BEHAVIOR MODIFICATION

Principles and Procedures

Fourth Edition

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University of South Florida

THOMSON WADSWORTH

Australia • Brazil • Canada • Mexico • Singapore • Spain
United Kingdom • United States
To my wife, Nasrin,

and my kids, Ryan, Roxanne, and Steven
Raymond G. Miltenberger received his Ph.D. in Clinical Psychology in 1985 from Western Michigan University. He is currently a professor and director of the Applied Behavior Analysis Masters Program at the University of South Florida. Dr. Miltenberger conducts applied behavior analysis research with his students and publishes widely in the areas of habit disorders, functional assessment and treatment of behavioral disorders, and self-protection skills training. He utilizes behavior modification in clinical work with children and individuals with mental retardation. In addition to spending time with his family, he enjoys running, golf, baseball, and travel.
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We are gratified that the first three editions of *Behavior Modification: Principles and Procedures* received positive reviews from students and professors. The fourth edition has kept the positive features of the first three editions, and has been revised to address the suggestions of reviewers and updated to reflect the latest research in behavior modification.

The goal of this fourth edition (as with the earlier editions) is to describe basic principles of behavior, so that the student learns how environmental events influence human behavior, and to describe behavior modification procedures, so that the student learns the strategies by which human behavior may be changed. The text is divided into 25 relatively short chapters, each of which covers a manageable amount of information (for example, one principle or procedure).

This text can be used in a standard one-semester course in behavior modification, applied behavior analysis, behavior management, or behavior change.

The material in the text is discussed at an introductory level, so that it may be understood by students with no prior knowledge of the subject. This text is intended for undergraduate students or beginning graduate students. It would also be valuable for individuals working in human services, education, or rehabilitation who must use behavior modification procedures to manage the behavior of the individuals in their care.

I have made a concerted effort in this text to be gender neutral. When discussing case examples, I include males and females about equally as often.

**Features of the Text Continued From the First Three Editions**

The following features of the text are intended to help the reader learn easily.

**Organization of the Text**

Following a general introduction to the field in Chapter 1, Chapters 2 and 3 present information on behavior recording, graphing, and measuring change. This information will be utilized in each subsequent chapter. Next, Chapters 4–8 focus on the basic principles of operand and respondent behavior. The application of these principles forms the subject of the remaining 17 chapters. Procedures to establish new behaviors are described in Chapters 9–12, and procedures to increase desirable behaviors and decrease undesirable behaviors are considered in Chapters 13–19.

Finally, Chapters 20–25 present a survey of other important behavior modification procedures.

**Principles and Procedures**

The various procedures for changing behavior are based on fundamental principles of behavior established in experimental research over the last 70 years. In the belief that the student will better understand the procedures after first learning the fundamental principles, the principles underlying operand and respondent behavior are reviewed in Chapters 4–8; the application of the principles in the behavior modification procedures is described in Chapters 9–25.
Examples from Everyday Life
Each chapter uses a variety of real-life examples—some relevant to college students, some chosen from the author’s clinical experience—to bring the principles and procedures to life.

Examples from Research
In addition, both classic studies and the most up-to-date research on behavior modification principles and procedures are integrated into the text.

Quizzes Accompany Each Chapter
At the end of each chapter are three fill-in-the-blank quizzes with 10 questions each. The quizzes provide students with further exercises for self-assessment of their knowledge of the chapter’s content. The quizzes are on perforated pages, which can be easily torn out so that the instructor can have students hand the quizzes in as homework assignments or have students take the quizzes in class.

Practice Tests
Practice tests at the end of each chapter have short-answer essay questions, complete with page numbers where the answers can be found.

Application Exercises
At the end of each chapter where procedures are taught (Chapters 2, 3, and 9–25), several application exercises are provided. In each exercise, a real-life case is described and then the student is asked to apply the procedure described in the chapter. These exercises give students an opportunity to think about how the procedures are applied in real life.

Misapplication Exercises
The application exercises are followed by misapplication exercises. In each one, a case example is provided, and the procedure from the chapter is applied to the case in an incorrect or inappropriate manner. The student is asked to analyze the case example and to describe what is wrong with the application of the procedure in that case. These misapplication exercises require the student to think critically about the application of the procedure. Answers to Applications and Misapplications are in the Instructors Manual, making them valuable tools for instructors as they assess their students’ abilities to apply the information provided in the chapter.

Step-by-Step Approach
In each chapter in which a particular behavior modification procedure is taught, the implementation of the procedure is outlined in a step-by-step fashion, for ease of comprehension.

Summary Boxes
Periodically throughout the text, information from a chapter is summarized in a box that has been set off from the text. These boxes are intended to help the student organize the material in the chapter.

Chapter Summaries
Chapter summaries provide information that is consistent with the opening questions in each chapter.

Examples for Self-Assessment
In the early chapters on basic principles (Chapters 4–7) there are tables with examples of the principle discussed within that chapter. Later in the chapter (or in a subsequent chapter), the student is directed to return to a specific table and, using the new information being presented in the chapter, to analyze specific aspects of the examples provided in that table.

