" (p. 6). For Garrison, Peters' industrial model is not a theory of teaching and learning, but rather a contribution to clear thought about the organisation of DE. On the other side, such as, Ehmann (1981) criticises industrialisation theory as unsympathetic attitude of the world of learning and the commercial character of the DE at that time. Being invited to respond to such critics, Peters (2010) observes them as misunderstanding in which many of those interested in DE have adopted only a narrow and reduced idea of industrialised education.

Theories of interaction and communication

Borje Holmberg has made substantial contributions to the theories of interaction and communication (Garrison, 2000; Keegan, 1983; Schlosser & Simonson, 2006). Other pioneering theorists who have contributed to this field are Baath and Sewart (Keegan, 1983). The core of Holmberg theory is what he call "guided didactic conversation" (Holmberg, 1981, p. 30) introduced in 1960. His theory of DE as a method of guided didactic conversation implies that of a guided conversation is essential to fill the distance between the teacher and the learner. The presence of the typical traits of such a conversation facilitates learning process (Holmberg, 1985).

Holmberg (1995) believes that guided didactic conversation is to influence students' attitudes and goal attainment (Holmberg, 1988). For Holmberg (1995) personal relation, study pleasure, and empathy between students and those supporting them are central to learning in DE. Feelings of empathy and belonging encourage student motivation to study and improve the result of learning (Holmberg, 2007). Therefore, the two forms of communication: counselling and didactic two way communication should be provided in DE system (Holmberg, 1981). Counseling can be performed through correspondence, on the telephone, or face- to-face to encourage and express concern as well as ask pertinent questions. Meanwhile, didactic two-way communication is customary for courses to provide questions, problems and other tasks, evaluation and correction.

According to Holmberg (2011), the unprecedented technological innovation in communications has "further opened new possibilities for interaction among students" (p. 67). Online teaching and student contact with one another spontaneously make individual and group work in DE possible for adults with jobs, families, and other commitments (Holmberg, 2008). They strengthen and advance "the flexibility that from the beginning made [DE] a useful tool in adult education and caters [to] collaborative learning" (Holmberg, 2008, p. 27). For Holmberg (2008), computer technology is an excellent medium for interaction between students and their tutors, for exchanges of views and experiences between individual students and groups of students, and "for all kinds of contact between those engaged in a [DE] program" (p. 29). The next theme will focus on how media and educational technology is becoming a strategic issue in DE.

Theme 4: Utilizing educational technology for distance education

Media and educational technologies specifically computerized communications for bridging the dialogue and interaction among instructors, students, and content has always been a defining feature of DE (Bates, 2008; Kaufman, 1986). According to Kaufman (1986), "the marriage of computers with communications technology" (p. 297) has provided a significant impact on developing and delivering learning materials in various instructional modes. The delivery modes of instruction in DE have been changes from the paper based and processed correspondence study to web-based instructions and other kinds of online learning programs that leads to the possibilities of virtual learning environments (Juwah, 2006; Han, Dresdow, Gail, & Plunkett, 2003; Haughey, Evans, & Murphy, 2008; Koper, 2000). Computer networks are now becoming a convenient way for people to distribute course materials and to participate in learning (Simonson, Smaldino, Albright, & Zvacek, 2003; Friesen, 2011).

While the delivery modes of instruction seem to be evolved involving more advance technologies, the primary purpose of open and distance learning remains on the need to reach quality instruction for learners (Koonts, Li, & Compora, 2006). Therefore, it is important that the use of delivery mode can ensure that instruction fits with the students' interests. Some researchers, such as Luschei, Dimyati, and Padmo,(2008) and Riana, Zuhairi, and Maria (2006) disclose that the innovation of online learning in developing countries, such as Indonesia, has proved daunting task simply because many students in developing countries do not have access to the internet. Although internet kiosks have been developed in some provinces and districts all over the country, access to the internet is relatively difficult for many students residing at rural part and remote regions of the country. Moreover, the lack of skill in information navigation as one of the critical factors to be involved in online program has also proved a big challenge not only for students but also for online instructors. Moore and Kearsley (2005) disclose that DE is much more complex than simply integrating technology in a conventional classroom. Similar thinking to that of Moore and Kearsley (2005), Koonts, Li, and Compora (2006) argue that "Careful planning and a systematic design approach... is essential to make sure that the needs of the students are continuously being met in an ever-changing environment" (p. 32). Therefore, it is important for DE institutions (including faculty, administrators, policy makers, and researchers) to seek ways to better understand how to integrate information and communication technology (ICT) in designing courses and pedagogical strategies.

