

## Theory and Distance Education: At a Glance

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**Abstract:** Theories guide the practice and research of distance education. Traditionally, theories of distance education have been derived from classical European or American models based on correspondence study. Recently, telecommunications systems have significantly altered the practice of distance education in the United States and have produced a uniquely American approach to this field. This has created the need for a new theory to guide the practice of distance education. This theory, called Equivalency Theory, is described and compared to the historical theories of distance education. This paper will discuss both the need for theory and several traditional theoretical approaches that have influenced the field. A distance education theory based on the American practice of education will be presented. The paper's purpose is to provide a summary and synthesis of the significant theories supporting the practice of distance education and to propose a new, uniquely American theory of distance education.

**Keywords:** Theory, Distance Education, Teaching, Learning

### 1. Introduction

Attempts have been made for defining the term 'Distance Education'. There is difference among these definitions because on the particular aspect of distance education has been made prominent.

*According to Borje Holmberg (1981)* – The various forms of study at all levels which are not under continues, immediate supervision of tutors present with their students in lecture rooms on the same premises, but which, nevertheless, benefit from the planning, guidance and tuition of tutorial organization.

What is increasing about *Holmberg's* definition is that distance education is being looked upon as an organized educational programme.

*According to Wedemeyer (1977)* – *Wedemeyer* has used terms 'Open learning', 'Distance education' and 'Independent study' in his work, but favours the last term consistently. He defines 'Independent learning' as follows:

"Independent study consists of various forms of teaching learning arrangements in which teachers and learners carry out their essential tasks and responsibilities apart from another, communicating in a variety of ways. Its purposes are to free on-campus or external learners with the opportunity to continue learning in their own environments and developing in all learners the capacity to carry on self-directed learning, the ultimate maturity required of the educated person."

*According to Moore (1976)* – *Moore* is more explicit in so far as the characteristic features of distance education are concerned. According to him distance education teaching may be defined as the family of instructional methods in which the teaching behaviours are performed apart from learning behaviours, including those that in a contiguous situation would be performed in the learner's presence, so that communication between the teacher and the learner must be facilitated by print, electronic, mechanical or other devices.

At least three features of distance education are clearly discernible in this definition:

1. the teaching behaviour remains separated from the learning behaviour;
2. face-to-face teaching and learning forms a part of the system; and

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3. Electronic and other media may be used to effect learning and teaching.

*According to Dohmen (1977) – Dohmen* was a Director of the German Distance education institute. *Dohmen* defines distance education as “ a systematically organised form of self study in which student counselling, the presentation of learning materials and securing and supervising of students’ success is carried out by a team of teachers, each of whom has responsibilities. It is made possible at a distance by means of media which can over long distances.” This definition places emphasis upon the importance of self study. This feature of distance education is emphasised in *Wedemeyer’s* definition too like *Wedemeyer* and *Moore, Dohmen* also emphasises correctly the use of the media which is what enable distance education to reach out of the consumer of education. We notices that all the three thinkers quoted above focus, partly explicitly and partly implicitly, on two aspects of distance education. These are:

1. Self study, and
2. The use of media for educational communication.

The point being made is that as against the oral communication used in the conventional classroom type of teaching, which is not a process of self-study, distance education uses print, electronic media and oral face-to-face situation for purposes of self-study which is the basis of distance education.

Although various forms of distance education have existed since the 1840s and attempts at theoretical explanations of distance education have been undertaken for decades by leading scholars in the field, the need for a theory of distance education has been largely unfulfilled until recently. *Holmberg (1986)* stated that theoretical considerations give distance educators a touchstone against which decisions can be made with confidence. In *1988, Holmberg* reiterated the need for theory, stating that: One consequence of such understanding and explanation will be that hypotheses can be developed and submitted to falsification attempts. This will lead to insights telling us what in distance education is to be expected under what conditions and circumstances, thus paving the way for corroborated practical methodological application.

*Keegan (1995)* reaffirmed the continued need for a theory of distance education by stating that a firmly based theory of distance education is one that can provide the touchstone against which, financial, educational, and social can be made with confidence. Theory would thus cease to be an ad hoc response to a set of conditions arising in crisis situations of problem-solving, characteristic of the field of education.

In a general sense, theory is taken to mean a set of hypotheses logically related to one another for explaining and predicting occurrences. *Holmberg (1985)* stated that: the aim of the theoretician is to find explanatory theories; that is to say, the theories which describe certain structural properties of the world, and which permit us to deduce, with the help of initial conditions, the effects to be explained. *Holmberg (1995)* further defined theory as, “a systematic ordering of ideas about the phenomenon of a field of inquiry, and an over-arching logical structure of reasoned suppositions which can generate testable hypotheses.” He suggested that distance education has been characterized by a trial and error approach, with little consideration given to a theoretical basis for decision-making, and that the theoretical underpinnings of distance education are fragile. Most efforts in this field have been practical or mechanical and have concentrated on the logistics of the enterprise.