Self-Assessment Questions
At intervals throughout the text, students are presented with self-assessment questions. To answer these questions, students will need to utilize the information already presented in the chapter. These questions will help students assess their understanding of the material.
answers are presented in the text immediately following the question.

Figures
Most of the chapters include figures from the research literature to illustrate important principles or procedures. Students must use information from earlier chapters on behavior recording, graphing, and measuring change to analyze the graphs.

Glossary
At the end of the text is a glossary of the important behavior modification terms used in the text. Each term is followed by a succinct and precise definition.

Improved Test Bank
The test bank includes multiple-choice questions, fill-in-the-blank questions, true-false questions, and short-answer essay questions.

NEW FEATURES IN THE FOURTH EDITION

In addition to the features continued from the first three editions, three major features have been added to the fourth edition.

For Further Reading
In each of the chapters on behavioral principles (Chapters 4–8) and procedures (Chapters 9–25) a For Further Reading box has been added. In this feature, interesting articles that are relevant to the content of the chapter are identified and briefly described. Citations for these articles have also been provided. These articles are from JABA (or JEAB), so they can be easily accessed online by students. (The JABA website is http://seab.envmed.rochester.edu/jaba/) Instructors can assign these articles for extra credit or as reading assignments for when more advanced students use the textbook.

List of Key Terms
After each Chapter Summary section, there is now a list of the new terms that were used in the chapter. The list of key terms shows the page number on which each term was introduced. Although these terms are all found in the Glossary at the end of the text, having the new terms listed at the end of each chapter with page numbers will allow the student to make easy reference to the terms when reading the chapter or when studying for a test or quiz.

Updated and Expanded References
The fourth edition includes 125 additional references—many of which are from the most recent volumes of JABA—to present students with the most recent scholarship in the field.

Other New Features
Chapter 1 has a brief discussion of the relationship between applied behavior analysis and behavior modification. Chapter 2 has new information on structured versus unstructured assessment and on recording percentage of opportunities. Chapter 4 has an added discussion of social versus automatic reinforcement. Chapter 7 has a new figure from Lalli et al. (1998), showing another example of a generalization gradient relevant to an applied problem. Chapter 12 has a new section on in situ training, a method used to increase generalization following the use of behavioral skills training. New chapter headings are provided to help the reader better organize the research on antecedent control in Chapter 16. In Chapter 19, one figure was eliminated (Figure 19.2 from Ayllon, Kuhlman, & Warzak, 1982), and another figure and text was added (Durand, 1999) to highlight a study on programming generalization.
A c k n o w l e d g m e n t s

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F o r t h e B e h a v i o r M o d i f i c a t i o n S t u d e n t

To get the most out of this text and out of your behavior modification course, you are encouraged to consider the following recommendations.

1. Read the assigned chapters before the class meeting at which the chapter is to be discussed. You will benefit more from the class if you have first read the material.

2. Answer each of the self-assessment questions in the chapter to see if you understand the material just covered.

3. Answer the practice test questions at the end of each chapter. If you can answer each question, you know that you understand the material in the chapter.

4. Complete the end-of-chapter quizzes to assess your knowledge of the chapter content (unless your professor plans to use the quizzes in class).

5. Complete the application and misapplication exercises at the end of the procedure chapters. In that way, you will understand the material in the chapter well enough to apply it or to identify how it is applied incorrectly.

6. The best way to study for a test is to test yourself. After reading and rereading the chapter and your class notes, test yourself in the following ways.

- Look at key terms in the chapter and see if you can define them without looking at the definitions in the text.
- Look at each practice test question at the end of the chapter and see if you can give the correct answer without looking up the answer in the text or in your notes.
- Come up with novel examples of each principle or procedure in the chapter.
Make flash cards with a term or question on one side and the definition of the term or the answer to the question on the other side. While studying, look at the term (or question) on one side of the card and then read the definition (or answer) on the other. As you study, you will find that you need to turn the cards over less and less often. Once you can supply the answer or definition on the back of the card without looking, you’ll know that you understand the material.

Always study in a location that is reasonably free from distractions or interruptions.

Always begin studying for a test at least a few days in advance. Give yourself more days to study as more chapters are included on the test.

The following websites provide a range of valuable information about different aspects of behavior modification or applied behavior analysis.

http://seab.envmed.rochester.edu/jaba/
http://seab.envmed.rochester.edu/jeab/
http://www.abainternational.org
http://www.auburn.edu/~newlamec/apa_div25/
http://www.abct.org
http://fabaworld.org
http://www.calaba.org/
http://www.unt.edu/behv/txaba/
http://www.babat.org/
http://www.behavior-analyst-online.org/index.html
http://www.behavior.org
http://www.bfskinner.org/
http://www.bacb.com/

Journal of Applied Behavior Analysis*
Journal of the Experimental Analysis of Behavior
The Association for Behavior Analysis
APA Division 25 (Behavior Analysis)
Association for Behavioral and Cognitive Therapy
Florida Association for Behavior Analysis
California Association for Behavior Analysis
Texas Association for Behavior Analysis
Berkshire Association for Behavior Analysis and Therapy
The Behavior Analyst Online
Cambridge Center for Behavioral Studies
B.F. Skinner Foundation
Behavior Analysis Certification Board

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