Historical and conceptual foundations

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ABSTRACT. This article summarizes Section I “Historical and Conceptual Foundations” of the 2007 Handbook of Distance Education. Of the eight chapters, two “A History of Scholarship” by Linda M. Black and “A History of National and Regional Organizations and the ICDE” by Charles Feasley and Ellen Bunker are dedicated to historical perspectives of distance education; another “Trends in Research – A Content Analysis of Major Journals” by Youngmin Lee, Marcy P. Driscoll, and David W. Nelson is centered around research; and five other chapters “A Systems Approach in Theory Building” by Farhad Saba, “The Most Industrialized Form of Education” by Otto Peters, “A Theory of Teaching-Learning Conversations” by Börje Holmberg, “A Theory of Community of Inquiry” by D. Randy Garrison and Walter Archer, and “The Theory of Transactional Distance” by Michael G. Moore are focused on distance education theory/theorists.


KEYWORDS: research, journals, theory, theorists, historical foundations, conceptual foundations.

MOTS-CLÉS : recherche, revues scientifiques, théories, théoriciens, fondements historiques, fondements conceptuels.

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Introduction

Distance education is planned learning that normally occurs in a different place from teaching, requiring special course design and instruction techniques, communication through various technologies, and special organizational and administrative arrangements. (Moore and Kearsley 2005, p. 2)

Distance education is the subject of two comprehensive, in-depth handbooks, one edited in 2007 by Michael G. Moore and one edited in 2003 by Michael G. Moore and William G. Anderson. Intended to provide a solid foundation for grounded research, both editions are designed to be structured guides to what is already known about distance education. The handbooks include chapters by some of the most respected authorities and rising stars in distance education in North America and by some distinguished educators from outside of North America.

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Historical perspectives and research trends

Chapter 1: A history of scholarship

Chapter 1 is based on Black’s (2004) unpublished doctoral dissertation, A Living Story of the Origins and Development of Scholarship in the Field of Distance Education, which interprets archived, data-based, written literature and extensive, in-depth, face-to-face interviews with distance education pioneers Börje Holmberg, Michael G. Moore, and Otto Peters. Black illuminates landmark events in the history of distance education and provides a thoroughly researched, comprehensive survey of the evolution of distance education scholarship. Her works (2007, 2004) includes extensive bibliographies, which provide a solid beginning to the study of distance education’s historical and conceptual foundations.

Black provides a historical perspective of the origins and development of pioneering research and researchers, the roots and evolution of theorizing and
theorists, and the eventual and continuous professionalization of distance education and of those involved in distance education. She emphasizes from the beginning distance education was an international enterprise built upon strong relationships between scholars in North America and overseas, particularly those in Europe. In her overview of lectures, seminars, symposia, workshops, and conferences, she demonstrates that during the 1970s evolutionary trends accelerated, with an influx into distance education of specialists not only from other fields of study but also from new countries, including Third World ones.

Valuable publications and prominent editors, e.g., Desmond Keegan, Fred Lockwood, and Michael G. Moore, important for building a foundation for the field of distance education, are identified. Black names important films, study/learning guides, directories, essays, newsletter, bibliographies, occasional papers, monographs, and journals; and she also names key books, dissertations, and databases. She states the U.S. the American Center for the Study of Distance Education published more than twenty monographs and several important edited books between 1987 and 1997. She also states two of the most comprehensive authoritative resources are the two editions of the popular textbook *Distance Education: A Systems View* by Moore and Kearsley (Thomson-Wadsworth 2005; Wadsworth 1996), which are valuable for their reference lists, glossaries, details of principal journals, and contact details for some of distance education’s organizations.

Black indicates scholars pursuing historical study should read distance education historian Von Pittman’s outstanding publications. These include his superb historiography “Correspondence Study in the American University: A Second Historiographic Perspective” in Moore (2003) and his chapter “Correspondence Study in the American University: A Historiographic Perspective” in Moore (1990). Black notes in recent years there has been an explosion in the U.S. in the number of doctoral dissertations as well as master’s papers about distance education and that the earliest data-based publication under the keywords “distance education” was dated 1981.

