# Distance Education: International Perspectives

Edited by DAVID SEWART, DESMOND KEEGAN and BÖRJE HOLMBERG



38.103

# Distance Education: International Perspectives

Edited by DAVID SEWART, DESMOND KEEGAN and BÖRJE HOLMBERG

CROOM HELM London & Canberra ST. MARTIN'S PRESS New York ©1983 D. Sewart, D. Keegan and B. Holmberg Croom Helm Ltd, Provident House, Burrell Row, Beckenham, Kent BR3 1AT Croom Helm Australia, P.O. Box 391, Manuka, ACT 2603, Australia

British Library Cataloguing in Publication Data

Distance education.

1. Correspondance schools and courses
II. Sewart, David II. Keegan, Desmond
III. Holmberg, Börje
371.3 LC5915
ISBN 0-7099-1525-X

All rights reserved. For information write: St. Martin's Press, Inc., 175 Fifth Avenue, New York, N.Y. 10010 First published in the United States of America in 1983

Library of Congress Cataloging in Publication Data

Distance education.

Bibliography: p. Includes index.

1. Distance education—Addresses, essays, lectures.

I. Sewart, David. II. Keegan, Desmond. III. Holmberg

Börje.

LC5800.D57 1983

371.3

83-4973

· 大學 養養養

ISBN 0-312-21319-0 (St. Martin's Press)

### PREFACE

In 1971 Ossian MacKenzie and Edward L. Christensen published The changing world of correspondence study: international readings through the Pennsylvania State University Press. It presented a comprehensive overview of education at a distance up to the end of the 1960s.

Enormous changes have taken place since their publication.

Distance education, for long the cinderella of the educational spectrum, emerged in the 1970s and early 1980s as a valued component of many national educational systems in both developed and developing countries. The foundation of the Open Universities, developments in communications technology and in audio-, video- and computer-based learning, a new sophistication in the design of print-based materials and better support systems for the student learning at a distance, have all contributed to the availability and quality of distance education programmes.

In this book we chronicle these developments and seek to provide a new scholarly basis for the theory and practice of education at a distance. The articles selected come from leading writers in many countries. Some have been specially translated for this volume and appear in English for the first time. Others come from sources not generally available to educationists or from the journals <u>Listance Education</u>, <u>Epistolodidaktika</u> and <u>Teaching</u> at a <u>Distance</u> which are not yet held by even the most comprehensive educational libraries.

The introductions place the articles in their context and draw the reader's attention to the outstanding issues in the literature, giving references to further studies which it did not prove possible to include in this volume.

- Keegan, D., "On defining distance education", <u>Distance Education</u>, 1,1 (1980), 13-36. Reprinted by permission.
- Perraton, H., "A theory for distance education". Article from Prospects, Vol.11, No.1 copyright Unesco 1981. Reproduced by permission of Unesco.
- Sewart, D., "Distance teaching: a contradiction in terms?",

  <u>Teaching at a Distance</u>, 19, 8-18. Copyright 1981

  The Open University Press. Reprinted by permission.
- Moore, M.G., "On a theory of independent study", ZIFF
   Papiere 16, November 1977 (Hagen: Fernuniversität).
  Reprinted by permission.
- Peters, O., "Distance teaching and industrial production: a comparative interpretation in outline", translation of "Fernstudium und industrielle produktion: skizze einer vergleichenden interpretation", pp.47-63 of Ökonomische theorie und wirtschaftliche praxis festschrift zum 65. geburtstag von Rolf Hansehmann (Herne/Berlin: Verlag Neue Wirtschafts-Briefe, 1981). Reprinted by permission.
- Wedemeyer, C., "Backdoor learning in the learning society",
   pp.199-205, 215-219, 239-240 of Learning at the backdoor
   (Madison: University of Wisconsin Press, 1982) Reprinted by permission.
- Sandburg, C., extract from <u>The People, Yes</u> (New York: Harcourt Brace Jovanovich Inc., 1936). Reprinted by permission.
- Escotet, M., "Adverse factors in the development of an open university in Latin America", PLET, 17,4 (1980), 262-270. Reprinted by permission.
- Pagney, B., "What advantages can conventional education derive from correspondence education?", translation of "Quels advantages l'enseignement á distance peut-il offrir á l'enseignement formel?" (EHSC Conference 1980). Reprinted by permission.
- McIntosh, N., Woodley, A., & Morrison, V., "Student demand and progress at the Open University - the first eight

