

The Encyclopedia of Comparative Education and National Systems of Education

Edited by

T Neville Postlethwaite

Advances in Education

Pergamon Press

THE ENCYCLOPEDIA OF
COMPARATIVE EDUCATION
AND
NATIONAL SYSTEMS OF
EDUCATION

Edited by

T. NEVILLE POSTLETHWAITE

University of Hamburg, FRG

PERGAMON PRESS

OXFORD · NEW YORK · BEIJING · FRANKFURT
SÃO PAULO · SYDNEY · TOKYO · TORONTO

U.K.	Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, England
U.S.A.	Pergamon Press, Inc., Maxwell House, Fairview Park, Elmsford, New York 10523, U.S.A.
PEOPLE'S REPUBLIC OF CHINA	Pergamon Press, Room 4037, Qianmen Hotel, Beijing, People's Republic of China
FEDERAL REPUBLIC OF GERMANY	Pergamon Press GmbH, Hammerweg 6, D-6242 Kronberg, Federal Republic of Germany
BRAZIL	Pergamon Editora Ltda, Rua Eça de Queiros, 346, CEP 04011, Paraíso, São Paulo, Brazil
AUSTRALIA	Pergamon Press Australia Pty Ltd., P.O. Box 544, Potts Point, N.S.W. 2011, Australia
JAPAN	Pergamon Press, 5th Floor, Matsuoka Central Building, 1-7-1 Nishishinjuku, Shinjuku-ku, Tokyo 160, Japan
CANADA	Pergamon Press Canada Ltd., Suite No. 271, 253 College Street, Toronto, Ontario, Canada M5T 1R5

Copyright © 1988 Pergamon Press plc

Based on material from *The International Encyclopedia of Education*, first published 1985, with revisions and updated material.

All Rights Reserved No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the publishers

First edition 1988

Library of Congress Cataloging in Publication Data

The Encyclopedia of comparative education
and national systems of education
Includes bibliographies }
1 Comparative education. 2 School
management and organization 3 Education
and state I Postlethwaite, Neville
LB43 E53 1988 370 86-9346

British Library Cataloguing in Publication Data

The Encyclopedia of comparative education
and national systems of education
1 Comparative education
I Postlethwaite, T. Neville
370 19'5 LC132
ISBN 0-08-030853-8

*Computer data file designed and computer
typeset by Page Bros (Norwich) Ltd.*

*Printed in Great Britain by A. Wheaton & Co. Ltd.,
Exeter*

Preface

This *Encyclopedia* is in two parts. The first part presents a series of articles about comparative education. The second part presents descriptions of 159 different systems of education.

The purpose of this preface is to offer a background against which the contents of the two sections of the *Encyclopedia* can be viewed. It begins by presenting a definition of comparative education, then continues with a brief sketch of historical stages in comparative education, an outline of the major aims that comparative education seeks to achieve, a scheme for categorizing the content of the field, a listing of articles composing Part 1 of the *Encyclopedia*, and an explanation of the organizational plan for each of the 159 articles about systems of education that comprise Part 2.

1. Defining Comparative Education

Strictly speaking, to “compare” means to examine two or more entities by putting them side by side and looking for similarities and differences between or among them. In the field of education, this can apply both to comparisons between and comparisons within systems of education. In addition, however, there are many studies that are not comparative in the strict sense of the word which have traditionally been classified under the heading of comparative education. Such studies do not compare, but rather describe, analyse or make proposals for a particular aspect of education in *one* country other than the author’s own country. The Comparative and International Education Society introduced the word “international” in their title in order to cover these sorts of studies.

The term “education” normally embraces all forms of planned formal education from preschool through university as well as planned nonformal and adult education, and this is the definition that has been used for the purpose of this *Encyclopedia*.

2. A Brief Sketch of Historical Stages in Comparative Education

Noah and Eckstein (1969) have traced the development of comparative education since the time of Xenophon. They detected five phases of comparative education.

The first phase they labelled “Traveller’s tales”, a term that refers to the “oral reports” as exemplified by Greeks and Romans, and later by Marco Polo, and Alexis de Tocqueville, showing how they commented on the education of young persons who they observed as they journeyed in foreign parts.