**Chapter 2: A history of national and regional organizations and the ICDE**

Feasley and Bunker (2007) provide a historical account of distance education organizations within the U.S. at national and regional levels, organizations whose range demonstrates extraordinary breadth; and they present the 70-year history of the International Council of Open and Distance Education (ICDE), formerly the International Council of Correspondence Education (ICCE), an organization highly responsible for facilitating the international linkages referred to in Chapter 1. A typology, organized by the categories – national pioneering organizations, curriculum specializing organizations, technology networking organizations, regional and virtual consortia, and a primary international linking organization (ICCE/ICDE) – frames the chapter. The national pioneering organizations described are the National Home Study
Council (NHSC) which was renamed the Distance Education and Training Council (DETC), the National University Extension Association (NUEA) which now is the National University Continuing Educational Association (NUCEA), the American Association for Collegiate Independent Study (AACIS), and the U.S. Distance Learning Association (USDLA). Curriculum specializing organizations mentioned are the Association for the Media-Based Continuing Education of Engineers (AMCEE), the National Technological University (NTU) which changed to the NTU School of Engineering and Applied Science at Walden University and is part of the Laureate Corporation, and the American Distance Education Consortium (ADEC). Technology networking organizations mentioned are the National University Telecommunications Network (NUTN), the Instructional Telecommunications Council (ITC), the Public Broadcasting System’s (PBS) Adult Learning Services (ALS), and the Sloan Consortium.

Under regional and virtual consortia, Feasley and Bunker provide critical reflection on the “… U.S. government’s most ambitious attempt to create an open university on a traditional university base, the University of Mid-America (UMA)” (Feasley and Bunker 2007, p. 22). They state the Western Cooperative for Educational Telecommunications (Western Cooperative) developed the first generally accepted basis for evaluating electronically-offered distance learning programs. In addition to the Western Cooperative, Feasley and Bunker identify other virtual universities that have been created by individual states and collaborating states within the U.S.

According to Feasley and Bunker, the ICDE was started by visionary correspondence educators, many of whom also participated in other early pioneering organizations described in Chapter 2. They conclude their ICDE description with five primary trends discovered in the ICCE/ICDE conference proceedings. The trends are: Access to education is a key value for distance educators. Quality is a commitment of distance educators. Research is needed and should inform practice. International participation and representation are important to the ICDE. Distance education is enabled by information communications technology.

Previous work by Feasley worth exploring is Feasley’s chapter “Evolution of National and Regional Organizations” in Moore (2003). Previous works by Bunker worth exploring are: “An Historical Analysis of a Distance Education Forum: The International Council for Distance Education World Conference Proceedings, 1938 to 1995”, which is her 1998 unpublished doctoral dissertation, and “The History of Distance Education through the Eyes of the International Council For Distance Education,” her chapter in Moore (2003). Other fine introductions to organizations are also found in Pittman (2003), Moore and Kearsley (2005, 1996), the American Journal of Distance Education “Speaking Personally” interviews with leaders, and Black’s works (2007, 2004), which describes distance education organizations at an international level. The lists of references, some of which focus on specific organizations, in each of the above-mentioned resources are extensive.
Chapter 3: Trends in research – a content analysis of major journals

Chapter 3 consists of a meta-analysis of 553 research articles published in distance education’s four principal scholarly journals, i.e., Open Learning (United Kingdom), Distance Education (Australia), Journal of Distance Education (Canada), and the American Journal of Distance Education (United States). The four journals are recognized by researchers as the most prominent in distance education and as the ones used most often as data sources in previous research studies. As an advanced organizer, Chapter 3 helps readers identify and position some of the leading theorists and researchers they will encounter in later chapters.

Using content analysis methods, Lee, Driscoll, and Nelson examine research topics, methods, and citation trends. Their goal is to clarify these five questions: What general research topics are the focus of articles that report distance education research? What specific topics are discussed in distance education research articles? Which research methods are applied and are prevalent in distance education research? Whose inquiry has conveyed a major impact on distance education research? What implications might the findings of this study have on future distance education research?

The relative popularity of different research methods and topics are reported and seven valuable tables are provided. The tables delineate: distance education research topics, distance education research specific topic by keyword, distance education research methods, frequency of statistical methods, frequency of cited primary author by journal, frequency of cited books, and frequency of cited journal articles and book chapters. The tables are valuable for those who want to learn recognized authorities and come up to speed quickly in distance education. According to Moore (2007, p. xvi), the 15 books listed in Table 6 are especially important for those pursuing a study of the field of distance education.

This study differs from earlier meta-analyses (see Lee, Driscoll, and Nelson 2007 for cites to previous studies) by classifying articles in a new, unique way and through updating the 2007 meta-analysis by adding recent publications. Lee et al arrived at six research topics, i.e., design, development, management, evaluation, institution and operation, and theory and research; and they constructed seven research categories, i.e., theoretical inquiry, experimental research, case study, evaluation research, developmental research, survey research, and a combination of inquiries which accommodates studies which synthesize two or more research methods. Lee et al also identified types of statistical methods used. Last, they used their new categories of research topics and methods to examine each journal’s reference list to understand whose inquiry had had a major impact on distance education.

