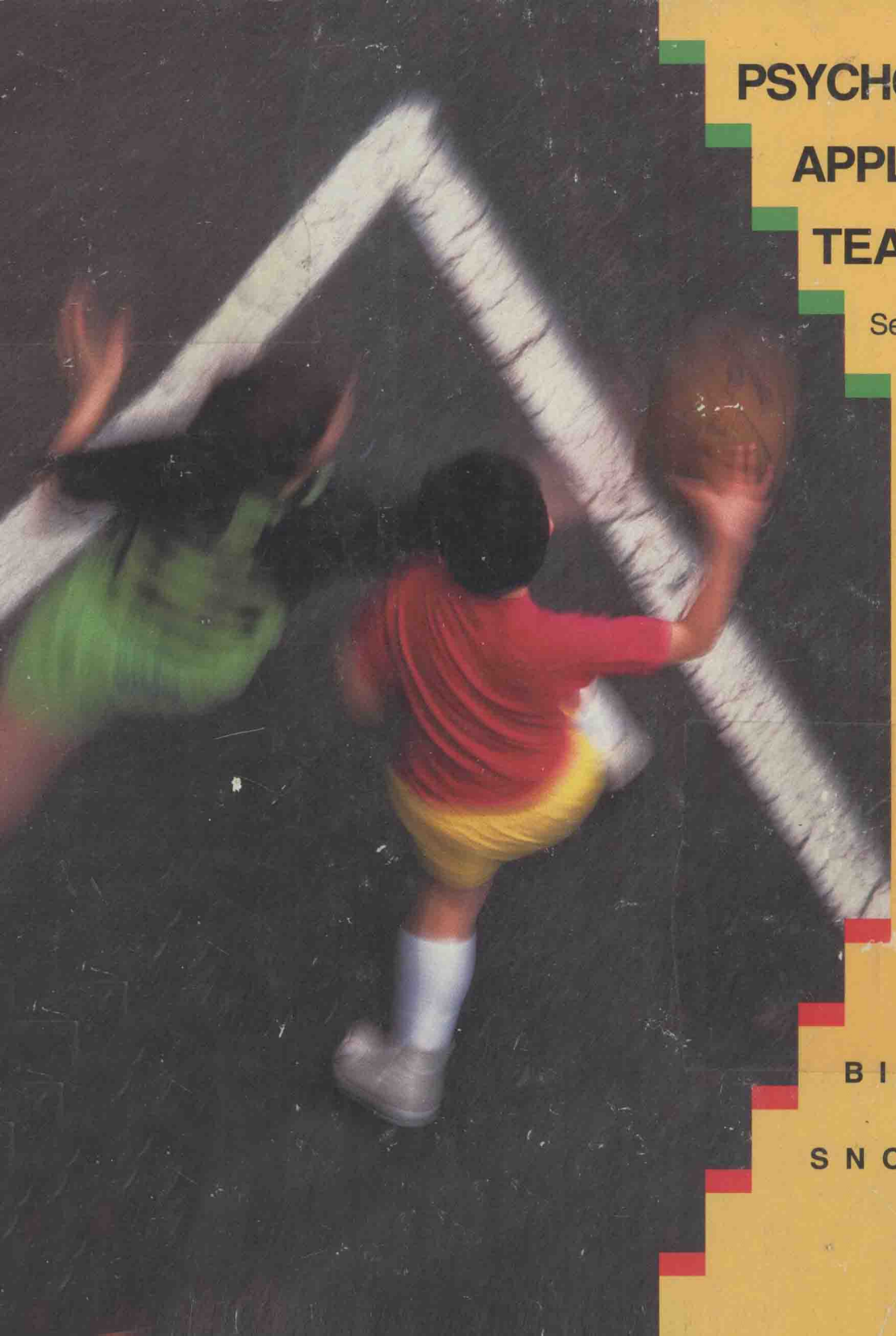

PSYCHOLOGY APPLIED TO TEACHING

Seventh Edition

BIEHLER

SNOWMAN

PSYCHOLOGY APPLIED TO TEACHING

Seventh Edition

ROBERT F. BIEHLER

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HOUGHTON MIFFLIN COMPANY **Boston Toronto**
Dallas Geneva, Illinois Palo Alto Princeton, New Jersey