The second phase emerged about the beginning of the 1800s. This involved the systematic collection of data about education in different countries. Marc Antoine Jullien was one of the first persons to think of collecting data systematically. Indeed, he constructed a lengthy questionnaire although it was, in the end, never used. Victor Cousin from France, John Criscom from the United States, Matthew Arnold from England, and Leo Tolstoy from Russia all visited other countries and observed how education was organized and conducted, and they identified the main tenets of the

philosophy of education in the systems they observed. It was during this phase that certain problems were identified which included problems in comparing terminology and in gathering valid and reliable data, and the feasibility of borrowing ideas from one country and implanting them in another. Tolstoy, in particular, had some harsh words to say about the notion of “borrowing” which he rejected totally (Tolstoy 1861).

In connection with the British Government’s Bryce Commission on Education in 1894 and 1895, Sir Michael Sadler of England visited Germany and wrote notes on his observations in schools. His article “How far can we learn anything of practical value from the study of foreign systems of education?” (1900) makes interesting reading. Sadler did not believe that particular elements or methods in a foreign system of education were “detachable details”. However, he did see the sympathetic and scholarly study of the working of foreign systems as resulting in the researcher being better fitted to study and understand their own system.

The third phase, namely international cooperation, overlapped with the second (borrowing). Both Jullien and Sadler can be regarded as the initiators. International cooperation is still strong in the 1980s as witnessed by the work of the International Bureau of Education with its publication of the *International Yearbook of Education*, by the work of UNESCO with its publication of internationally based educational statistics and its reports on various aspects of education, and by the work of the Organisation for Economic Cooperation and Development (OECD), with its country reviews and so on.

The fourth phase, of which Sadler can also be regarded as the initiator, consisted of an effort to identify forces influencing the development of systems of education or of specific components of an educational system. Emphasis was placed in particular on a more analytic understanding of the relationship between society and education. Other persons before Sadler (such as Arnold in England, Dilthey in Germany, Harris in the United States, and Levasseur in France) had intimated the notions of this more analytic approach, but it was Sadler’s writings that first revealed new prospects of studies in comparative education, both in terms of their comprehensiveness (taking into account a greater number of forces influencing educational development), and in terms of their great analytical and explanatory powers.

From 1900 to 1960 various authors—now famous names in comparative education—conducted studies attempting, usually through speculation, to identify the social and political causes responsible for educational practices. Kandel (1933) traced the connections between the schools of Europe and the political systems in which they were embedded. Schneider (1947) and Hans (1949) attempted to identify the broad cross-national historical and social forces that determine the various shapes of national systems of education in relation to the development of European civilization. They all attempted to relate the variations in forces in societies to differences in their schools. This kind of work—characterized by a broad historical, social, and political study of changes in, and differences between, systems of education—still represents a major effort in the mid-1980s.

The fifth phase began to emerge in the post-Second World War era and burgeoned in the 1960s and 1970s. This phase saw the use of social-science methods and quantitative and qualitative data to examine the effect of various factors on educational development. The studies carried out using these methods took the form of estimating coefficients indicating the strength of effect of one variable or construct on other constructs relative to the strength of other variables. In all social science research there are the problems of measurement error, of sampling error, and of selecting the appropriate form of statistical analysis for disentangling the relative effects of factors postulated as influencing

a particular outcome or practice in education. There are those who reject an empirical approach to education because "it is attempting to quantify the unquantifiable". But the obvious danger in *not* using an empirical approach is that one is left in the realm of speculation about the relative effect of variables which are intercorrelated. Social scientists would argue that although their approach has its imperfections, it is more likely that progress can be made with the use of model (theory) testing than without it.

Today there are still two major approaches in comparative education—the one using the empirical paradigm and the other using historical and hermeneutic approaches. However, the picture has become more complicated in that within the social sciences there has been an upsurge of studies using qualitative data accompanied by a "pseudo" debate on the relative merits of quantitative versus qualitative studies. The word "pseudo" has been used because it is not really a matter of one approach versus another since most studies require a mixture of both. Indeed, from the plethora of approaches available, the comparative educator must always select the most appropriate approach or combination of several approaches in order to answer the particular questions under investigation.

