

IMPROVING EDUCATIONAL QUALITY

A GLOBAL PERSPECTIVE

Edited by
David W. Chapman
and
Carol A. Carrier

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Part One

IMPROVING EDUCATIONAL QUALITY

Introduction: Improving Educational Quality in Developing Countries

David W. Chapman and Carol A. Carrier

One of the most severe challenges facing education systems in most countries today is how to meet demands for higher quality public education within increasingly severe national economic and fiscal constraints. Faced with severe economic pressures, many countries must find new fiscal resources (an economically unrealistic alternative), accept quality deterioration and continued inequity in access (a politically and ethnically unacceptable solution), or increase the efficiency with which educational resources are applied to the problems of instructional quality and equity of access (Windham & Wang, 1986; Chapman & Windham, 1986).

This book examines national-level strategy for improving the quality of education. It identifies and analyzes key interventions to improve educational quality. Strategies for selecting among those interventions are discussed and the major issues encountered in implementing those interventions are analyzed. The major thesis of the book is that a systems approach, as exemplified in instructional systems design technology, offers the most effective and efficient intervention for improving educational quality. A systems-based approach can work, however, only if sufficient attention is given to the motivation, knowledge, and behavior of the individuals within those systems on whose actions success of any intervention ultimately depends. Instructional systems design is based on a systems approach that recognizes that subsystems are interrelated and that changes to any one subsystem have consequences that impact

on other subsystems. Effective interventions are those that anticipate and simultaneously address key issues across several subsystems.

Many interventions intended to improve education quality have focused on improving a particular dimension of the educational experience—for example, teacher training, facilities construction, instructional supervision, or the provision of instructional materials. These interventions often fail because they do not recognize or address the interacting nature of these components. Specific components are treated as if they were disconnected from the larger context of interwoven pressures that characterize complex social systems. Other interventions have tried to address the multiple interacting factors, only to get bogged down in complex political, logistical, and coordination issues beyond the ability or resources of the project to address. The critical challenges for educators and program planners in implementing a systems approach is to identify the key subsystems that must be addressed and design programs that, on one hand, are feasible within the available resources and, on the other hand, can respond to the shifting and interrelated contexts in which such programs must necessarily operate.

Particular attention is given to the issues confronting educational quality improvement in the developing world. This focus is of particular importance since:

1. there is substantial evidence of serious declines in educational quality in many developing countries even at a time when massive donor assistance has been directed toward educational improvement;
2. developing countries are the focus of many of the large-scale instructional improvement activities. These large-scale projects often try to implement strategies for quality improvement that have not been fully tested on a large scale in more industrialized countries;
3. the volatility of social, economic, and political environments that characterize developing countries makes education quality improvement efforts a particularly complex challenge;
4. lessons from developing countries' experiences often have direct relevance for more developed countries. However, inadequate attention has been given to documenting those lessons as they have occurred in developing country contexts; and
5. the transfer of instructional systems design technology from developed to developing countries has fallen short of expectations because insufficient attention has been paid to contextual differences.

AUDIENCE

This book is designed for instructional designers, program planners, administrators, evaluators, and supervisory personnel who are con-

cerned with the design and implementation of programmatic interventions in education, particularly in international settings. It also is intended as a text for graduate students preparing for these types of positions; it is appropriate as a textbook for a variety of graduate-level international education courses. The book offers a global perspective—the principles and strategies discussed have wide application in both industrialized and developing countries.

OVERVIEW OF CHAPTERS

The book is composed of 14 chapters organized in two parts. Part One, consisting of 5 chapters, provides a general framework for formulating educational interventions to improve educational quality. Included in this section are discussions of investments that lead to student achievement, the use of efficiency as a criterion to judge the effects of educational investments, the ways in which instructional systems models enhance efficiency and educational quality, and the role that donors play in efforts to improve educational quality in developing countries. Part Two, consisting of 9 chapters, discusses a series of issues more specifically concerned with program implementation. These are addressed in three categories: (1) the teachers' role in quality improvement; (2) monitoring, evaluation, and data management; and (3) instructional delivery.

PART ONE: IMPROVING EDUCATIONAL QUALITY

In Chapter 1 the editors introduce the book, discuss the recent pressures on educational quality and the evidence of quality decline in both industrialized and developing countries, offer an overview of the chapters, and synthesize seven themes that emerge across the chapters.

In Chapter 2, Bruce Fuller reviews recent research on the factors related to student achievement in the Third World and draws a set of conclusions about what investments in education contribute to student learning. Evidence suggests that schools may exert a greater influence on achievement within developing countries compared to industrialized nations, after accounting for the effect of pupil background. However, much of the research on developing countries remains focused on material inputs. Less attention has been given to how material ingredients are actually mobilized and organized within schools and classrooms. He concludes that the provision of well-designed curricula and materials can be one of the most powerful interventions to improve students' achievement. At the same time, he argues for paying more attention to how teachers actually implement these materials in their individual classrooms. Fuller's chapter sets up the argument for the book by (a) identifying the range of interventions that have been advocated as improving

instructional quality, and (b) critically reviewing the research on the contribution of these interventions to student learning in developing countries.