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Senior production/design coordinator: *Pat Mahtani*
Electronic publishing specialist: *Karla K. Grinnell*
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Credits

Cover photo: Photograph by Paul Avis 1991

Part-opening photos:
Part 1: 1991 Rick Friedman/Black Star
Part 2: Bob Daemmrich/Stock, Boston, Inc.
Part 3: Nancy Sheehan/The Picture Cube
Part 4: 1992 Jerry Howard/Positive Images
Part 5: Richard Kalvar/Magnum

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Printed in the U.S.A.

Library of Congress Catalog Card Number: 92-72367

ISBN: 0-395-61598-4

23456789-DC-96 95 94 93

Preface

The hallmark of *Psychology Applied to Teaching* is its usefulness to teachers. It is written for students enrolled in an introductory educational psychology course, and is at once a basic source of information for prospective teachers and a resource for their future use as classroom teachers.

Special Features of the Text

This seventh edition of *Psychology Applied to Teaching* has been written to be used in three ways: (1) as a text that provides a review of scientific information organized and presented so that it will be understood, remembered, and applied; (2) as a source of practical ideas about instructional techniques for student teachers and beginning teachers; and (3) as a means for teachers to improve their effectiveness as they gain experience in the classroom.

Features of the Revision

Because of its central role in American society, education is a dynamic enterprise. Tens of thousands of people—including classroom teachers, school administrators, state education officials, politicians, and educational and psychological researchers—are constantly searching for and trying out new ideas in an attempt to increase student achievement. This searching about for ways to improve education is especially true of educational and psychological researchers. Since the last edition of *Psychology Applied to Teaching,* significant new developments have occurred in the areas of social, emotional, and cognitive development (particularly among adolescents), theories of intelligence, computer-assisted instruction, problem-solving, transfer of learning, classroom measurement and evaluation, and classroom management. The seventh edition has been extensively revised and comprehensively updated to incorporate these and other new developments. In developing *Psychology Applied to Teaching,* seventh edition, we were very much aware that this is a book for the 1990s—and beyond.

A key change in the seventh edition is the inclusion of a new chapter on cultural diversity and multicultural education programs. Titled "Understanding Cultural Diversity," Chapter 6 points out that the United States is no longer seen as a "melting pot" in which people of various cultures divest themselves of their unique cultural characteristics and take on a uniform set of "American" characteristics. Instead, the current metaphor is that of the salad bowl. People with different cultural backgrounds work toward the achievement of basic common

goals while retaining and emphasizing their unique cultural characteristics. This chapter describes how students from different cultural backgrounds differ from one another and how these differences can be productively integrated into instructional programs. In addition, coverage of multicultural concerns, issues, and perspectives has been integrated wherever relevant throughout the text to better prepare prospective teachers for the growing cultural diversity of our schools and classrooms.

A second major change in the seventh edition is the inclusion of a new feature in each of the learning chapters (8, 9, 10, and 11) titled "Applying Technology to Teaching." Written to reflect the increasing use of technology in classrooms, particularly computer-assisted instruction, this feature describes ways in which teachers can use computer technology to enhance what students know, how they think, and how they solve problems.

In addition to a new chapter on cultural diversity and a new feature on using technology, almost every chapter has been revised to reflect other important new developments. Chapter 1, "Applying Psychology to Teaching," discusses the benefits of becoming a reflective teacher and introduces a topic that reappears in two later chapters—the constructivist approach to teaching and learning. Chapter 2, "Stage Theories of Development," summarizes current research findings on sex-role stereotyping and identity formation, discusses the significance of Lev Vygotsky's zone of proximal development concept for cognitive development, and outlines Carol Gilligan's theory of female identity and moral development. Chapter 3, "Age-Level Characteristics," features current research findings on the nature and causes of delinquency, sex differences in cognitive abilities, learning styles, emotional development of adolescents, sexual behavior among adolescents, psychiatric disorders of adolescence, and employment patterns of teenagers. Chapter 4, "Assessing Pupil Variability," contains new material on carrying out non-discriminatory assessments and guidelines for interpreting standardized test scores to parents. Chapter 5, "Dealing with Pupil Variability," summarizes current research on the prevalence and effectiveness of ability grouping, discusses alternatives to ability grouping, summarizes current research on the effectiveness of mainstreaming, and describes recent amendments to PL 94-142, the Education for All Handicapped Children Act. Chapter 8, "Behavioral Learning Theories," includes current research on the effectiveness of computer-assisted instruction and behavior modification techniques and an expanded discussion of social learning theory. Chapter 10, "Cognitive Learning Theories and Problem-Solving," contains a new section on how to use constructivism to foster meaningful learning as well as a current view of transfer of learning. Chapter 13, "Measurement and Evaluation of Classroom Learning," contains new sections on alternative assessment methods and how teachers can improve their classroom grading practices.

