Researching Practice and Practicing Research: Critique of Distance Education Research and Writing

Michael F. Beaudoin

At this juncture in the development and documentation of distance education as an emerging worldwide phenomenon, new contributions to the corpus of research-oriented literature are critical. While intended to provide validated data for additions to the literature in the field, research has important other benefits: it can be useful in setting agendas and focusing issues for practitioners; in generating action strategies through informed discussions; and in providing bases for greater common understanding among individuals and organizations engaged in distance education activities.

Finally, after a long legacy of distance education practice, we are just now beginning to formulate a coherent definition that distinguishes it as a distinct field of educational practice; to recognize that it is a necessary component of state and national educational delivery systems; that it is a normal means of providing access to education for working adults; and that it is a legitimate field of academic inquiry. Despite noticeable gaps, the literature on distance education grows at an encouraging pace. The new Jossey-Bass book, *Distance Education: The Foundations of Effective Practice* (Verduin and Clark 19 91, 241- 2 6 7), lists twenty-six pages of reference works, most on some aspect of distance education. Still, our imagination in researching and evaluating distance education practice has not kept pace with our innovation in applying distance education principles.

At present, research data remains embarrassingly thin in some areas where there is an especially strong need for convincing evidence to document and demonstrate practice outcomes. For example, in identifying the most essential skill sets for effective distance instruction, we continue to rely largely on anecdotal data based primarily on personal experience, expert opinion, and conventional wisdom rather than on any systematic evaluative data. In documenting the effectiveness of various distance education technologies, little empirical evidence is presented to support claims. Comparative studies on the effectiveness of distance education vs. classroom-based instruction seldom cite criteria used to measure results. A particularly thorough review of distance education literature on the topic of learner achievement at the K- 1 2 level yielded 503 documents, yet only fourteen (14) of these were research-based studies, and even these provided little empirical evidence to support their conclusions (Moore and Thompson 1990, 7).

A review of distance education research conducted by Cookson in 1989 confirmed that descriptive and prescriptive articles far outnumber reports of systematic inquiry. Those reports that can be categorized as empirical research studies largely address two topics: the effects of specific distance education methods and student outcomes as a measure of program effectiveness. The most often studied distance education outcome is attrition in an attempt to identify factors related to student performance. These studies are pragmatic in orientation and seldom utilize

previously developed concepts of adult learning theory. Yet to be examined in any detail is the nature of the adult learning process in the distance education context (Cookson 1989, 22-34).

A computerized national search of all books catalogued under "distance education" (OnLine Computer Library Center, Inc.) published since 1989 yielded fourteen titles that could be categorized as substantive, research-based works. Of these, three were published in 1989, three in 1990, and eight published in 1991. Eight of the fourteen publications presented research data on a single program. The remaining six volumes appear to have examined instructional and distance learner issues from a more "generic" perspective. From this admittedly informal survey we can arrive at two tentative and arguable conclusions: 1) that research-based, book-length works on distance education topics appear to be growing in number judging from the almost 300% increase in titles in 1991 over each of the two previous years); and 2) that a good deal of the research being added to the literature on distance education continues to be confined to findings based on individual programs rather than more comprehensive research studies.

Despite the introduction of several research-oriented journals on distance education which have resulted in much useful and well-regarded writing in the field, a good deal of content still focuses on case studies of individual programs that rely on anecdotal information and observation rather than empirical data. For example, a randomly selected recent issue of *The American Journal of Distance Education* a refereed publication devoted to research and practice, contained five articles of which only two were research based; the others focused attention on practices utilized in a particular program (Moore 1990).

Most so-called research in distance education is still evaluative or comparative and is often not useful or interesting to others than those connected with the program under review. We are studying distance education to influence decisions regarding practice, policy, strategy; yet, most data has limited external validity, does not formulate hypotheses, and does not offer results that can be reliably generalized to other situations. The practitioners complain that distance education research language is too abstract and without practical value, but scholars argue that practical concerns do not readily lead to important research questions.