Combining this study and other authors’ recommendations, Lee et al suggest that future research should develop in this way. Researchers should move away from single-case anecdotal studies and should move towards theory-driven, empirically-designed studies. Researchers should expand the use of multiple inquiry methods
(combined inquiry, multi-method, mixed method) and require that experimental research is held to a higher standard by being more concerned with validity and reliability issues, adequate sample size, random sampling, the predictive power of findings, and effect size and confidence intervals or even alpha level. Researchers should perform more action research, where an instructor is actively involved with learners in conducting the research, making it possible to integrate research findings with professional development and instructional practice.

**Theorizing about distance education**

Distance education is now so popular and so much discussed that it is hard to imagine a standardized definition of distance education was first published only about thirty years ago and that theorizing emerged only about fifty years ago. Early theorizing attempted to show correspondence teaching as a form of “guided didactic conversation” (Holmberg 1960, 1985, 1995), as “industrial production” (Peters, 1965, 1967, 1994), and as “independent study” (Wedemeyer, 1971). Building upon Wedemeyer, Michael G. Moore’s developed a theory which has become known as “transactional distance” (Moore 1972, 1973, 1980; Moore and Kearsley 2005, 1996).

A synthesis of four leading ideas of distance education, Desmond Keegan (1980) identified six defining elements of distance education in his seminal article in the first issue of the journal, *i.e.*, Distance Education. The four theories Keegan drew on were those of Holmberg, Peters, Moore, and the July 1971 law of France, which regulated distance education in that country. Some of Black’s (2004) dissertation findings stirred distance education pioneers Holmberg, Moore, and Peters to first compare and then dialogue about their theories, which they do in separate chapters of the 2007 *Handbook of Distance Education*. Theoretical works by Holmberg and Peters also can be found in the 2003 *Handbook*. Moore’s theory of “transactional distance” is delineated in a separate chapter only in the newer *Handbook*.

**Chapter 4: A systems approach in theory building**

Emphasizing the special relevance of systems theory for understanding emerging post-modern social systems of which distance education is an example, Saba discusses the importance of a systems approach to theory building in distance education. He argues a systems approach provides the breadth necessary to understand a field that includes theories and methods of praxis from various disciplines and also represents elements of everyday practice that range from the management of complex hardware at one system level to the intricacies and politics of different cultures working together at another system level. He presents specific philosophical underpinnings, research methods, and technologies for distance education theory building, research, and practice that are appropriate for our postmodern era.
Saba’s systems approach is about hierarchical nested relationships. The hierarchy of nested systems levels, which provides a map for navigating the 2007 Handbook chapters, is shown in Figure 4.3 (refer to p. 51).

Saba explains systems thinking in distance education is not new, rather its origins can be traced to pioneering distance educator Charles A. Wedemeyer’s Articulated Instructional Media (AIM) project of 1969, an idea which influenced the design of the Open University of the United Kingdom. Moore’s theory of “transactional distance,” a theory which Saba has elaborated by using computer simulation modeling (see Saba 1988; Saba and Twitchell 1988; Saba and Shearer 1994) is used to demonstrate how a dynamic model can be constructed relative to the instructional variables autonomy and structure. Saba, who argues that the same theory building process should be followed to identify and define theoretical components and their behaviors at all system levels, also analyzed distance education as a system in the first chapter of the 2003 Handbook as well as in the 2007 Handbook.

Chapter 5: The most industrialized form of education

From seven perspectives – anthropological, cultural, economical, historical, organizational, pedagogical, and sociological – Peter empirically studied many distance education systems around the world and eventually arrived at his complex theoretical ideas about distance education as an “industrialized system.” His ideas are detailed in German in his works of 1965, 1967, and 1973 and in English in publications by Keegan (1994); Stewart, Keegan, and Holmberg (1983); and Mackenzie and Christensen (1971).