3. *Major Aims of Comparative Studies*

When well done, comparative education can deepen our understanding of our own education and society, it can be of assistance to policy makers and administrators, and it can be a valuable component of teacher education programmes. As Noah (1983 p. 4) put it, "comparative education can help us understand better our own past; locate ourselves more exactly in the present; and discern a little more clearly what our educational future may be". These contributions can be made through work that is primarily descriptive as well as through work that seeks to be analytic or explanatory, through work that is limited to just one or a few nations, and through work that relies on nonquantitative as well as quantitative data and methods.

There would appear to be four major aims of comparative education.

(a) *Identifying what is happening elsewhere that might help improve our own system of education.* One example of this would be identifying the principles involved in an innovation such as "mastery learning" which has such success in the Republic of Korea, and grasping the procedures necessary to implement the mastery principle.

Another example might be finding out how various nations try to ensure certain minimum standards of knowledge, skills, and attitudes in mass education; what principles are involved in what they do; in what way the procedures they use for each principle may have to be modified to fit another system; and, ultimately, whether it is worth trying to experiment with this innovation in other systems.

Or, to take another problem which is being discussed in the Federal Republic of Germany, how can high quality research and excellence of scholarly work be achieved when one has moved from an elite university system to a mass university system? Many countries have experienced this shift in tertiary education. How have they dealt with the problem of ensuring high quality research work? What solutions have been attempted in other countries? What can the Federal Republic learn from them in developing its own solutions?

(b) *Describing similarities and differences in educational phenomena between systems of education and interpreting why these exist.* There are of course, similarities and differences between systems of education—in goals, in structures, in financing mechanisms, in the scholastic achievement of age groups, and so on—which if correctly

analysed could reveal important information about the systems being compared. Indeed, it can also be useful to analyse differences and similarities between subparts of a system. For instance, Prais (1983, 1985) examined differences in mathematics achievement between the bottom half of the distribution of students in England and the Federal Republic of Germany. This comparison was undertaken because it was believed by the English that *Real-* and *Hauptschule* education was better in Germany than its equivalent in England, and the researcher wanted to find out if this was true or not. Basically the comparison showed that the bottom half of the German distribution was higher than the English. However, when the top half of the distribution was compared in Science (Comber and Keeves 1973), the English students did better than the German ones. Thus, in this case, the investigators found it useful to compare not only general averages, but also the averages of subsections of the distribution of students. Having established these facts, a second question was then asked about the concomitants of such achievement in Germany, if indeed the German system was better.

Another book, (Steiner 1981), presented changes in mathematics curricula between 1960 and 1980 in a series of countries and looked for similarities and differences in not only the curricula profiles but also in the reasons given for the differences. This book opened the possibility for any of the countries dealt with in the study to compare their mathematics curriculum with that of any of the other countries. Thus England, for instance, could perhaps learn from such a comparison in view of its apparent lower achievement at the bottom half of its distribution.

Studies of these types may describe not only inputs to and processes within systems but also the philosophy of systems (for example such catch words as equality, democratization, Arabization, and the like) and outcomes (achievement in many subjects). The questions of why certain countries have particular philosophies and what implications these have in terms of educational outcomes, are questions of both major academic and practical interest.

(c) *Estimating the relative effects of variables (thought to be determinants) on outcomes (both within and between systems of education).* Within education there is a great deal of speculation about what affects what. How much evidence, for example, do the people who teach methods at teacher-training establishments have about the effectiveness of the methods they promulgate? What about home versus school effects on outcomes? Under what conditions and for what sorts of outcomes are they different? If we can agree on a definition of, say, equality of education (do we mean, for example, access to education, promotion through the system, treatment, achievement, or all of them?) what are the major societal, political, economic, and educational determinants of achieving such equality? For instance, when 10 eminent professors of education once were asked what, to their mind, was the most important school factor determining between-school differences in a country, among them they provided eight different answers.

It is only through systematic, analytic study that one can finally assert that factors *A* and *B* have a major impact, factors *C* and *D* a moderate impact, and factors *E*, *F* and *G* have no impact. During the 1960s there were many proponents of language laboratories for improving the acquisition of a foreign language. And yet, in a study conducted in 1971 on the learning of French as a foreign language in eight countries, the carefully amassed and analysed data showed that there was no difference in achievement in French between those students exposed to language laboratories and those who had not been exposed. Thus, it was a myth that language laboratories as used in 1971 had an effect on the learning of any of the language skills studied.