A final change that deserves mention is perhaps the most subtle and underappreciated since it does not appear in any specific location. As anyone who has studied psychology or taught students at any level can attest, human behavior is the end result of many factors that interact with one another. We have tried to sensitize the reader to this fact both by pointing it out explicitly (see the

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introduction to Chapter 9, for example) and by making cross-references to other chapters wherever possible. The topic of learning strategies, for example, is discussed primarily in Chapter 9 but is also mentioned in conjunction with the writing of instructional objectives (Chapter 7), helping students clarify their values (Chapter 11), and measuring classroom learning (Chapter 13).

Special Features of the Text

The following features, many of which were introduced in various earlier editions, have been selected, improved, and augmented to make this seventh edition more useful and effective than its predecessors.

Key Points At the beginning of each chapter, Key Points are listed under major headings. They also appear in the margins of pages opposite sections in which each point is discussed. The Key Points call attention to sections of the text that are considered to be of special significance to teachers and thus serve as instructional objectives.

Suggestions for Teaching in Your Classroom Most chapters include summaries of research findings and principles relating to a particular topic. These are followed by detailed descriptions of various ways in which the information and concepts might be applied in classrooms. Numerous examples of applications at different grade levels are supplied, and readers are urged to select and record applications that will fit their own particular personality, style, and teaching situation in a Personal Handbook. The Suggestions for Teaching are intended to be read while the book is used as a text *and* referred to by future teachers and in-service teachers after they have completed course work. For ease in reference, these suggestions are printed in a different typeface from that used in other parts of the book and are highlighted by a colored screen background. Suggestions for Teaching are also indexed inside the back cover of the text.

Mid-Chapter Reviews This feature summarizes research-based information, principles, and theories presented in the first part of most chapters. These reviews strengthen understanding of points that serve as the basis for the Suggestions for Teaching in Your Classroom presented in the second part of most chapters. The Mid-Chapter Reviews include coverage of Key Points and are intended to serve as an effective learning aid for students preparing for examinations.

Handbook Headings and Becoming a Better Teacher: Questions and Suggestions These two features facilitate the preparation and use of a personal handbook for teaching. Readers are urged to use the Handbook Headings, which appear in the margins, to prepare a personal set of guidelines for reference before and during the student teaching experience and during the first years of teaching. The questions and suggestions in the Becoming a Better Teacher section are intended to help in-service teachers to analyze strengths and weaknesses and to

plan how to improve their effectiveness as instructors. A guide for setting up and using these resources is included in Chapter 15: "Becoming a Better Teacher."

Applying Technology to Teaching New to this edition, this special feature suggests ways that teachers can use computer technology to enhance their students' learning. It appears near the end of each of the four learning theories chapters in Part 3.

Resources for Further Investigation At the end of each chapter an annotated bibliography is presented offering sources of information of topics of interest to teachers. Some chapters also include within these suggestions instructions for carrying out simple scientific and observational studies and experiments.

Summary A numbered set of summary statements appears after the Resources for Further Investigation. This feature is intended to help students review the main points of a chapter for upcoming examinations or class discussions.

Key Terms Appearing after the Summary is a list of topics that are key aspects of the chapter. Understanding these topics is an essential part of understanding the chapter as a whole. To facilitate use of this feature, the page where each term is initially defined and discussed appears in parentheses.