In his chapter of the 2007 Handbook, Peters’ seven perspectives frame his discussion of “industrialized education.” Under each perspective, Peters begins with a hypothesis. The seven hypotheses (see p. 57-61) are: Anthropological: Industrialization not only has changed man’s relations to his physical and social environment but also has changed man himself as a human being. This means industrial man and information man can be distinguished from pre-industrial man. Cultural: Distance education depends on a general societal atmosphere in which people have progressive attitudes, believe in innovation and development, strive for personal success, and experience active, upward mobility. Economical: Given its industrialized structure, distance education shares a close affinity with business and advances education’s commercialization. Historical: Distance and online education are not stopgap, chance solutions or strange side effects or mere surrogates for traditional education. These forms of education are in-line with inherent trends in the history of learning and, structurally speaking, currently represent the most advanced stages of the development of learning. Organizational: Distance education relies and depends on a great number of elements borrowed from the theory and practice of industrial production. Pedagogical: Under the strong impact of industrialization, distance education became a unique form of teaching and learning that differs in
decisive structural elements from face-to-face education and requires different approaches. Sociological: Using sociological criteria from industrialized production processes, one can more precisely describe characteristic traits of the teaching-learning process in distance education.

Peters explains why his theory, which initially and over the years has been much misinterpreted and misunderstood, is still relevant. In 1989, Peters attempted to clear up misinterpretations and misunderstanding of his ideas; here, Peters again attempts to fully articulate his ideas to clarify his research purpose and reported findings. His theory was intended to be descriptive and explanatory, but Peters acknowledges it can be interpreted to be predictive and prescriptive.

Comparing his theory to Holmberg’s and Moore’s, Peters believes his theory is broader, but theirs, too, are important for understanding distance education. He hopes his work motivates experts to study his intended broad meaning of “industrialized education,” a form of education that caused structural changes in the 19th and 20th centuries and which presently is part of the transformational process of teaching and learning.

Chapter 6: A theory of teaching-learning conversations

Holmberg, who is concerned about the poor quality of interaction and personalization in the design of distance education materials, passionately describes his own theorizing. In 1960 Holmberg tentatively mentioned his idea, initially known as the theory of “guided didactic conversation” in a monograph, and he later further detailed his ideas, now known as “teaching-learning conversations” or the “empathy approach” (Holmberg 1985, 1995).

Holmberg points out that the latest wording of his theory can be found in Holmberg (2005):

Distance education is based on deep learning as an individual activity. Learning is guided and supported by non-contiguous means which activate students, i.e. by mediated communication, usually based on pre-produced courses. The development of courses may apply large-scale methods and may also be carried out for small groups of students. Subject-matter presentation and mediated interaction are the two constituent components of distance education, for which a supporting organisation is responsible. (Holmberg 2007, p. 69)

In Chapter 6 he continues,

As individual study requires a certain amount of maturity, self-discipline and independence, distance education can be an application of independent learning at the same time as it is apt further to develop study autonomy. Central to the learning and teaching in distance education are personal relations, study
pleasure, and empathy between students and those representing the supporting organisation. (Holmberg 2007, p. 69-70)

Feelings of empathy and belonging promote students’ motivation to learn and influence the learning favourably. Such feelings can be developed in the learning process independently of any face-to-face contact with tutors. They are conveyed by students’ being engaged in decision making; by lucid, problem-oriented, conversation-like presentations of learning matter that may be anchored in existing knowledge; by friendly, undelayed non-contiguous interaction between students and tutors, counsellors, and other staff in the supporting organisation; and by liberal organisational-administrative structures and processes.

Emphasizing his theory has generated testable hypotheses, Holmberg not only delineates his testable hypotheses but also identifies those who tested his theory and mentions those who discussed his theory of teaching-learning conversations in journals and other publications.

Last, Holmberg (2007) briefly compares his theory to those of Moore and Peters. Holmberg argues, “There is no contradiction between my theoretical approach and those of Peters and Moore” (p. 74). He claims, “… my own theory is relevant, contributes to the understanding of distance learning, and has the potential to influence the learning, the teaching, and the administration of distance education” (p. 74).

I agree that Holmberg’s “real contribution is the highly competent description of the pedagogical forms that guided conversation can take in ‘good’ distance education” (Peters 2007, p. 65).

Chapter 7: A theory of community of inquiry

According to Garrison and Archer (2007, p. 77),

Theoretical interests and developments in the field of distance education have progressed from a preoccupation with organizational and structural barriers to transactional (teaching and learning) concerns (Garrison 2000). This transformational shift is the result of recent advances in communications technology coupled with a focus on collaborative-constructivist learning theories (Garrison and Archer 2000).

Garrison’s and Archer’s (2007) theorizing is different from theories of distance education that idealize student independence. Instead, their model of distance education heightens awareness of how to foster collaborative and constructive discourse in online learning. Broader than Holmberg’s variables but not so broad as Peters’, Garrison’s and Archer’s model, which is based on the overlapping elements of social presence, cognitive presence, and teaching presence, aims to provide
researchers with the means to systematically study communities of inquiry in relation to critical reflection and higher order thinking.