(d) *Identifying general principles concerning educational effects.* Let us take the hypo-

Table 1

Possible patterns of relationships. A hypothetical set of significant relationships with an outcome

Variables	Systems of education						
	A	B	C	D	E	F	G
1	\	\	\	\	\	\	\
2	—	—	—	—	—	—	—
3	\	—	—	\	—	—	\

thetical example in Table 1 and assume that a model has been postulated whereby certain variables are held constant before we examine the relationship between other variables (in this case 1, 2, and 3) and the outcomes. The resultant relationship will often be estimated by a regression coefficient. In Table 1, A to G represent different systems of education—the universe of study in a particular project. Variable 1 is significant in all systems, variable 2 in no system, and variable 3 is sometimes significant and sometimes not. In the first case it is a determining factor in all systems, in the second it never is, and in the third it is in some systems and not in others. Thus, for the systems A to G we seem to have general (universal is too grand a term) principles for variable 1 and 2 but not for 3. A question of interest to comparative education is, of course, why variable 3 is sometimes important and other times not.

From the foregoing examples we can see that comparative studies can have various aims. The four illustrative aims discussed above are representative of much of the body of comparative education literature.

4. *Categorizing the Content of Comparative Education*

There are numerous ways to categorize the content of comparative education; the categorization presented below illustrates one set of topics that cover much of the field of comparative education.

(a) *Country studies*. Both individual authors and institutions have published books on country systems of education. Sometimes several aspects of education are examined, rather like the description of national systems of education in Part 2 of this *Encyclopedia*, thus producing what Germans have traditionally called *Auslandspädagogik*.

(b) *Themes within and between countries*. There has been a major move since the 1960s to shift away from country system description in order to examine themes in a national or international context. Some of the major themes identified are:

(i) *Economics of education*. Subthemes within this area include: financing of education, cost-benefit in education employment, earnings and education, economic development and education, educational expenditures, educational dropouts and wastage, female labour-force participation and education, economic performance and education of immigrants, income distribution and education, labour market theories and education, labour quality and education, on-the-job training, rates of return, sex earnings differentials, skill excess and shortage, economics of teacher supply, and youth unemployment and education.

(ii) *Education planning and policy*. Here the major subthemes are: decentralization, demography in planning, dependency, equality, ideology in educational policy, policies for the education of immigrant children, multilateral and bilateral aid to education in third world countries, school language policies, legitimacy in educational policy, literacy

and numeracy, modernization and education, nonformal education, educational planning and social change, planning teacher supply, planning vocational education, history of educational planning, educational reform policies, regional disparities, school mapping, and training abroad as well as some of the subthemes mentioned under the economics of education.

(iii) *Primary and secondary schooling.* Many publications deal with the structure and organization of primary and secondary schooling (including vocational education), focusing on such topics as enrolment ratios, the administration and financing of schools, special provisions for handicapped and gifted students, the teacher pre- and inservice training for these schools, curriculum development, and the policy of promotion and certification. Beginning in the 1960s there have been studies on cognitive learning and achievement and the determinants of such achievement. The most notable set of studies are those of the International Association for the Evaluation of Educational Achievement (IEA) which undertook cooperative "standardized" studies using the same measuring instruments in up to 38 countries in mathematics, reading comprehension, literature, Science, French and English as foreign languages, and civic education (Postlethwaite and Lewy 1979). The IEA currently is involved in further similar studies which will appear in the latter half of the 1980s.

(iv) *Preschool education.* The work in this area has been largely descriptive although some rudimentary attempts have been made at estimating the effects of different types of preschooling on children's later school success.

(v) *Teaching and teacher education.* Many studies have been done describing teacher education in one or more systems. Among these, one major comparative study of teaching (Dunkin and Biddle 1974) has appeared and two new international studies are underway: the effect of teacher instructional and management variables on growth in mathematics achievement in 5th grade, and the effect of various methods of teaching particular mathematics topics in 7th and 8th grade (IEA 1983). The themes most commonly treated by examining within-country data relative to this topic are: architecture of instructional spaces, class size, school size, classroom climate, classroom management, competition in the classroom, content coverage (or opportunity to learn), modes of evaluating teaching, compulsory versus optional inservice training of teachers, the intents and operationalization of various teaching methods (e.g. direct instruction, discussion, group work, mastery learning, and so on), homework, the role of laboratory schools, micro-teaching, use of paraprofessionals, paradigms for research on teaching, reading readiness, questioning techniques, teaching of minority groups, teacher centres, and so on.