- years", Distance Education 1,1 (1980), 37-60. Reprinted by permission.
- Smith, K.C., "External studies at New England a silver jubilee review, 1955-1979", pp.viii-ix, 33-41. (Armidale: the University of New England, 1979). Reprinted by permission.
- Rekkedal, T., "Research and development activities in the field of distance study at NKI-Skolen, Norway", <a href="Epistolodidaktika">Epistolodidaktika</a> 2 (1978), 29-38. Reprinted by permission.
- Bates, A.J., "Trends in the use of audio-visual media in distance education systems", pp. 8-15, Daniel, J.S., Stroud, M.A., & Thompson, J.R., eds., Learning at a distance: a world perspective. (Edmonton: Athabasca University/ICCE, 1982). Reprinted by permission.
- Beare, H., "Education by satellite: Australian possibilities", Unicorn 6,3 (1980), 334-342. Reprinted by permission.
- Sparkes, J.J., "On choosing teaching methods to match educational aims", ZIFF - Papiere 39, January 1982. (Hagen: Fernuniversität). Reprinted by permission.
- Baath, J., "A list of ideas for the construction of distance education courses", pp.63-80 of Holmberg, B., & Baath, J., Distance education: a short handbook, (Malmö: Liber-Hermods, 1982). Reprinted by permission.
- Ljoså, E., & Sandvold, K., "The student's freedom of choice within the didactical structure of a correspondence course", <u>Journal of Correspondence Education Vol.1/EHSC</u> Autumn 1976 workshop paper. Reprinted by permission.
- Jenkins, J., "Tell me how to write", pp.227-229 of Daniel, J.S., Stroud M.A., & Thompson, J.R., (eds), Learning at a distance: a world perspective (Edmonton: Athabasca University/ICCE, 1982). Reprinted by permission.
- Clenell, S., Peters, J., & Sewart, D., <u>Teaching for the Open University</u> pp.5-10, 17-24. (Milton Keynes: the Open University, 1977). Reprinted by permission.
- Daniel, J.S., & Marquis, C., "Interaction and independence: getting the mixture right", Teaching at a Distance, 14, 29-44. Copyright 1977. The Open University Press. Reprinted by permission.
- Schwarz, R., "The consultation in the process of distance education". This translation of Dr. Schwarz's (1975) speech "Die Konsultation im Studienprozess des Fernstudiums" was authorised by Prof. Dr. H. Möhle, Leipzig, and is published with his permission.
- Wagner, L., "The economics of the Open University revisited", <u>Higher Education</u> 6 (1977), 359-381. Reprinted by permission.
- Snowden, B.L. & Daniel, J.S., "The economics and management of small post-secondary distance education systems",

  Distance Education 1, 1 (1980), 68-91. Reprinted by permission.

Rumble, G., "Economics and cost structures", pp.220-234 of Kaye, A., & Rumble, G. (eds.), Distance teaching for higher and adult education (London: Croom Helm, 1981). Reprinted by permission.

We are grateful to the above authors, publishers and editors of periodicals. Without their permission, assistance and support it would not have been possible to carry forward a project of this sort.

I am also deeply indebted to my secretary, Miss Gillian Brown and Miss Fiona Sewell for her editorial assistance. Both have provided unstinting support and notable patience in the face of the numerous problems and set-backs which have been met and overcome.

David Sewart

## CONTENTS

Pielace		TX
Acknowledgements		Хi
Section 1: The co	ncept of distance education	
	-	
Introduction		1
Desmond Keegan	On defining distance education	6
Hilary Perraton	A theory for distance education	34
David Sewart	Distance teaching: a contradiction	
	in terms?	46
Section 2: Theori	es of distance education	
,		
Introduction		63
Michael Moore	On a theory of independent study	68
Otto Peters	Distance teaching and industrial	
	production: a comparative inter-	
•	pretation in outline	95
Bőrje Holmberg	Guided didactic conversation in	
	distance education	114
Section 3: Distan	ce education and society: a rationale	
		123
Charles A. Wedeme	yer	
	Back door learning in the learning	
	society	128
Miguel Escotet	Adverse factors in the development	
	of an open university in Latin	
	America	141
Bernard Pagney	What advantages can conventional	
	education derive from correspon-	
	dence education?	157