Those interested in the theorizing about communities of inquiry also should explore earlier works (for example Garrison, Anderson, and Archer 2001; Rourke, Anderson, Garrison, and Archer, W. 2001) by the authors and their colleagues (refer to the 2007 Handbook, Chapter 7, for additional references). In their previous publications the authors define, assess, discuss, and refine their ideas of social, cognitive, and teaching presence.

Of importance, Garrison and Archer identify important people associated, many since the 1990s, with research on computer-mediated communication. Among those cited are: Anderson, Berge, Feenberg, Gunawardena, Harasim, Henri, Hiltz, Kaye, Lauzon, Mason, Moore, Paulsen, and Rekkedal. These authoritative references are invaluable to those studying computer-mediated communications and communities of inquiry.

Chapter 8: The theory of transactional distance

Moore (2007) begins by explaining the historical significance of his own theory. He writes,

When first published (Moore 1972, 1973) what became known as the theory of ‘transactional distance’ (Moore 1980) was an attempt to establish the identity of a previously unrecognized field for educational research. In an educational culture in which all research questions were grounded in the assumption that ‘instruction refers to the activity which takes place during schooling and within the classroom setting’ (Association of Supervision and Curriculum Development, 1971), this theory would identify and describe teaching and learning that did not take place in classrooms, but took place in different locations. Named (for the first time in English) ‘distance education’, what had hitherto been an activity on the margins of educational practice was defined in terms of variables sufficiently robust to enable subsequent research and further theorizing by an ever-growing number of students and academics. As a result, whatever specific issues might engage these scholars of a later generation, it is only by rather convoluted and even bizarre argument that any contemporary writer would argue that there is no such field of research and study as distance education. True, there are those who fail to recognize the broader dimensions of the field, as they focus on one or other of its component parts or one of its many applications – expressed in terms such as distributed learning, tele-learning, and e-learning – and others who by accident or design conflate distance education and ‘contiguous’ (Moore 1972, p. 76) education, using such terms as open learning, blended learning and flexi-learning. However, even such muddling of concepts does not detract from the general recognition that there is a universe of educational programs and practices that are distinctly different from those
where teachers and learners work in the same space and time, a field worthy of study and research, and the practice of which is also worth study and training. It is this recognition and acceptance of the identity of distance education that is the first claim of transactional distance as an educational theory (p. 89).

Moore (2007) continues,

To further appreciate the theory, it is the character of that identity that must be understood, for this was the first American theory to define the field in pedagogical terms. By 1970, though having no recognizable theory, distance education had existed in practice for almost a hundred years, beginning as correspondence study through the mail and later supplemented by radio and television programs, the use of telephone and the computer. As long as this practice was defined solely by the technology, the few research questions that were generated were also stated as studies of the technology—usually how education through that technology might best resemble ‘real’ teaching, i.e. teaching in classrooms. This began to change with the theory of transactional distance, which showed that teaching and learning in separate locations is better understood not as an aberration from the classroom, but as a significantly different pedagogical domain. This domain was first identified by Charles Wedemeyer, who called it ‘independent study’, a term that described the behavior of people who did not study in class but learned alone, either directing their own study, or studying with the help of teaching in the form of correspondence courses (Wedemeyer 1971, p. 90).

After explaining the historical significance of his theory, Moore details the origins and evolution of “transactional distance” (refer to Moore 1972, 1973, 1976, 1980, 1993; Moore and Kearsley 2005; 1996). He explains what is meant by the provision for structure and dialogue and by the consideration of the learner’s need for autonomy, the three components which can change, therefore, impacting the variable, “transactional distance.”

Moore mentions some of the research studies (for example Saba 1988; Saba and Twitchell 1988; Saba and Shearer 1994) his theory has spawned. These studies, which include growing numbers of master’s theses and doctoral dissertations, are a must read for those studying distance education’s theoretical foundations.

Last, Moore compares his own theory to those of Holmberg and Peters. Applying Saba’s idea of hierarchical nested systems, Moore (2007) believes, “Peters’ model of the educational process can be seen as a higher-level system within which the phenomena explained by transactional distance are nested” (p. 100), and he concludes Holmberg’s theory, though important, is a micro not a macro one (p. 100).
Conclusion

The topic “Historical and Conceptual Foundations” is important to academic scholars and practitioners. Historical and conceptual analyses and insights can generate informed questions and provide thoughtful guidance and solid ground upon which we can construct, understand, and evaluate future choices and decisions with respect to distance education scholarship and practice.

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