Coldeway offers an important distinction between evaluative case studies of individual programs and theory-based research-that the latter is more generalizable to other programs and practices. He also notes that we are seeing and reading a lot about distance education, but we still do not know much about its quality because we focus on media, on completion rates, on which technology works best, and on how distance education compares with traditional modes of instruction. But we still do not really know much about learners in distance education contexts, or how they learn and how best to teach them. (Coldeway 1990, 387 ff.)

Research attention to the international context of distance education is particularly lacking. For example, the International Centre for Distance Education undertook a survey of all institutions involved in distance learning, and published its report, *The State of Distance Learning Worldwide* (Perry 1984); to date, there has been no further research effort by the Centre or by any other individual or organization to update this index. That so few individuals involved in distance education in the U.S. are aware of the long legacy of distance education in several foreign countries suggests that there has been an inadequate dissemination of literature reporting on research and practice outside the United States.

To be sure, the studies conducted by the British Open University documenting its practices throughout the 1970s and 1980s have contributed significantly to the body of distance education literature, and indeed served as a catalyst to draw increased attention to a mode of study which, while it had a long legacy in many other countries for decades, remained relatively obscure until the British Open University began documenting its work and raising important questions about its impact on individual learners as well as the society at large.

The paucity of research-supported writing on key distance education topics contributes to lingering skepticism, prevalent myths, and continuing doubts about the credibility of out of-classroom instruction. In a recent discussion with an academic colleague, reference was made to an institution that offers graduate degrees in education through directed independent study. When my associate brought up the dreaded "M-0-D" phrase (i.e., mail order degree), I pointed out that there are now well over one hundred accredited postsecondary programs in the U. S. offering degrees through external study. He responded by pointing out how little literature there seemed to be on the subject, even, in the popular professional press, that might make conventional educators a bit more open minded about distance education practices (Since 1982, I have noted less than a dozen articles related to distance education in *The Chronicle of Higher Education).*

A good deal of popular writing on distance education learning is still preoccupied with defending out-of-classroom instructional methods as noble and efficacious, but most authors seem to leave it to others to provide the data to support their contentions. Ten years ago the excuse was that there was not yet enough data available; unfortunately, we still do not have at our disposal sufficient evaluation research to document our work. Advancing distance education demands adaptive policies to meet changing circumstances and new needs; this requires persuasive evidence derived from ongoing research, but we must be willing to document, analyze and understand our failures as much as our successes.

Most distance education literature today follows the pattern of adult education literature in vogue twenty-five years ago (i.e., case studies with little, if any, empirical data). As distance education programs became more prevalent into the 1980s, much of the early research literature was in the form of evaluation studies designed to present data that could be used to fend off skeptics and critics of this growing phenomenon. As was the case with adult educators, planners and administrators attempting to introduce innovation into traditional settings during the "let a thousand flowers bloom" em in higher education during the 1960s and 70s, distance educators in the 1980s were so preoccupied with establishing effective programs and practices, that relatively little attention has been devoted to research. While more insightful writing and analysis supported by data is now common in adult education (e.g., Brookfield 1988), few distance education authors have moved in this direction.

At the 1991 Research Symposium on Distance Education, current literature in the field was characterized as: descriptive, *ad hoc,* non-generalizable, evaluative, non-theoretical, applied, historical, quantitative and methodologically poor. Perhaps we have not yet adequately discerned what is really important to learn through research, or what theories can be derived from practice. In our zealousness to examine methodological matters, we have largely ignored ideological issues in distance education. We focus on instructional delivery systems, but we eschew contextual considerations, particularly if there are paradoxical or political considerations to address. And we certainly have not integrated much that can be learned from the rich research and writing in the adult education arena. Consequently, we have accumulated much data related to practice, but we have little to guide us in formulating policy. Although ERIC contains 1400 documents relating to distance education, we have yet to create commonly accepted language and definitions governing distance education; we have yet to establish a national agenda or statewide models for distance education; and we have yet to identify the organizing principles and concepts that unify distance education. Hopefully, we are not too far away from agreeing upon and articulating acceptable principles of good practice in distance education that are derived from reliable research in the profession.