# Section 4: Students and their progress

Introduction		165			
Naomi E. McIntosh,	Alan Woodley & Val Morrison				
	Student demand and progress at the				
	Open University - the first eight				
	years	170			
Kevin C. Smith	External studies at New England -				
	a silver jubilee review, 1955-1979	195			
Torstein Rekkedal					
202000000	in the field of distance study at				
	NKI-Skolen, Norway	211			
	interpretation in the second s				
Section 5: Choice	of medium: the new communications techno	loav			
5. 6.10200	01 10110110 1011 0011111111111111111111				
Introduction		221			
Tony Bates	Trends in the use of audio-visual				
10, 20005	media in distance education				
	systems	227			
Hedley Beare	Education by satellite:	221			
neurcy beare	Australian possibilities	242			
I I Consultat		242			
J.J. Sparkes	On choosing teaching methods to	251			
	match educational aims	251			
Santian 6. Course	darra la manut				
Section 6: Course	deserobment				
Introduction		267			
	A list of ideas for the construc-	207			
DOIN A. Baach	tion of distance education courses	272			
Erling Ljoså & Karl		212			
milling bjosa & kar.	The student's freedom of choice				
	within the didactical structure				
Tomak Tombins	of a correspondence course	291			
Janet Jenkins	Tell me how to write	316			
Section 7: Student	support services				
Introduction					
# Clarell 7 Part	6.0	321			
\$. Clenell, J. Pete					
John C. Doniel C. Cl	Teaching for the Open University	327			
John S. Daniel & Cl					
	Interaction and independence:				
- 116 - 1	getting the mixture right	339			
Rudolf Schwarz	The consultation in the process of				
	distance education	360			
Section 8: Economic	28				
		369			
Leslie Wagner	The economics of the Open				
	University revisited	374			

Barry L.	Snowden &	John S. Daniel The economics and management of small post-secondary distance	
Greville	Rumble	education systems Economics and cost structures	
Index		,.:::	439

### SECTION 1: THE CONCEPT OF DISTANCE EDUCATION

### INTRODUCTION

### The term distance education

Distance education is a fairly new term. It denotes the forms of study not led by teachers present in class-rooms but supported by tutors and an organisation at a distance from the student. This brief description allows an interpretation which equates distance education with correspondence education. The reason why the term distance education has come into being is that the word correspondence is felt to be associated exclusively with the written word, whereas usually audio recordings and often radio, TV, telephone communication and other media nowadays supplement the written word in what is here called distance education. Sometimes, particularly in the USA, independent study is used as a synonym.

Correspondence education can be and often is taken to denote this multi-media approach. This is for instance the interpretation of the Association of British Correspondence Colleges. Others reserve the term correspondence education for the types of distance education which are entirely based on printed courses and communication in writing.

# The characteristics of distance education

Distance education, whether concerned with elementary, university, informal, occupational or professional study, regularly includes three types of activity on the part of the organisation that administers it, i.e.

- the development of self-instructional study material,
   i.e. courses printed and/or recorded which may either
   be self-contained or of a study-guide type relying on set texts
- teaching at a distance by comments in writing, on the telephone or on audio cassettes on students' work submitted
- counselling and general support of students' work by

For the students this implies interaction with the course material, with tutors and counsellors. The study is an individual activity, however, and the students basically work on their own. It is possible to supplement these non-contiguous activities by on-campus tutorials, lectures, laboratory work, counselling sessions and other face-to-face interaction with tutors and fellow-students. This is regarded as essential in some systems, as marginal in others.

Distance education mainly belongs to adult education, but special forms of supervised distance study have been developed for primary and secondary education in sparsely inhabited areas. Distance education is usually a cost-effective type of education which compares favourably with conventional study.

Distance education as related to teaching and learning in general

Ripley Sims, who has contributed a valuable study of distance-education processes, has found one clear border line between distance education (which he calls correspondence education) and conventional education. The basic difference, he says, is in the means of communication:

In the contiguous learning environments, communication is personal and face-to-face; in the non-contiguous environments communication may be personal and face-to-face for limited periods of time, but it is largely written, mechanical, electronic or some other means of communicating at a distance.....Learning is fundamentally an individual process and each person enters the process with techniques and levels of achievement uniquely his own. The method of correspondence study provides simultaneously an educational device for individualization in three distinct senses - student ability, variety of course offerings and flexibility for time and place of study.