(vi) *Human development.* One good example of a comparative education book in human development is *Comparing Theories of Child Development* (Thomas 1985) in which 23 theories of child development are described and compared. Otherwise, there are country studies (e.g., *Multilingualism in the Soviet Union*, Lewis 1972) or attempts to examine themes by pulling together experiences from various countries. Such themes can include attitude development, attitude differences, creativity, delinquency, concept formation, adolescence, language acquisition, moral development, self-concept development, sex characteristics and roles, and the effects of television on children.

(vii) *Curriculum.* Here the major studies inspect what is in the curriculum (in terms of general or specific educational objectives) in specific subject areas and examine similarities and differences (e.g., Steiner 1981). Given evidence from a series of studies about opportunity to learn influencing not only differences in achievement between countries but also within countries, several publications have dealt with this aspect of curriculum. A number of studies in developing countries have shown the importance of

adequate textbook supply, and this has focused attention on the production, distribution, and availability in the classroom of curriculum textbooks and other materials. The studies on the differential effect of different curricula frequently appear in journals such as *Studies in Educational Evaluation*. The work of various national centres of curriculum development is also reported (see, for example, the publications of the African Curriculum Organization or the Asian Programme for Innovation and Educational Development from the UNESCO Regional Office in Asia).

(viii) *Educational statistics*. The work of UNESCO, OECD, and the World Bank is most notable in this area. These institutions have examined enrolments, dropouts, and the retentivity of systems. In particular, these organizations use their data to extrapolate 10 to 20 years hence the enrolment ratios expected and thus estimate the number of teachers required and so on. It is no easy task to collect valid, reliable, and comparable data in countries but significant work of this type has been accomplished by the agencies mentioned above as well as by the Asian Development Bank, the African Development Bank, the Organization of American States, and individual authors, such as Johnstone (1980) in his work on educational indicators.

(ix) *Higher education*. Subthemes here focus on the historical development of higher education, the structure of higher education, the transfer of academic models, curriculum, student unrest, student loans, enrolment expansion, and, more recently, the identity crisis of schools of education.

(x) *Nonformal education*. The major nonformal emphasis has been on assessing "successful, innovative and transferable" programmes. Coombs and his associates (Coombs et al. 1973, Coombs and Ahmed 1974) have published significant work in this area. A further example is the first major study on 74 programmes in Africa (Sheffield and Diejomaoh 1972). Distance education (McAnany et al. 1983) also often comes under the heading of nonformal education.

(xi) *Adult education*. Subthemes in adult education deal partly with nonformal education as well as with the concepts and practices of lifelong and recurrent education, literacy and numeracy studies (including mass education campaigns), education for minority groups (handicapped, those in prison), legislation, the genesis of policies, and the translation of policies into programmes, participation and motivations for participation (especially among women), roles of various religious and voluntary bodies in adult education, community education, education in the military, lifespan education, the role of museums and libraries, education for leisure, and paid educational leave.

The above categories are by no means exhaustive. For example, some work in vocational, industrial, and business education has been omitted, as has the fast-growing field of comparative sport and physical education (see Haag 1987). In addition, the foregoing scheme does not include the theme of the political influences in education, although many of the authors dealing with the themes categorized above do attempt to examine the influence of political, economic, and social factors on the particular education phenomenon with which they are dealing.

5. Contents of the Encyclopedia

5.1 Part I: An Overview

From the listing given above of the various areas in which national or international studies are undertaken, it is obvious that a one-volume encyclopedia cannot have entries on every area listed. Rather, the editor has made a selection of aspects so that readers

would receive an overall impression of the field of comparative education and would gain insight into some major areas. The *Encyclopedia* has accordingly been divided into two parts: Part 1 groups together a number of articles dealing with various aspects of comparative education, while Part 2 is devoted to articles presenting descriptions of the educational systems of 159 countries.