Conference presentations and proceedings also reveal conspicuous lacunae. We have observed the proliferation of state, regional, national, and international conferences on distance

education with participants representing an amazing array of programs engaged in all manner of education at a distance. Yet, unless it is an event specifically designed to review and report on recent research results, presentations typically are of the "show and tell" variety. For example, the 1988 and 1989 proceedings *Innovations in Distance Learning* of the Northeast Distance Education Conference (Le Baron 1991) included thirty-four papers; only fourteen percent of these included research references and forty-five percent of the papers were limited to an overview of a single program. This event was widely attended by distance educators and administrators from the entire northeastern region of the country, yet the overall quality of papers left much to be desired in making a respectable contribution to research literature in the field.

It is not only the lack of adequate attention to solid research in the field that is troubling; there are also very basic issues regarding the soundness of research methods utilized to assess distance learning outcomes. White (1991) has made some particularly insightful observations about the state of evaluation research in distance education, especially with regard to the effectiveness of instruction on student learning. She notes that we do not yet know if technology-assisted instruction aids student learning because it has not yet been tried at sufficiently high enough levels and frequency to test its impact; because the curricula in use today is inappropriate to the skills students need for the future; and because our evaluation research methods are archaic. For example, we teach via imagery then attempt to measure learning outcomes with pencil tests. White argues that because distance education is primarily a visual teaching medium, visual evaluation is most appropriate. In short, she advised that we use the same medium to test as is used to teach. This deceptively simple yet fundamental rule should apply to all our evaluation efforts in distance education-match research methodologies to instructional modalities (White 1991, 285).

Evaluation research needs to address new areas of inquiry and move beyond the standard questions regarding student attrition and which technology works best. Following is a suggested research agenda around instruction-related issues (developed at the 1991 The Second American Symposium on Research in Distance Education):

- How do we best evaluate quality of materials?
- Are certain media more suitable to the learning styles of certain students?
- How do we best facilitate interaction in distance education settings?
- What incentives are most effective to facilitate interaction?
- What facilitates or impedes effective learning regardless of the medium?
- How do we integrate the teacher's dual role of instructing and processing.
  What should we ask distance learners about what is helpful for them?
- What can we learn from the earlier low-technology/ external degree/distance education programs?
- What are the critical teacher support systems needed to enhance distance instruction?
- What conditions are essential for creating a supportive learning enviromnent7
- How do we attract non-distant learners and classroom-bound teachers to utilize distance education options?
- What "Principles of Good Practice" for distance educators can we derive from current research?

Despite significant additions to the corpus of literature on distance education during the past decade, there are numerous other critical questions regarding this mode of learning which have yet to be adequately researched. At this stage in the distance education research agenda, questions about which technology works best is not a priority research issue. We need systematic

and collaborative research relevant to the future of distance education, and we need to ask new and fundamental questions relating to pedagogy: Can independent learners fully develop the skills necessary for learning without face-to-face interaction with the teacher? If direct experience, augmented by lectures, discussions, and peer interaction is important for learning, can the independent study environment provide the necessary conditions for the learning process to thrive? Does learning at a distance allow for reflective learning which some learners utilize for optimum cognitive development? If face-to-face classroom encounters are increasingly replaced by tutors and students performing their respective roles at a distance, if instructors are steadily replaced by machines, and if learners work in isolation from one another, will the affective skills largely developed through human interaction be lost? What impact will the changing role of teaching at a distance have on the image and status of teachers accustomed to a visible and dominant presence in the classroom?

How can we more reliably assess resources and determine needs in order to effectively implement the most appropriate distance learning approaches in developing countries? Further, once established, do distance education programs have any significant impact in ameliorating social problems and stimulating change in emerging nations? Can such efforts contribute to both individual advancement and social goals? In countries where major distance learning systems have been implemented and have been in operation for some time, have such efforts contributed to greater self-sufficiency and movement away from the oppressive social control that permeates many societies? Or, when linked with pervasive mass media, have such systems become powerful tools to teach people what to think rather than assist them in developing democratic skills? If a primary rationale for distance learning is to increase access to educational opportunity for greater numbers without time and place constraints, yet at the same time requiring the purchase of home-based learning aids well above the typical cost of books and other printed materials, then will technologically assisted learning be limited to the more affluent learners of a society?