*Holmberg and Keegan (1986)* both consider distance education as representing a distinct form of education, the latter concluding that it is parallel to and a complement of conventional education. However, *Shale (1988)* countered that all that constitutes the process of education when teacher and student are able to meet face-to-face also constitutes the process of education when teacher and student are physically separated.

In his landmark work, *The Foundations of Distance Education (1986)*, Keegan classified theories of distance education into three groups: theories of independence and autonomy, theories of industrialization of teaching, and theories of interaction and communication. A fourth category seeks to explain distance education through a synthesis of existing theories of communication and diffusion as well as philosophies of education.

The search for a theory that can guide practical work is a complicated endeavour. Epistemological concern must be considered, descriptive elements must be identified, explanatory and predictive potential looked into. A theory explaining and predicting occurrences in distance education are imaginable as far as

teaching and learning are concerned. Below an attempt to develop such a theory of teaching for distance education will be presented. There may be several types of theories which are helpful to understand the psychology of distance education. There are most important theories which exclusively deal the nature of distance education. They are:

## 2. Independent Study- Charles Wedemeyer

Wedemeyer was associated with the university level distance education in USA from early 1960s to 1970s. He is a liberal in outlook which is manifest in his work in the field of distance education. His contribution to the theoretical foundation of distance education comprises his analysis of the difference between distance education and the conventional face-to-face education. His analyses, while focusing on the major distinctions/differences between the two, present three key notions:

- Autonomy of the learner,
- Distance between the teacher and the learner, and
- Structural system

**2.1 Autonomy of the learner:** It is Wedemeyer's writing which popularised the expressions 'independent study', 'open learning' and 'distance education'. 'Open education' is an expression which has given meaning to the term 'open university', and 'distance education' is the expression which replaced the expression 'correspondence education' officially in the year 1982. At the core of all three expressions is Wedemeyer's notion of 'learner autonomy'. Wedemeyer's definition of independent study gives us a clue for understanding the concept of learner autonomy. The learner studies independently in his own environment free from the constraints of inappropriate class placing' and develops in himself a capacity and maturity that enables him to carry on 'self-directed learning'.

**2.2 Distance between the teacher and the learner:** As indicated above, student autonomy has many pedagogic implications. The strongest of them all is that the learner has to learn apart from the teacher. How different is this proposition from the orthodox classroom teaching?

A classroom situation comprises five components:

1. the teacher
2. the learner,
3. the subject-matter which is taught and learned
4. a communication system, and
5. the classroom, i.e., the pedagogic site.

**2.3 Structural System:** The expected cultural changes which have been suggested above necessitate redefining the characteristics of learner, teacher and the education system in order to make non-contiguous educational communication pedagogically effective. Such a redefinition of these characteristics forms the basic of a system that is structurally different from the traditional formal system of education. And we may call it a non-contiguous educational system. This new system may be visualised in the following features:

1. the learner has to take much greater responsibilities for learning than he was used to;
2. wider choice of both the content and the methods has to be provided to the learner.

## 3. Independent Study Revisited- Michael Moore

Moore independent study is a generic term which describes all such educational transactions as may be distinguished from the traditional formal education in terms of the variables of distance or 'apartness' and 'autonomy'. He describes the traditional formal system by the expression 'school environment' which is characterised by the classroom lecture or seminar and a setting in which the teaching and the learning activities are not only 'contemporaneous, but 'coterminous' also. And all other educational transactions which allow 'distance' and 'autonomy' are forms of independent study, be they Open University programmes, correspondence courses, external degree programmes or teach – yourself programmes. Any and all of these educational programmes can be classified in terms of the two variables, namely 'distance' and 'autonomy'. Being variables, both 'distance' and 'autonomy' can be expressed/ represented as continuation the basis of three critical characteristics of the system of independent study namely:

- Dialogue
- Individualisation ( or lack of structure) and
- Structure

Here we should remind ourselves that is the difference in the degree of dialogue and individualisation that differentiates a distance learner, a distance teacher, and distance teaching/learning from their counter parts in the traditional formal education.

#### **4. An Industrialised Form of Teaching and Learning - Otto Peters**

This view of **Peters** development partly from his extensive survey of distance education during the 1960s. In 1973 he made his major contribution to the theory of distance education through a book (in German) entitled ‘**the didactical structure of distance, teaching: Investigations towards an industrialised form of teaching and learning.**’ From his surveys he concluded that distance learning/teaching was ‘an industrialise form of teaching and learning.’

It should be mentioned here that Peters did not ignore the conventional theoretical inputs to arrive at such conclusions. Far from that, he, in fact used these inputs to strengthen his view that, distance education is and ‘industrialised’ form of education. That distance education is a phenomenon that is very different from conventional education:

- The didactical intension of a distance teacher is bound to be of a higher degree in the cognitive domain, but of lower degrees in psycho-motor and affective domains.
- The choice of content cannot be as vast and varied in distance education, as it may be in the conventional system (Face-to-face components have to be introduced, if practical of various types constitutes parts of the content.)
- Teaching methodology and the selection of media also undergo major changes, as very many conventional methodologies cannot be used at a distance.
- Differences in personal characteristics and socio-cultural back ground of the learners are also non-conventional –first generation learners complete with traditionally elite groups, middle aged learners find themselves grouped with younger learners etc.

