Moore, M. G. (1991) Editorial: Distance education theory. American Journal of Distance Education, 5(3), 1-6. Retrieved from https://www.researchgate.net/publication/248940521_Editorial_Distance_education_theory

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EDDL 5101
Educational Technology for Learning

Distance education theory

The need for theory.

We must not hide the fact that there is a great deal of confusion about terminology in the distance education field. In particular the use of the term "distance learning" is troublesome since it suggests actions of one person, i.e. the learner, that are independent of the actions of teachers. Yet every so-called "distance learning" program is in fact a teaching program as well as a learning program, and therefore can only correctly be referred to as distance education. The point is not that the concepts of distance education have not been defined and explored, nor that there is unanimity among scholars about their meanings. In this journal there have been several articles that have contributed to the progress in conceptualization, as well as showing the areas of disagreement. What is needed is more discussion about and understanding of these efforts to organize our knowledge, as well as more careful and thoughtful use of terms. Understanding how we "organize our knowledge" means to understand our theory. That's what theory is, the summary

and synthesis of what is known about a field. It is the reduction of our knowledge to the basic ideas, presented in a way that shows their underlying patterns and relationships. Understanding theory makes it possible for us to speak with a common vocabulary. Understanding it should have the effect of helping practitioners see where their piece of the action fits and interfaces with others and thus lead to better ways of working with others. The theory also helps us understand what we don't know, and therefore is the only guide to research. Research that is not grounded in theory is wasteful. It might solve an immediate problem, but it doesn't fulfill its promise, because if it was related to theory it is likely to solve other problems in different times and different places. In our theorizing we rise above immediate and local concerns and find out what is general and longlasting. This gives us a broad perspective that enables us to analyse the particular instance more effectively; it helps us make decisions that are guided by fundamental teaching and learning principles, rather than in response to the pressure of a particular crisis or the dazzle of a fresh opportunity.

Transactional Distance

The first attempt in English to define distance education and to articulate a theory appeared in 1972 (Moore, 1972) and in 1980 was named as the theory of transactional distance (Moore, 1980). Analysis of the literature that was summarized by this theory led to the important postulate that when we

talk about distance education we are referring to a distance that is more than simply a geographic separation of learners and teachers. It is a distance of understandings and perceptions, caused in part by the geographic distance, that has to be overcome by teachers, learners and educational organizations if effective, deliberate, planned learning is to occur.

The concept of Transaction was derived from Dewey, (Dewey and Bentley, 1949). As explained by Boyd and Apps (1980) it "connotes the interplay among the environment, the individuals and the patterns of behaviors in a situation" (page 5). The transaction that we call distance education occurs between individuals who are teachers and learners, in an environment that has the special characteristic of separation of one from another, and a consequent set of special teaching and learning behaviors. It is the physical separation that leads to a psychological and communications gap, a space of potential misunderstanding between the inputs of instructor and those of the learner, and this is the transactional distance. Little is known about transactional distance and much research is needed to understand it better. What follows are conjectures that have at least stood the test of over twenty years discussion among distance education scholars in several countries, and that might be further elaborated and more formally tested.

It now appears that transactional distance is a continuous rather than a discrete variable, a relative rather than an absolute term. In any educational program there is some transactional distance, even where learners and teachers meet face to face. What is normally referred to as distance education is that subset of educational programs in which the separation of teacher and learner is so significant that it affects their behaviors in major ways, and requires the use of special techniques and leads to special conceptualization. The relative nature of transactional distance means also that within the sub-set of educational programs that we call distance education programs there are many different degrees of transactional distance. When we recognize that distance education is education, we can apply much that we know about teaching
and learning from conventional education in both our theory and in the practice of distance education. In practice, however, we discover that transactional distance in many programs is so great that the teaching we deliver cannot be just like conventional teaching. On the contrary, the transactional distance is such that special organizations and teaching procedures are essential.

These special teaching procedures fall into two clusters, and what determines the extent of distance in a program is a function of these two sets of variables. These are not technological or communications variables, but

variables in teaching and in the interaction of teaching and learning. The two sets of variables are labelled dialogue and structure.

Dialogue describes the interaction between the teacher and learner when one gives instruction and the other responds. The extent and nature of this dialogue is determined by the educational philosophy of the individual or group responsible for the design of the course, by the personalities of teacher and learner, by the subject-matter of the course, and by environmental factors. The most important of these is the medium of communication. For example, an educational program in which communication between teacher and learner is solely by television permits no dialogue; the student might make a response to a teacher, but no consequent response is possible. A program by correspondence is more dialogic, yet not to the same extent as one taught by computer conference because of the pace of interaction. Even in programs that have been described as having no dialogue, such as when the learner is working with print, audio or video recorded media there is a form of highly structured learner-instructor dialogue. In such situations the learner's dialogue is with the person who in some distant place and time organized a set of ideas or information for transmission to, and interaction with an unknown distant reader, viewer, or listener. The dialogue that occurs when a learner and an instructor communicate by an interactive electronic medium is more dynamic than that between expert and learner using a recorded medium, and programs that have it, being more highly dialogic and also less structured, are therefore less distant.