Otto Peters, who is also concerned with what constitutes the basic difference between distance education and conventional education, has developed a consistent view of distance education as an industrialised form of teaching and learning. On his approach see Section 2.

Seven models of learning and teaching influential in general educational work, among them such extremes as on the one hand Skinner's behaviour-control model, on the other hand Roger's model for facilitation of learning, have been studied by Baath with a view to finding out to what extent they are applicable to distance study.

For each of the models Baath has investigated its general applicability to distance study, the implications for the development of course material, for non-contiguous two-way communication and for the supplementing of this

two-way communication by face-to-face contacts. Further, he has analyzed some special relations between these various models and distance study (Bååth 1979).

This study is important in that it expressly relates generally accepted principles of teaching and learning to distance education. It is a useful basis for further theoretical and practical work.

Delineating the concept of distance education

In the 1970s some fruitful attempts have been made to stake out the discipline of distance education. This applies to a process model developed by Delling featuring eight dimensions of distance education (society, the student, the distance, the information carrier, the study aim, the study matter. the learning result and the supporting organisation), by means of which it should be possible to describe all distance-education processes (Delling 1971), and to Graff's cybernetic approaches based on decision theory which, however, lead to the conclusion that the great problems are to be found 'beyond the calculation'.

My German monograph on distance education as a scholarly discipline surveys various theoretical approaches, among them my own theory of the guided didactic conversation, suggests a systems description and tries to pin-point the tasks of this academic discipline. Its theoretical function is to understand and explain what occurs in distance education. 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 applications. The discipline of distance education would thus meet Popper's dictum that the task of scholarship is on the one hand theoretical, to bring about explanation, and on the other hand practical, to provide for application of technology.

At the beginning of the 1980s three new important contributions have been made by Desmond Keegan, Hilary Perraton and David Sewart to the discussion of the character and essence of distance education. The three papers concerned are reprinted in this section. They illuminate the present debate and views on the concept of distance education. Keegan's paper has caused a discussion in the Australian journal Distance Education, in which it was published. There John Baath questions whether two of the alleged characteristics of distance education listed by Keegan are really typical. This objection concerns the inclusion of occasional face-to-face meetings and the participation in an industrialized form of education under the main elements of distance education. Baath points out that high-quality distance education can be provided - and sometimes is provided - ent-

irely at a distance in courses where there is no possibility of additional face-to-face meetings. He further argues that although most distance teaching can be characterised as industrialised teaching, there certainly are forms of distance education - e.g. a number of small-scale projects at the university level - that cannot be described in this way but rather as teaching of a 'handicraft' type.

The two contributions by Perraton and Sewart are of a different character. Perraton lists fourteen relevant statements on the characteristics of distance education representing external and internal influences, and Sewart discusses the theory and practical experience between the basic components of distance education, the course package and student support.

The papers by Keegan, Perraton and Sewart reprinted in this section reflect present-day awareness of the necessity to attain some sort of agreement on what can be called the philosophy of distance education. Charles Wedemeyer engages in this discussion in his comprehensive new book Learning at the back-door (1981), which analyses the conditions, tasks and procedures of 'non-traditional' learning. My book of 1981, Status and trends of distance education, reflects the same tendency by devoting one chapter to the distance-study concept and another to the philosophy of distance education.

There seem to be at least two different schools of thought on distance education, one stressing individual study and individual, non-contiguous tutoring on the basis of course materials produced for large groups of students, the other aiming at parallelism with resident study and usually including class or group teaching face-to-face as a regular element. Whereas the former represents the type of industrialisation leading to rationalisation and economy of quantity discussed by Peters and considers distance education to be basically different from face-to-face eduation, distance education is to the latter merely a form of distribution for which even the same tutor-student ratio for distance study and on-campus study is considered acceptable and even advantageous. The former represents a large-scale approach of the Open University and traditional correspondence school types, the latter a small-scale approach, for which the Australian University of New England can be regarded as a prototype (Smith 1979). In Sweden, which has more than eighty years' favourable experience of the large-scale type of distance education, a successful application of the small-scale type now occurs at the universities (Willen 1981). The Canadian University of Waterloo cassette-teaching system, which addresses classes rather than individuals, is a modified application (Leslie 1979).