In Chapter 3, Douglas M. Windham argues the growing importance of efficiency as a criterion in selecting and designing strategy to improve education. One of Windham's conclusions is that systematic instructional design can be a cost-effective intervention, given a series of considerations that he identifies. In building his argument, Windham addresses four areas that have often been the subject of disagreement between instructional design specialists and economists. First is the extent to which instructional costs and effects can be measured. He addresses the concern of many educators that economic analysis does not provide a sufficiently sensitive means for evaluating nonmonetary costs or subjective benefits. Second, he examines the transferability of instructional systems across the countries. Given the existence of a variety of successful instructional systems, can a country justify the expenditure of scarce funds for design of a new system unique to a particular cultural environment? Third, he examines the application of four forms of efficiency analysis to instructional development activities and concludes that cost-effectiveness analysis offers an efficiency measure that both instructional development specialists and economists can accept. Finally, Windham suggests a management approach that incorporates economists and instructional development specialists in a collaborative manner to help ensure that the contributions of both are provided in a timely and constructive way.

Robert M. Morgan, in Chapter 4, describes instructional systems design (ISD) as an efficient strategy for improving educational quality. His argument is that meaningful interventions must be addressed from a systems perspective, in which multiple interacting factors are simultaneously addressed. He traces the adoption of systems analysis as a planning and management tool in education and its eventual application to instructional development. Morgan suggests that the use of ISD in planning and developing educational programs can result in efficiency improvements that can fully justify the time and investment required. Equally important, he suggests that ISD provides a mechanism whereby efforts of developing countries to upgrade their educational program can be tailored to the special needs and resources of those countries, thereby avoiding unreflective duplication of educational patterns (and problems) from more industrialized nations.

Given the financial constraints being experienced by most developing countries, many of the resources for education quality improvement activities are provided by international donors. Many countries, particularly in Africa, show little or no development of their education system despite massive infusions of donor aid to education over the last 20

years. In Chapter 5, Joan M. Claffey examines this problem and suggests potential solutions. She reviews the reasons donors invest in educational development and, more specifically, the donor role in instructional improvement activities. Her analysis examines the problems experienced by recipient governments in planning, targeting, and managing donor assistance activities and, secondly, the problems experienced in coordination among donor agencies working in the same country. Lack of coordination can lead to a piecemeal and noncumulative—even competitive—approach. Where this has occurred, it has led to redundant or unnecessary investments in some areas and unmet needs in others. The pressures on both donor and recipient countries that lead to lack of coordination are important to understand if such competition is to be reduced.

Donor assistance may be misplaced because of the lack of a comprehensive national educational policy to provide a context for new programs. Even where donor assistance is well targeted, however, its impact has been too often wasted for lack of a workable implementation plan and inadequate attention to the capacity of the recipient country to sustain the initiative as external monies end. Claffey argues that these are considerations that can and should be addressed at the project planning stage. She argues that the donor investment strategy in education needs to emphasize greater donor–government and donor–donor collaboration, more appropriate forms of assistance, more attention to implementation strategy, and greater sustainability if meaningful educational improvements are to follow from external assistance to education.

PART TWO: ISSUES IN IMPLEMENTING QUALITY IMPROVEMENT PROGRAMS

The Teacher's Role in Quality Improvement

Regardless of the specific focus of an educational intervention, teachers are a factor in its success because they manage classrooms and interact with students on a day-to-day basis.

The teachers' role in large-scale quality enhancement activities is examined from three perspectives. First, Sivasailam Thiagarajan, in Chapter 6, argues that traditional interventions aimed at group-oriented teacher training programs to upgrade pedagogical and content expertise have been expensive, required complex logistics, and been largely unsuccessful. He challenges a series of assumptions commonly made about the recruitment and training of new teachers as an appropriate solution to the low quality of education. The causes of poor teacher performance, he suggests, can be attributed to deficits in organizational support, job

design, facilities, motivation, and teacher skills and knowledge. Not all of these can be addressed effectively through more teacher training. Rather, improved teacher performance requires the integration of training with other types of support. Thiagarajan uses the Improved Efficiency of Learning Project in Liberia to illustrate how such an integrated system can work.

Frances Kemmerer, in Chapter 7, explores ways of designing and managing teacher incentives. She treats teacher incentives as part of a larger resource allocation problem. The ability of many countries to meaningfully alter monetary incentives is severely limited by economic and fiscal constraints that are not expected to improve in the foreseeable future. With direct monetary incentives limited by larger economic and fiscal constraints, many countries will need to make better use of indirect monetary and nonmonetary incentives.

Kemmerer presents a model to outline choices among teacher incentives and offers criteria for selecting an efficient combination of incentives. Using the model, she examines typical problems encountered in the operation of central and local-level incentive systems in developing countries. Finally, she explores the political constraints to reform of incentive systems in developing countries.

Improving instructional quality always involves change at the classroom level of instruction. Conrad Wesley Snyder, Jr., in Chapter 8, suggests that an important dimension of instructional improvement efforts too frequently overlooked is that instructional interventions, in altering the activities of the classroom, may seriously impinge on the worklife of the teacher. Unless teachers' affective environment is given adequate consideration, good ideas and interventions may falter from teacher neglect and avoidance.

He argues that to have a sustainable impact, instructional interventions must attend to implicit social and cultural conditions that comprise the context of implementation. Interventions in schools can be enacted only if the teachers understand the intervention and are willing participants in the change process. Second, he suggests that teacher receptivity to the innovation can be anticipated in advance of implementation and used as a basis for altering the intervention to accommodate the local affective environment. In discussing this, he introduces the concept of "assimilation resistance."

Teachers develop certain means-ends cognitive structures to deal with the enactment of teaching. These schemes provide psychological balance for the individual's actions and serve to test new events and information. Initially, teachers will try to assimilate an instructional intervention into their perceptual and conceptual context. If this succeeds, the teachers adopt the innovation as a "good idea" within their own experience and understanding of the local situation. When this happens, it is referred