The second set of variables that determine transactional distance are the elements in the course design, or the ways in which the teaching program is structured so that it can be delivered through the various communications media. Programs are structured in different ways to take into account the need to produce, copy, deliver, and control these mediated messages. Structure expresses the rigidity or flexibility of the program's educational objectives, teaching strategies, and evaluation methods. It describes the extent to which an education program can accommodate or be responsive to each learner's individual needs. A recorded television program for example is highly structured, with virtually every activity of the instructor and every minute of time provided for, and every piece of content pre-determined. There is little or no opportunity for deviation or variation according to the needs of a particular individual. This can be compared with many teleconference courses, which permit a wide range of alternative responses by the instructor to students' questions and written submissions. In some ways however the teleconference is more distant than correspondence instruction, since the individual learner might get more individual, less structured, interaction

through the mail than as member of a large group participating in the teleconference. The television program is highly structured and teacher-learner dialogue is non-existant, so that transactional distance is high. In the correspondence program there is more dialogue and less structure. At the other extreme, the extent of transactional distance is likely to be relatively low in those teleconference programs that have much dialogue and little pre-determined structure.

The above discussion should make it clear that the extent of dialogue and the flexibility of structure varies from program to program, rather than from one medium to another. In programs with little transactional distance, the learner receives directions and guidance through both the structure of the course and dialogue with an instructor. In more distant programs, learners have to make their own decisions about study strategies. Even where a course is structured to give directions and guidance, if there is no dialogue, students may decide for themselves whether the instructions will be used, and if so when, where, in what ways, and to what extent. The greater the transactional distance, the more such autonomy the learner has to exercise. While learning style is not a characteristic of transactional distance, there is a relationship between transactional distance and learning style. The greater the transactional distance, the more autonomy the learner has to exercise. The determination whether a program will be of greater or less distance is, as stated earlier, not merely determined by the nature of the communications medium, but by other significant variables within the transactional environment, including the social, psychological and philosophical characteristics of the learner and teacher and the mission of the educational institution.

What determines the success of distance teaching is the extent to which the institution and the individual instructor are able to provide the appropriate opportunity for, and quality of, dialogue between teacher and learner, as well as appropriately structured learning materials. Frequently this will mean taking measures to reduce transactional distance by increasing the dialogue through use of teleconference, and developing well structured printed support materials. Unfortunately what is appropriate varies according to content, level of instruction, and learner characteristics, especially the optimum autonomy the learner can exercise. Much time and effort therefore has to be devoted to understanding the needs of learner populations, and individual learners, to analyzing the content to be taught, to determining the exact learning objectives, the type and frequency of learner exercises and activities and evaluation procedures, and the relationship between the learner and instructors. In other words, much care should be given to determine both

the structure of the program and the nature of the dialogue that is sufficient and appropriate for each set of particular learners, and ideally each individual learner. There are no quick or ready made answers to the question of how much dialogue or structure is needed and desirable for effective learning. Looking for such answers is likely to be a better basis for making decisions about when and how to use media and other resources than any other framework available at the present time.

What is needed for the further development of the theory of distance education? We do not need more labelling or naive descriptions of the variables that distinguish the field, but we need infilling of the theoretical spaces that are now apparant. These concern the inter-relationships of dialogue, structure and autonomy, especially the effects of the new interactive telecommunications. Several articles that touch on this issue have been published in this journal. They are the work of Garrison and Shale and Garrison and Baynton in Canada, Keegan in Australia, and Saba in the United States. Keegan's ( ) approach has been to review several basic theories and other writings, including the theory of transactional distance, and to draw from them what he considers to be the distinguishing characteristics of distance education. Garrison and Baynton (   ) have taken up the idea of learner autonomy in their analysis of learner and teacher control, including an examination of the effect of dialogue and structure on learner control and autonomy. Saba (1989)has expanded the concept of transactional distance by using system dynamics to produce a model of the dynamic inter-relationship of dialogue and structure. He refers to "integrated systems" of telecommunication media and explains that maximization of dialogue via integrated systems minimizes transactional distance. These initiatives should lead to the generation of hypotheses and empirical testing. Empirical research is needed to test the theory, and empirical research should be better grounded than it has been in theory. The development of a successful symbiotic relationship between the two endeavors is in the best interests not only of the researchers themselves, but ultimately of practitioners and learners also.

References
Boyd, R., J.W. Apps and Associates (1980). Redefining the Discipline of Adult Education. San Francisco. Jossey Bass.

Dewey, J., and Bentley, A.F.(1949) Knowing and the Known Boston: Beacon Press.

Garrison, R. and Baynton, M.. (date) Beyond independence in distance

education: the concept of control. The American Journal of Distance Education, page..

Garrison R. and Shale, D.G. (date) Mapping the Boundaries of distance education: problems in defining the field. The American Journal of Distance Education (page)

Keegan, D. (date) Problems in Defining the field of distance education. The American Journal of Distance Education (page)

Moore,M. (1972) Learner autonomy: The second dimension of independent learning. Convergence V(2):76-88

Moore, M. (1980) "Independent Study" in Boyd, R., J.W. Apps and Associates Redefining the Discipline of Adult Education. San Francisco. Jossey Bass.

Saba, F. (date)Integrated telecommunications systems and instructional transaction. The American Journal of Distance Education (Page)
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