The articles in Part 1 are presented in three clusters. The first concerns the history, concepts, methods, and approaches in comparative education. In other words, what is comparative education, how did it evolve, and how does it work? The late William Brickman of the University of Pennsylvania traces the development of comparative education through the centuries up to the present time. Max Eckstein of the City University of New York deals with many of the economic and political concepts and theories that have become part of comparative education from the end of the Second World War, but particularly in the 1960s. Both he, and Harold Noah in his article on methods, are at pains to stress there is usually no one 'right' method, but that a combination of methods are required to test specific hypotheses or theories. Noah points to how methods are changing, though always towards better descriptions, analyses, and generalizations of and about education. This first cluster concludes with an article by Kelly and Altbach of the State University of New York at Buffalo. It is entitled *Alternative Approaches in Comparative Education* and examines some of the trends in ways of examining education comparatively since 1977: within versus between nation comparisons; qualitative and quantitative approaches; some of the challenges being made to structural functionalism; and some emerging issues. This first cluster contains the type of content that is presented in all basic university courses on comparative education.

The second cluster contains five general articles on comparative education. The five themes—comparative statistics, educational policy, economics of education, area studies, and documentation were chosen because they are currently of particular general interest. "What can you compare with statistics?", or "is one attempting to compare the incomparable?", are questions often raised. "What is the study of educational policy—is it of any use?" The economics of education is said to be a "hard" subject; what are comparative studies in the economics of education? One could have selected other social science disciplines, but the economics of education is "in" in the mid-1980s. "Area studies" is a buzz word in the United States and an article has been included. Finally, for new students, learning about documentation in comparative education is a must.

The first article deals with comparative statistics in education and is by Juan Porras-Zúñiga of UNESCO, Paris. The author spends his life producing statistics about education in different nations and in his article he shows the problems that have to be overcome and the uses of comparative data, and he presents examples of trend data and projections. The second article is by Fred Coombs from the University of Illinois who presents the young field of comparative research on educational policy and indicates the different varieties of policy research undertaken. Luisa Gómez Castellanos of Teachers College, Columbia University describes the types of studies undertaken in the economics of education, the contribution of education to economic growth, the analyses undertaken of the demand for manpower, cost-benefit analyses, financing of education, internal efficiency and educational quality, and educational expansion and social equality. Philip Foster from the State University of New York at Albany explains what is meant by area studies and, finally, Michel Debeauvais of the University of Paris presents a remarkable overview of the documentation sources and networks in existence.

The third and final cluster includes articles on those aspects of educational systems where major studies have been undertaken. So, preschool education, primary and

secondary schooling, vocational education, teaching and teacher education, higher education, adult and lifelong education and nonformal education were selected. These represent the major levels of education in any system. In reading the articles in this cluster the reader must bear in mind that comparative education was defined as embracing both national studies and strictly comparative studies. Martin Woodhead and David Weikart from the United States Open University of the United Kingdom and High/Scope Educational Research Foundation in the United States together present preschool studies. Murray Thomas from the University of California at Santa Barbara describes studies in primary and secondary schooling. Rainer Lehmann of Hamburg University in the Federal Republic of Germany deals with many different types of studies in technical and vocational education. Mike Dunkin from the University of Sydney in Australia examines comparative studies in teaching and teacher education—and they are relatively few. Indeed, he has concentrated a great deal on the studies of the International Association for the Evaluation of Educational Achievement which were not designed to examine either teaching or teacher education effects, but nevertheless Dunkin has gleaned some findings of interest. Philip Altbach has written a short overview of comparative studies in higher education. *Adult and Lifelong Education* is written by Colin Titmus of the University of London in the United Kingdom who depicts comparative studies in adult education as just beginning, except for the field of literacy eradication where much work has been done. Finally, Philip Coombs examines comparative studies in nonformal education, an exploding field since Coombs published his book *The World Educational Crisis* in 1968.

In looking at the authors selected to write the articles in these three clusters one is struck by how many are Americans or appear to be so. It should be pointed out that nearly all authors (a) were born in countries other than the country where they now reside; (b) speak at least two languages; (c) have worked in several countries; and (d) are very well known names in the field of comparative education.