Discussion Questions This feature appears after the Key Terms. Because understanding and retention of new information is enhanced when learners actively relate it to known ideas and experiences, the Discussion Questions ask the reader to reflect on how previous experiences (or possible future experiences) relate to the chapter material. These questions can serve as the focus for in-class discussion and out-of-class discussion.

Glossary A glossary of key terms and concepts is provided at the back of the book as an aid in reviewing for examinations or classroom discussion.

Indexes In addition to the detailed name and subject indexes at the end of the book, indexes to Suggestions for Teaching in Your Classroom, Applying Technology to Teaching, and Resources for Further Investigation are included inside the back cover.

Instructional Components That Accompany the Text

Study Guide The Study Guide for the seventh edition of *Psychology Applied to Teaching* was designed to help students formulate and carry out a strategy for mastering the Key Points. Students are provided general guidelines for analyzing their resources and learning materials, planning a learning strategy, carrying out the strategy, monitoring their progress, and modifying their strategy if they are dissatisfied with the results. As an integral part of the suggested tactics for

learning, original "concept maps" are supplied for each major section of each chapter. Concept maps are schematic representations of how major topics, subtopics, and Key Points of a chapter relate to each other. Also included in the Study Guide are exercises designed to help students enhance memory and understanding of Key Point material, and two sets of review questions (multiple-choice and short-answer) to support student efforts at self-monitoring. New to this edition are rejoinders for each multiple-choice response, explaining to students why each choice is either correct or wrong and referring students to specific pages in the text for additional information.

Instructor's Lecture Enrichment and Resource Manual This teaching aid provides for each chapter a detailed lecture outline with supplementary teaching suggestions, coverage of Key Points, supplementary discussion topics, student activities, extra references, listings of films and videotapes, reproduction of the Study Guide's concept maps, and "Approaches to Teaching Educational Psychology," a compendium of teaching tactics from professors across the country.

Test Bank The thoroughly revised Test Bank includes 1255 test items consisting of 790 multiple-choice items in alternate forms, 395 short-answer questions, and 70 essay questions. Consistent with this text's long-standing emphasis on mastery, each multiple-choice and short-answer question reflects a Key Point and either the knowledge, comprehension, application, or analysis level of Bloom's taxonomy. Feedback booklets allow instructors to point out misconceptions in students' reasoning.

Test Generator This component is an interactive computerized version of the Test Bank.

Transparencies An extensive set of eighty transparencies in one, two, and four colors consisting of figures, charts, and instructional aids in the text, is available upon adoption of the text.

Acknowledgments A number of reviewers made constructive suggestions and provided thoughtful reactions at various stages in the development of this manuscript. Thanks go out to the following individuals for their help:

Tom Boman, University of Minnesota, Duluth
Lenore S. Brantley, Andrews University
Albert C. Ciri, Bridgewater State College
Paul Erickson, San Diego State University
Lynn Fox, San Francisco State University
Christine Cassatt Givner, Trinity College
Mark Grabe, University of North Dakota
Jerry Gray, Washburn University
David Jeffrey, Stephen F. Austin State University
Martha S. Jones, University of Texas, San Antonio

Thomas McCaig, University of Wisconsin, Stevens Point
Anne Nardi, West Virginia University
Kenneth R. Romines, San Jose State University
Mary R. Sudzina, University of Dayton

Finally, I would like to acknowledge several other individuals for their invaluable contributions to this book:

I am indebted to the editorial and production staff of Houghton Mifflin Company, particularly Susan Granoff and Carol Newman, for helping make this text more accurate, more readable, more useful, and more attractive than I could have made it myself.

I am indebted to Linda Patrick and the staff of the Operations Support Center at Southern Illinois University at Carbondale for turning my rough manuscript into high-quality finished manuscript in such timely fashion that I never missed a deadline.

And last but not least, I am indebted to my wife, Ruth, for her encouragement, patience, and understanding (particularly for her understanding); to my daughter, Andrea, for expressing an interest in psychology and in writing as she heads off to college (perhaps she will succeed me at this task one day); and to my son, Jeffrey, for teaching me more about adolescence that I could learn from several journals and books.

J.S.

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