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Psychology Applied to Teaching

Fourth Edition

PSYCHOLOGY APPLIED TO TEACHING

Fourth Edition

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Preface

For reasons spelled out in the opening pages of Chapter 1, this fourth 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.

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

Key Points. At the beginning of each chapter, Key Points are listed opposite major headings. They also appear in color 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.

Suggestions for Teaching. Most chapters include summaries of research findings and principles relating to a particular topic that are followed by detailed discussion 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.

Handbook Headings and Becoming a Better Teacher: Questions and Suggestions. These two features are intended to facilitate the preparation and use of a personal Handbook of teaching. Readers are urged to use the Handbook Headings, which appear in the page 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 make it possible for in-service teachers to analyze strengths and weaknesses and to plan how to improve their effectiveness as instructors. Suggestions for Developing a Personal Handbook and Becoming a Better Teacher: Questions and Suggestions are grouped together at the very end of the book (after the name and subject indexes, glossary, and bibliography).

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

Glossary. New to this edition is a glossary of key terms and concepts.

Indexes. In addition to the usual name and subject indexes at the end of the book, an Index to Suggestions for Further Study is included inside the front cover. An Index to Suggestions for Teaching and an Index to Becoming a Better Teacher: Questions and Suggestions are provided inside the back cover.

Other than modifications and improvements in the features just described, this fourth edition of *Psychology Applied to Teaching* differs from earlier editions most notably in the organization and content of chapters. The new sequence of chapters (indicated by the Contents and summarized at the end of Chapter 1 on page 22) is designed to improve the structure and clarity of the presentation and also to reflect research trends in psychology and developments in education in the 1980s. Another major departure from the first three editions is that this fourth edition marks the beginning of a collaboration between Robert F. Biehler and Jack Snowman.

We would like to acknowledge our indebtedness to Marjorie V. Roberts who typed the various drafts of the manuscript and to the editors and artists of Houghton Mifflin Company who supervised the transition of the final manuscript into a text.

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PSYCHOLOGY APPLIED TO TEACHING

Contents	Key Points
The Nature and Values of Science	Scientific methods: sampling, control, objectivity, publication, replication
Studying Behavior: Complicating Factors	Differences of opinion due to selection and interpretation of data Cognitive dissonance: rejection of conflicting ideas Experimenter bias effect: communication of expectations Hawthorne effect: reactions to change and attention Educational "fads" often traceable to accumulating knowledge
The Teacher-Practitioner and the Teacher-Theorist	Teacher-practitioner: enthusiastic commitment Teacher-theorist: objective analysis

Chapter 1

Applying Psychology to Teaching

This book differs from most other texts you are likely to have read because it has been designed to be used in three different ways. The simplest and most direct way to begin to explain why it is different and how it can be used is to relate a frustrating but enlightening experience.

"What They Didn't Tell Us"

A few years after the "senior" author of this book began teaching a course in educational psychology, a student-teacher chapter of the state teachers' association was formed on campus. The leaders of this group, who were scheduled to do student teaching the following September, decided to present a panel discussion the last meeting of the year in May. They invited five recent graduates who were just completing their first year of teaching to discuss the provocative topic: "What They Didn't Tell Us." Since "they" included professors who taught educational psychology, and since the professor who is writing these words was just beginning to think about getting to work on a text, he decided to go to the discussion and take notes. The meeting was very well attended and the panelists had the audience of future student teachers on the edge of their seats much of the evening. When the meeting finally broke up most of the audience left the room with a sense of satisfaction. They had picked up all sorts of valuable tips straight from the horse's mouth. The professor and would-be author, on the other hand, was bothered and bewildered.

The college the panelists had graduated from was quite small at that time and all of them had taken his course in educational psychology just two years before. Several of the bits of information that the panelists had told the student teachers to be sure to pick up somehow or other before they entered a classroom had been discussed (directly or indirectly) in the ed psych text they had read. Yet these former students—who had successfully answered test questions and earned high grades in educational psychology—now talked as if they had never heard of such a course.

During the question-and-answer period that followed the panelists' presentations, the professor had thought about asking to be recognized, standing up, and saying something like, "This discussion really ought to be called 'What We Forgot.' I *did* tell you some of the things you are talking about, but you didn't remember them." Since he tends to be timid about speaking in public, though, he squirmed silently in his seat in the back row and fumed and brooded. Later that night, after having had time to think things over, he was glad that he hadn't sounded off because he concluded that he (along with the author of the text he had used) was more to blame than the former students for their failure to remember and use what they had learned.

At that early stage of his career the professor made up tests similar to most of those he had taken all through his college years. After announcing that an exam would be given, he went through the assigned chapters of the text. When he found a section that impressed him as important *or* which looked as if it could easily be converted into a test question, he wrote a multiple-choice item. Much of the time, it must be confessed, information stressed in questions was selected more for testability than for importance or significance. After they had taken the first exam students figured out that the most sensible way to study for subsequent exams was to try to put themselves in the place of the person writing the questions. That is, they skimmed through the book and selected for study sections that impressed them as likely to appeal to someone making up items for an exam. Since they studied primarily to answer test questions, they naturally assumed that what they had learned had served its purpose as soon as they completed an exam. Since there was no longer any reason to remember it, they forgot it.

While the kinds of test questions used undoubtedly contributed to the tendency for students to fail to remember what they had learned, the text on which the questions were based also deserved part of the blame. The author made no attempt to illustrate how what was discussed might be applied. His philosophy seemed to be: "My job is to tell you about facts, principles, and theories. Your job is to figure out what to do with what I tell you." Since the students realized that their primary responsibility during the course was to pass exams, they had no inclination at that time to try to figure out how to apply what they read. And since the book offered no

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