Theme 5: Assuring quality in distance education

According to the current study, the approach to QA in education points to great variety in methodologies (Maniku, 2008). Some frequent approaches to QA methodologies in education include: (1) accreditation, (2) use of performance indicators (or statement of best practices), (3) student survey, (4) self study or self evaluation, (5) peer review and quality audit, and (6) use of industry-based framework such as total quality management (TQM), ISO 9000 standards, and The Baldrige Award (Bogue, 1998; Maniku, 2008). However in this section, we only overview the first two major approaches for the reason that these methodologies are more commonly used in DHE.

Accreditation

Eaton (2010) reports that accreditation is the oldest system for QA and quality improvement in the world. Accreditation refers to a quality assessment by an authorised body of whether an institution or program qualifies for certain status (Brennan & Shah cited in Maniku, 2008) which the primary purpose is to ensure quality and to support continuous improvement (Olcott, 2003; Sywelem & Witte, 2009).

Accreditation can be defined as "a process of external quality review used by higher education to scrutinize colleges, universities, and educational programs for quality assurance and quality improvement" (Council for Higher Education Accreditation, 2002, p. 1). Accreditation promotes at least five core values of higher education: institutional autonomy and academic freedom (Eaton, 2010), the quality and the efficiency of educational process (Sterian, 1992), and institutional commitment to student learning and achievement (Sywelem & Witte, 2009). However, accreditation also has some serious challenges: (1) it places more emphasis on minimum standards and less on continual re-evaluation, experimentation, and improvement (Maniku, 2008), (2) the correlation between the requirements for meeting accreditation standards and future professional success is not clear, (3) the potential different perspectives of the experts involved make the process subjective is in itself suspicious, and (4) group interests cannot be disregarded by the accreditation process (Sterian, 1992).

The use of performance indicators

The performance indicators (PIs) are generic statements that can be adapted for use by DE providers to maintain and enhance quality (COL, 2009). They can be used as tools to evaluate performance trends in the institution to initiate continuous improvement (COL, 2009) and to monitor efficiency with regard to staff-student ratios, indexes of revenue and capital resources, market share and examination (Harvey & Green, 1993). One of the dilemmas related to QA in DTU lies in identifying suitable benchmark (Stella & Gnanam, 2004) or performance indicators (COL version) which will make the quality assessment clear especially to the QA agency and the DE universities. To use the benchmarks, indicators and sources of evidence are necessary important for judging the level of quality performance (COL 2009; Stella & Gnanam, 2004). For example, without specific indicators the statement of best practice "The institution has well run student support services" (p. 154) does not tell us clearly what characterizes the different levels of performance" to avoid the ambiguity and affect the objectivity of the quality assessment.

Conclusion

The purpose of this study is to provide a general picture of the research trend published in DE. According to the data drawn from a number of authors it was found that research topics in DE have been correlated to some strategic issues in DE. They include the historical and conceptual foundation of DE. In line with development of DE, current issues of defining and major theories of DE have also been addressed in the literature.

Further, this literature review also disclosed that research in the field of DE has also been characterised by a number of qualitative research deals with the application of educational technology for educational purposes emphasizing the importance of ICT for supporting teaching and learning delivery in DE as well as administrative services. In addition, the research areas of DE have been also been dominated by the themes of quality and QA. QA, a concept long associated with the manufacturing sector, has now becoming a strategic issue in DE. The adoption of the concept of quality in DE is challenging, in part because quality in DE is difficult to define and standardized practices remain elusive. This is particularly the case because DE institutions consist of multiple stakeholders, involving relationships between and among faculty, learning material developers, tutors/instructors, learners, administrators, employers, government, and other professional bodies.

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