- Baath, J.A. (1979) Correspondence education in the light of a number of contemporary teaching models. Malmö: LiberHermods
- Baath, J.A. (1980) Postal two-way communication in correspondence education.
  London: Gleerup
- Baath, J.A. (1981) On the nature of distance education. Distance Education 2, 2, pp. 212-219
- Holmberg, B. (1978) Fernstudiendidaktik als wissenschaftliches Fach. Hagen: FernUniversität, ZIFF
- Holmberg, B. (1981) <u>Status and trends of distance education</u>. London: Kogan Page
- Leslie, J.D. (1979) The University of Waterico model for distance education.

  <u>Canadian Journal of University Continuing Education</u> VI, 1, pp. 33-41
- Peters, O. (1971) Theoretical aspects of correspondence instruction.

  In: MacKenzie, O. & Christensen, E.L. (eds.), The changing world of correspondence study. University Park: Pennsylvania State University Press
- Peters, O. (1973) <u>Die didaktische Struktur des Fernunterrichts. Untersuchungen zu einer industrialisierten Form des Lehrens und Lernens.</u> Tübinger Beiträge zum Fernstudium 7. Weinheim: Beltz
- Popper, K. (1972) Conjectures and refutations. The growth of scientific knowledge. London: Routledge & Kegan Paul
- Sims, R.S. (1977) An enquiry into correspondence education processes:

  Policies, principles and practices in correspondence education
  systems worldwide. (unpublished NOCE-UNESCO report)
- Smith, K.C. (1979) External studies at New England. Annudale, WSW: The University of New England
- Wedeneyer, C. (1981) Learning at the back door. Reflections on non-traditional learning in the lifespan. Madison, Wis.: The University of Wisconsin Press
- Willen, B. (1981) Distance education at Swedish universities. Uppsala: Almqvist & Wiksell International

### ON DEFINING DISTANCE EDUCATION

Desmond J. Keegan

The term 'distance education' covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefit from the planning, guidance and tuition of a tutorial organisation.

(Holmberg, 1977:9)

Distance education is education which either does not imply the physical presence of the teacher appointed to dispense it in the place where it is received or in which the teacher is present only on occasion or for selected tasks.

(Loi 71.556 du 12 juillet 1971)

Distance teaching/education (Fernunterricht) is a method of imparting knowledge, skills and attitudes which is rationalised by the application of division of labour and organisational principles as well as by the extensive use of technical media, especially for the purpose of reproducing high quality teaching material which makes it possible to instruct great numbers of students at the same time wherever they live. It is an industrialised form of teaching and learning.

(Peters, 1973:206)

Distance teaching may be defined as the family of instructional methods in which the teaching behaviours are executed apart from the 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.

(Moore, 1973:664)

### Introduction

The growing literature on distance education contains many

complaints about the lack of unanimity on the terminology used in the field. This is especially true of the English-speaking world where each of the following terms is used extensively: correspondence study, home study, independent study, external studies, distance teaching and distance education.

There is also confusion about the place of distance education within education as a whole and whether it is identical to or to be differentiated from such areas as correspondence education, non-traditional education, off-campus education and open learning.

The need for more theoretical analysis (Baath, 1978) and for an intellectualisation of distance education recurs from time to time. Moore (1973:661), for instance, writes as follows:

As we continue to develop various non-traditional methods for reaching the growing numbers of people who cannot, or will not attend conventional institutions but who choose to learn apart from their teachers, we should divert some of our resources to the macrofactors: describing and defining the field, discriminating between the various components of this field, identifying the critical elements of the various forms of learning and teaching, in short, building a theoretical framework which will embrace this whole area of education.

This article addresses the questions of terminology, definition and identification in an effort to contribute to the theory of distance education. The method used is an analysis of generally accepted definitions in an attempt to highlight what can be regarded as essential elements of any definition. A presentation of what can and what cannot be regarded as distance education follows and a concluding section suggests that 'distance education' is the most satisfactory solution to the problem of terminology.

There are some educators who feel that terminology is unimportant and that there is little need to divert resources for analysis. 'Let's all do more of it without worrying too much about what it is' is not really a caricature of some distance educators. This article does not subscribe to such views. Some of the reasons for urgent attention to a theoretical analysis of distance education will become apparent from the discussion of Peters' definition in the section which follows.

### Four definitions

It is easier to devise a definition than to accept someone else's. It is not the purpose of this study to devise yet another definition of distance education but to highlight