In looking at the articles there would appear to be a dearth of truly comparative studies though there are many national or area studies. However, as Harold Noah has pointed out, truly comparative studies require large-scale international teamwork. This is 'difficult to establish, complicated and burdensome to administer, and costly to operate'. But, international teams are beginning to be established and one might expect many more comparative studies to be reported by the year 2000.

5.2 Part 2: An Overview

The purpose of the articles in Part 2 is to present short descriptive overviews of systems of education. They were not meant to be analytical or to enter into great detail on any one aspect of education. They were meant to allow a reader unfamiliar with the system of education in a particular country to have an immediate impression with the facility of a bibliography for more detailed study.

Two general principles were used by the editor in selecting authors and in defining the length of the entries. The first principle was that, where possible, an author should be from the country concerned. Such a policy yielded both advantages and disadvantages: an obvious advantage was that such authors usually had access to up-to-date (often unpublished) information on the system in the year of writing; a disadvantage was that the author, oftentimes a member of the educational system, might be unwilling to include points of criticism. The second principle was that the descriptions should vary in length according to the size of the country.

The Appendix to this preface presents a suggested outline—subtopic by subtopic—that was sent to all selected authors with the request that they try, as much as possible, to follow the outline. With the same general structure for each country description, it was felt that readers could make their own comparisons quickly and easily.

In general, authors adhered to the structure suggested, but not always. In most cases it was possible to find an author from the country itself, either through the author's personal contact or by writing to the Ministry of Education. Inevitably, however, some ministries never replied to the letters and, in these cases, other individuals were invited to be authors. Readers will recognize that where articles have been written by persons within the system of education there is, understandably, a tendency to look at their own systems of education less critically than might someone writing from a less involved perspective.

To the Editor's knowledge, this is the first time that descriptions of 159 systems of education have appeared in one volume and, for the most part, in a form which allows not only a quick overview of any one system of education but also a quick general comparison of major aspects of education in two or more countries.

These descriptions first appeared in the *International Encyclopedia of Education* (Husén and Postlethwaite 1985). Some have been completely rewritten where there has been a major change in the system. All authors were asked to update the entries and a significant number did so.

Bibliography

- Comber L C, Keeves J P 1973 *Science Education in Nineteen Countries*. John Wiley, New York
- Coombs P H 1968 *The World Educational Crisis: A Systems Analysis*. Oxford University Press, Oxford
- Coombs P H, Ahmed M 1974 *Attacking Rural Poverty: How Nonformal Education Can Help*. Johns Hopkins, Baltimore and ICED, Essex, Connecticut
- Coombs P H, Prosser R C, Ahmed M 1973 *New Paths to Learning: For Rural Children and Youth*. ICED, Essex, Connecticut
- Dunkin M J, Biddle B 1974 *The Study of Teaching*. Holt, Reinhart and Winston, New York
- Eckstein M A, Noah H J (eds.) 1969 *Scientific Investigations in Comparative Education*. Macmillan, Toronto
- Haag H, Bennett B (eds.) 1986 *Proc. 4th Int. Symp. Comparative Physical Education and Sport*, April 29–May 5, 1984
- Haag H, Kayser D, Bennett B L 1987 *Comparative Physical Education and Sport*, Vol. 4. Human Kinetics Publishers, Champaign, Illinois
- Hans N 1949 *Comparative Education: A Study of Educational Factors and Traditions*. Routledge and Kegan Paul, London
- Husén T, Postlethwaite T N (eds.) 1985 *International Encyclopedia of Education*, Vols 1–10. Pergamon, Oxford
- International Association for the Evaluation of Educational Achievement (IEA) 1986 *I.E.A.: Activities, Institutions and People*. Pergamon, Oxford
- Johnstone J N 1980 *Indicators of Educational Systems*. UNESCO, Paris
- Kandel I L 1983 *Comparative Education*. Houghton Mifflin, Boston, Massachusetts
- Lewis E G 1972 *Multilingualism in the Soviet Union*. Mouton, Paris
- McAnany E G, Oliveira J B, Orivel F, Stone J 1983 Distance education: Evaluating new approaches in education for developing countries. *Eval. Educ.* 6(3): 289–376
- Noah H J 1983 *The Use and Abuse of Comparative Education*, Inaugural Lecture as Gardner, Cowles, Professor of Economics and Education, November 1st 1983. Teachers College, Columbia University, New York
- Noah H J, Eckstein M A 1969 *Toward a Science of Comparative Education*. Macmillan, Toronto
- Peterson A D C 1952 *A Hundred Years of Education*. Collier, New York
- Postlethwaite T N, Lewy A 1979 *Annotated Bibliography of IEA Publications (1962–1978)*. International Association for the Evaluation of Educational Achievement (IEA), Stockholm
- Prais S J 1985 What can we learn from the German system of education and vocational training? In: Worswick G D M (ed.) 1985 *Education and Economic Performance*. Gower, Aldershot
- Prais S J, Wagner K 1983 Schooling standards in Britain and Germany; Some summary comparisons bearing on economic efficiency, National Institute Discussion Paper No. 6. National Institute of Economic and Social Research, London
- Sadler M 1900 How far can we learn anything of practical value from the study of foreign systems of education? Reprinted in: *Comp. Educ. Rev.* 7