It is important to recognize and acknowledge that research in distance education, as in other areas of inquiry, has an action-oriented dimension to it. Through research, we can isolate lacunae and be guided toward new and provocative questions which can ultimately enhance our practice. Even more immediate applications of research findings are possible when we reflect on our current practice, intervening and altering our approaches as appropriate with the benefit of the data at hand. In this way, we are able to research our practice and concurrently practice our research.

This paradigm is convincingly explicated by Donald Schön in his work, *The Reflective Practitioner(1983)*. Sch6n advocates that practitioners in the various service professions t4 reflect in action" as a dynamic means of enhancing their practice. A practitioner who engages in reflective practice can question the definition of his/her task, the training and the theories he/she brings to it, and the measures and outcomes of performance. In this process, the practitioner reflects on the elements of knowledge and skill he,/she brings to bear on practice, and thus may arrive at new insights regarding the assumptions, techniques, values, and purposes imbedded in his/her initial presumptions and ongoing training to function effectively in a particular profession.

Reflection-in-action is an essential process by which professionals can assess the efficacy of their practice and initiate appropriate interventions and adjustments designed to enhance their roles. It can lead to new concepts of how to better integrate research and practice and how to impact upon the learning systems of professional institutions. It is also a means by which the practitioner can identify areas in which continuing professional training and further research is required. Both researchers and practitioners of distance education can make significant new contributions to the field by synthesizing action and reflection.

Although distance learning programs now exist in diverse forms within and beyond the United States, their proliferation still has not led to the establishment of any fully recognized and reliable source of expertise that institutional planners and decision makers may rely upon for guidance. Distance education, as a distinct profession, will remain undefined and undervalued until there exists more widely accepted principles of good practice for distance educators. A more comprehensive theory of distance education must be articulated through additional research and evaluation that is derived from practice if we are to increase the awareness of others to the philosophy, methods, and efficacy of learning at a distance.

References

Brookfield, S. 1988. Conceptual, methodological, and practical ambiguities in self-directed learning. In *Self-Directed Learning: Application and Theory,* ed. H. Long. Athens, GA: University of Georgia.

Coldeway, D. 0. 1990. Methodological issues in distance education research.

In Contemporary Issues in American Distance Education, eds. M. Moore, P. Cookson, J. Donaldson, and B. A. Quigley. Oxford: Pergainon Press.

Cookson, P. 1989. Research on learners and learning in distance education: A review. The *American Joumal of distance Education* 3(2):22-34.

Le Baron, J., ed. 199 *1. Innovations in Distance Learning;* Springfield, MA- Northeast Distance Planning Committee.

Moore, M., ed. 1990. *The American Journal of Distance education. 4(2).*

Moore, M. and M. Thompson. 19 9 0. *The Effects of Distance* Learning. *A Summary of* Literature. University Park, PA: The American Center for the Study of Distance Education.

On-Line Computer Library Center, Inc. 199 *Literature search: Distance education.* Dublin, Ohio.

Perry, W. 19 84. The state of distance education worldwide. *The First Report of the Index of Institutions Involved in Distance* g. Milton Keynes: International Centre for Distance Learning of the United Nations University.

Schön, D. A. 19 8 3. *The Reflective Practitioner How Professionals Think in Action.* New York: Basic Books.

The Second American Symposium on Research in Distance Education. The Pennsylvania State University. May, 199 1.

Verduin, J. and T. CWk. 199 *1. Distance Educaton: The Foundations of effeective Practice.* San Francisco: Jossey-Bass.

White, M. 199 1. How will we know if distance learning works? *Innovations in Distance Learning,* ed. J. Le Baron. Springfield, MA: Northeast Distance Learning Planning Committee.