From this, peters concludes that the categories proposed for analysing conventional didactical structure are not adequate for analysing the structure and/or process of distance education, and proposes to analyse distance education with the help of categories taken from ‘industrial’ theory and practice.

#### **5. Guided Didactic Conversation - Borje Holmberg**

The fourth significant contribution to theory of distance education is the concept of ‘Guided Didactic Conversation’ propounded by Borje Holmberg.

Outlining this notation of ‘*conversation*’ in his book Status and trends and distance education. **Holmberg (1981)** says:

A kind of conversation in the form of two –way traffic occurs through the written and telephone interaction between the students and the tutors and others belonging to the supporting organization. Indirectly, conversation is brought about by the presentation of study matter, as this one-way traffic causes students to discuss the contents with themselves. The conversation is thus both real and simulated.

Elaborating further his concept of ‘Guided Didactic Conversation’ he says:

“My theory of distance education as a method of guided didactic conversation implies that the character of good distance education resembles that of a guided conversations aiming at learning and that presence of the typical traits of such conversation facilitates learning.”

#### **6. Human Element in an Industrialised form of Teaching and Learning - David Sewart**

Sewart argue that distance education institution/universities are essentially institutions of mass education, and a particular package of materials is served to hundred of students, and in many cases to thousands of them. Can such a single package perform all the functions of a teacher on the one hand, and cater to the vast variety of the needs and the idiosyncrasies of distance learners on the other? Sewart’s answer to both the questions is a clear ‘no’.

If a package of materials with such qualities is to be produced it will be formidably expensive, as it will have to display all the interactive processes which obtain between the teacher and each individual learner. The implication is that, however sophisticated the design and vast the reach of such materials may be, the learner body will always need additional human support which alone can match the infinite variety of problems that non-contiguous teaching/learning give rise to. The distance teaching institutions will have to provide this advisory and tutor support through a human energy which alone can guarantee the 'continuity of concern for students learning at a distance learning at a distance'. The pre-planned package of materials is a constant. It needs human versatility to help the distance learners exploit this constant to satisfy an infinite variety of their needs and difficulties.

## 7. A Synthesis of Existing Theories - Perraton's (1988)

**Perraton's (1988)** theory of distance education is composed of elements from existing theories of communication and diffusion as well as philosophies of education. It is expressed in the form of fourteen statements, or hypotheses. The first five of these statements deal with the way in which distance teaching can be used to maximize education:

- You can use any medium to teach anything.
- Distance teaching can break the integuments of fixed staffing ratios that limit the expansion of education when teacher and student are in the same place at the same time.
- There are circumstances under which distance teaching can be cheaper than orthodox education, whether measured in terms of audience reached or of learning.
- The economies achievable by distance education are functions of the level of education, size of audience, choice of media, and sophistication of production.
- Distance teaching can reach audiences not reached by ordinary means.

## 8. Equivalency Theory- Simonson (1995)

In elaborating on this theory, Simonson (1995) states that it should not be necessary for any group of learners to compensate for different, possibly lesser, instructional learning experiences. Students should have learning experiences that are tailored to the environment and situation in which they find themselves. Thus, those developing distance education systems should strive for equivalency in the learning experiences of all students, regardless of how they are linked to the resources or the instruction they require. There are several key elements to Equivalency Theory; they are the concepts of equivalency, learning experiences, appropriate application, students, and outcomes.

The equivalency approach is generally supported by **Shale (1988)**, who argued that distance education is not a distinct field of education. Keegan (1995) supports this idea, stating that:

This new approach to distance education based on virtual classrooms requires a substantially different theory upon which to base practice than the traditional view of distance education as it has been practiced in the past. The study of virtual and electronic classrooms is an important and complex field, still in its beginnings, with a unique contribution to make to educational knowledge.

## 9. Evaluating Theories - Keegan (1986)

**Keegan (1986)** suggested that the theoretician had to answer three questions before developing a theory of distance education: Is distance education an educational activity? Is distance education a form of conventional education? and Is distance education possible, or is it a contradiction in terms?

*Is distance education an educational activity?* Keegan answered that while distance education institutions possess some of the characteristics of businesses rather than of traditional schools, their educational activities are dominant

*Is distance education a form of conventional education?* Keegan stated that because distance education is not based on interpersonal communication and is characterized by a privatization of institutional sized learning (as is conventional education), it is a distinct form of education. Therefore, while the theoretical basis for distance education can be found within general education theory, it cannot be found within the theoretical structures of oral, group-based education.

*Is distance education possible, or is it a contradiction in terms?* Keegan points out that if education requires intersubjectivity shared experience in which teacher and learner are united by a common zeal then distance education is a contradiction in terms. Distance *instruction* is possible, but distance *education* is not. Again, the advent of virtual systems used in distance education challenge the traditional answer to Keegan's question.

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