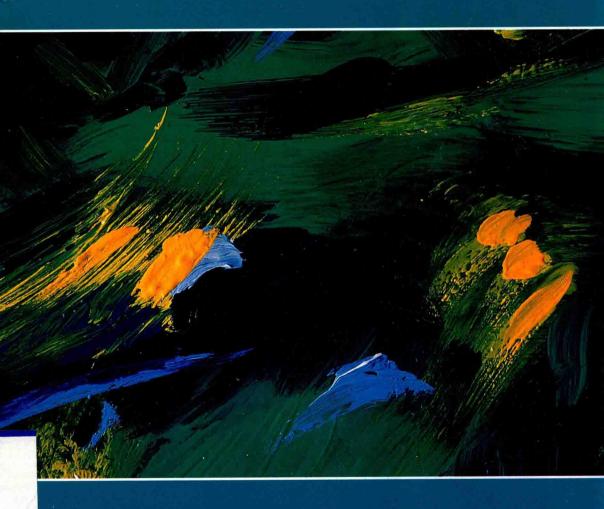
# ANALYZING THE CURRICULUM

SECOND EDITION



GEORGE J. POSNER

# Analyzing the Curriculum

SECOND EDITION

George J. Posner
Cornell University

McGraw-Hill, Inc.

New York St. Louis San Francisco Auckland Bogotá Caracas Lisbon London Madrid Mexico City Milan Montreal New Delhi San Juan Singapore Sydney Tokyo Toronto

#### This book was developed by Lane Akers, Inc.

This book was set in Palatino by The Clarinda Company.

The editor was Lane Akers;

the production supervisor was Kathryn Porzio.

The cover was designed by Circa '86.

The photo editor was Anne Manning.

Project supervision was done by The Total Book.

R. R. Donnelley & Sons Company was printer and binder.

Cover: The Image Bank; photographer: John W. Banagan.

#### ANALYZING THE CURRICULUM

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Acknowledgments appear on page xx, and on this page by reference.

This book is printed on acid-free paper.

0 DOC/DOC 0 98765432

ISBN 0-07-050705-8

#### Library of Congress Cataloging-in-Publication Data

Posner, George J.

Analyzing the curriculum / George J. Posner. —2nd ed.

p. cm

Includes bibliographical references and index.

ISBN 0-07-050705-8

1. Education—United States—Curricula. 2. Curriculum evaluation—

United States. I. Title.

LB1570.P643 1995

375'.00973-dc20

94-33750

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#### *About the Author*

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## Preface

Analyzing the Curriculum grew out of a series of attempts to offer a basic course in curriculum for undergraduate and graduate students who were either preparing for teaching and administrative positions or seeking to build on previous professional experiences. These professionals and preprofessionals had a reasonable set of expectations. They all wanted a course that not only would give them a solid theoretical introduction to curriculum but also would show them how they could use that knowledge. Many existing texts either failed to provide the kind of introduction to the foundational aspects of the curriculum literature that was needed, or failed to show the practical application of those valuable ideas. Therefore, I found myself in the position of gradually developing materials for the course. Over a twelve-year period, these course materials matured to the point that they seemed to have the potential for a text in their own right. Four additional years of writing finally produced this text.

As a primary text, *Analyzing the Curriculum* can provide the backbone for a basic curriculum course. In such a case, the selection of readings that augment the text could determine the level of the course—that is, whether it is intended primarily for undergraduate or for graduate students. I use the book this way with beginning graduate students. As a supplemental text, *Analyzing the Curriculum* could be used alongside a more comprehensive text as a means of helping students apply their knowledge to a particular case study. Lately, I have also been using the book in a required seminar in our teacher education program either during or immediately following student teaching. The purpose of this seminar is to encourage our students to reflect on their student teaching by examining their experience in the context of the curriculum they were teaching.

The book offers students many benefits. They learn how the parts of a curriculum fit together and how to identify assumptions underlying curricula. In so doing, they develop the ability to determine why a curriculum proves better for some students than for others; what approaches to teaching are compatible with a particular curriculum; what difficulties a curriculum is likely to encounter during implementation; and what kinds of changes in the curriculum

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parents, students, and administrators are likely to demand. These are valuable skills for evaluating, selecting, and adapting existing programs to suit particular situations.

Discussion of five theoretical perspectives is woven throughout the book. An understanding of the conceptual underpinnings of these five perspectives, each of which has influenced a great deal of curriculum development in the United States and other countries, is conceived of as a set of lenses for viewing a set of mainstream curriculum topics: curriculum purpose and content, curriculum organization, curriculum implementation, and evaluation. The perspectives allow students to examine each of these from divergent viewpoints in order to expose the assumptions that underlie decisions in each area.