- Schneider F 1947 *Triebkräfte der Pädagogik der Völker*. Otto Müller, Salzburg
- Sheffield J R, Diejomaoh V P 1972 *Nonformal Education in African Development*. African American Institute, New York
- Steiner H G 1981 Comparative Studies of Mathematics. *Materialien und Studien*, No. 19. Institut der Didaktik der Mathematik, Bielefeld
- Thomas R M 1985 *Comparing Theories of Child Development*. Wadsworth, Belmont, California
- Tolstoy L N 1861 On population education. Jasnaia Poliana I. In: Hans N 1963 *The Russian Tradition in Education*. Routledge and Kegan Paul, London
- Ulich R 1961 *The Education of Nations: A Comparison in Historical Perspective*. Harvard University Press, Cambridge, Massachusetts

May 1988

T. Neville Postlethwaite
University of Hamburg, FRG

Contents

Preface

xvii

Part I Comparative Education

(a) History, Concepts and Methods

History of Comparative Education 3
W. W. BRICKMAN[†]

Concepts and Theories in Comparative Education 7
M. A. ECKSTEIN

Methods in Comparative Education 10
H. J. NOAH

Alternative Approaches in Comparative Education 13
G. P. KELLY and P. G. ALTBACH

(b) General Comparative Education

Comparative Statistics in Education 21
J. PORRAS-ZÚÑIGA

Comparative Studies of Educational Policy 29
F. S. COOMBS

Comparative Studies in the Economics of Education 31
L. GÓMEZ CASTELLANOS

Area Studies in Comparative Education 40
P. FOSTER

Documentation in Comparative Education 41
M. DEBEAUVAIS

[†]deceased

(c) Major Aspects of Education Viewed Comparatively

Comparative Studies in Preschool Education M. WOODHEAD and D. P. WEIKART	49
Comparative Studies in Primary and Secondary Education R. M. THOMAS	52
Comparative Studies in Technical and Vocational Education R. H. LEHMANN	55
Comparative Studies in Teaching and Teacher Education M. J. DUNKIN	60
Comparative Studies in Higher Education P. G. ALTBACH	66
Comparative Studies in Adult and Lifelong Education C. J. TITMUS	68
Comparative Studies in Nonformal Education P. H. COOMBS	72

Part II National Systems of Education

Afghanistan D. D-F. LIN	79
Albania S. TEMO	81
Algeria M-D. CHABOU	84
American Samoa R. M. THOMAS	89
Angola A. GORHAM and R. DUBERG	92
Antigua M. MCLEAN	97
Argentina M. A. PETTY	101

Australia P. MCKENZIE	106
Austria W. CLEMENT	114
Bahamas M. MCLEAN	122
Bahrain S. ISSAN and D. J. DANIELS	125
Bangladesh E. SATTAR	128
Barbados A. LAYNE and L. G. ATHERLEY	131
Belgium P. VANBERGEN	135
Belize S. MUSA	142
Benin S. S. MCINTYRE	145
Bhutan N. RINCHHEN	147
Bolivia I. CLASSEN-BAUER	149
Botswana L. A. LOCKHART	153
Brazil E. BAUZER MEDEIROS	156
Brunei Darussalam C. T. STEGE	161
Bulgaria A. FOL	163
Burkina Faso J. T. BRADY	166
Burma D. D-F. LIN	168