The book is organized into four parts. Part I provides the foundation for the book and for the curriculum analysis project to which students apply what they learn. It presents definitions of basic terminology, key concepts, basic elements of a curriculum document, and the general parameters of curriculum analysis. Then Part I helps the student unravel the story behind the development of a curriculum and presents five contrasting theoretical perspectives on curriculum. Part II concerns curriculum purposes, content, and organization. It includes a discussion of educational aims, goals, and objectives, and a comparison of behavioral and cognitive approaches to objectives. It also discusses curriculum organization: basic concepts are introduced, and a comparison of three conflicting perspectives is offered—in this case, a top-down, a bottomup, and a project-centered approach to curriculum organization. Part III concerns the curriculum as it is actually used. The first half of this part considers the topic of curriculum implementation as a process of curriculum change. It describes the various physical, organizational, political-legal, personal, cultural, and economic resources and constraints within which any curriculum must function. Then it presents two alternative approaches to curriculum change, the research, development, and dissemination (RD&D) and the collaborative approach. The second half of Part III focuses on curriculum evaluation, presenting basic concepts and then contrasting a measurement-based with an integrated approach. Part IV looks back at the analysis of the previous three parts and asks the student to assess the strengths and limitations of the particular curriculum under examination.

Each of these parts provides concepts and perspectives that you can employ to analyze a curriculum of your own choosing. In order to help you learn to apply these ideas to a specific curriculum, the book uses two features. First, each chapter concludes with a set of curriculum analysis questions. Second each part provides examples and case studies to illustrate how the concepts and perspectives are manifested in actual curricula. This feature also has the benefit of exposing you to several noteworthy nationally known curricula, including Whole Language, the Individually Prescribed Instruction curriculum for elementary mathematics, Man: A Course of Study, Reading Recovery, PSSC Physics, Foxfire, Science: A Process Approach, ChemCom, and Distar.

One of the problems in writing a curriculum text is the almost unlimited scope of the field. Special care has been taken not to omit significant topics not

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directly related to curriculum analysis. Some important aspects of curriculum study that would otherwise be omitted are infused into other chapters. For example, although no chapter is devoted solely to the history of the field, nearly every chapter provides historical background for its major topics. Similarly, although no chapter is devoted solely to a critical perspective, each part of the book considers the topics under study from a critical viewpoint.

The second edition expands and updates the first edition in several significant ways. A complete and exemplary curriculum analysis has been added in the appendix, so that the reader can see what a finished analysis might look like. A separate section on authentic assessment has been added to Chapter 11. Current trends in curriculum, such as curriculum alignment, outcomes based education (OBE), and constructivism have been made more explicit. A discussion of curricula for youth at-risk has been added to Chapter 7. The scenarios that introduce many of the chapters have been integrated into the chapters. Finally, the references have been updated.

The writer of a text such as this owes a debt of gratitude to many people. There were those colleagues who graciously contributed to the work by writing pieces for it or by critiquing it and offering valuable suggestions. These colleagues include William Schubert, George Willis, Margaret McCasland, Pamela Moss, Helena Spring, Decker Walker, Ed Short, Gerry Ponder, Ken Strike, and Phil Smith. Colleagues who unknowingly but substantially contributed to the work through the ideas I found in their published writings include Peter Johnston, Ernest House, J. Myron Atkin, Michael Apple, Mauritz Johnston, Bernard Baars, Robert Zais, Dorothy Nelkin, and Lawrence Cremin. Students who took my basic curriculum course, Curriculum Theory and Analysis, over the past sixteen years have supplied more ideas than they will ever know. More important, they taught me that I can only write when I teach and only teach when I write. Lane Akers, my friend and publisher has believed in this work from the outset, has taken risks with it, and has been a constant source of encouragement and professional guidance whenever the project seemed impossible. I wish to thank my secretary, Berni Oltz, for her patience and editorial help. My children, Prema and Becky, put up with a father who always seemed to be at his computer. Last, and most of all, I wish to express my gratitude to my wife, Adrienne, who read virtually every line of this book and offered the kind of criticism only an artist can offer. In spite of these many contributions, I accept responsibility for any shortcomings of this work.

# Acknowledgments

- Bloom et al.: *Handbook on Formative and Summative Evaluation of Student Learning,* (1981). Material is reproduced with permission of McGraw-Hill, Inc.
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- Longman Publishing Group. Course Design: A Guide to Curriculum Development for Teachers, 3d edition, (1987) by George J. Posner and Alan N. Rudnitsky.
- Longman Publishing Group. *Taxonomy of Educational Objectives: The Classification of Educational Goals: Handbook I Cognitive Domain* by Benjamin S. Bloom et. al., (1956).
- Man: A Course of Study. © Educational Development Center, Inc., Newton, MA., (1968).
- National Educational Association, Washington DC. An Examination of the Potential Change Roles in Education (Essay Six) in Rational Planning in Curriculum and Instruction, (1967) by D. Clark and E. Guba.
- National Education Association, Washington DC. *The Practical: A Language for Curriculum*, (1970) by J. Schwab.
- Science Research Associates, Chicago IL. Our Working World: New Paths in Social Science Curriculum Design by Lawrence Senesh. Copyright © 1973.
- University of Chicago Press, Chicago IL. *The Physical Science Study Committee in School Review*, Vol. 70, No. 1, 1962 by Gilbert Finlay.

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