

Second Edition

# HANDBOOK OF

DEMONSTRATIONS

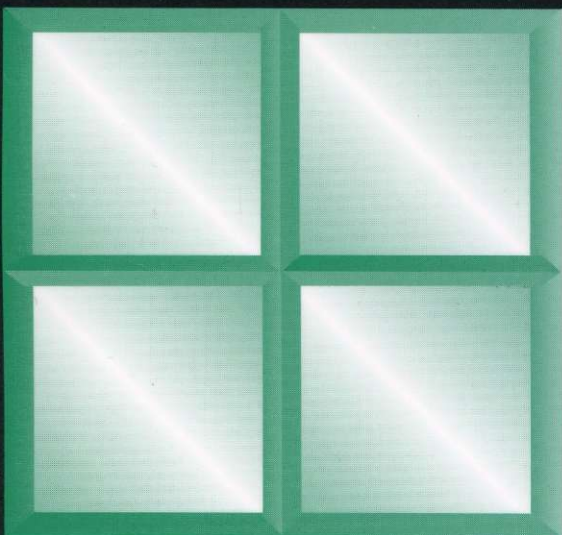
AND ACTIVITIES

IN THE TEACHING

OF PSYCHOLOGY

## Volume II

*Physiological-Comparative, Perception, Learning,  
Cognitive, and Developmental*



Edited by

Mark E. Ware  
*Creighton University*

David E. Johnson  
*John Brown University*

# Table of Contents

Preface	xi
<b>Section I: Physiological-Comparative</b>	
<b>1. Preparing for Exams</b>	
PhysioPursuit: A trivia-type game for the classroom. <i>James E. Ackil</i>	5
<b>2. Teaching Neuroanatomy and Neurophysiology</b>	
Teaching anatomy of the sheep brain: A laboratory exercise with PlayDoh™. <i>Christopher Wilson and David K. Marcus</i>	9
The colossal neuron: Acting out physiological psychology. <i>Scott B. Hamilton and Thomas A. Knox</i>	11
Neural coding and synaptic transmission: Participation exercises for introductory psychology. <i>Richard Reardon, Francis T. Durso, and Donald A. Wilson</i>	15
Propagation of action potentials: An active participation exercise. <i>Gary Felsten</i>	19
Computer simulation of the neuronal action potential. <i>Paul R. Solomon, Scott Cooper, and Dean Pomerleau</i>	22
Reaction time as a behavioral demonstration of neural mechanisms for a large introductory psychology class. <i>E. Rae Harcum</i>	24
<b>3. Teaching Hemispheric Laterality</b>	
Some simple classroom experiments on cerebral lateralization. <i>Ernest D. Kemble, Terri Fiiipi, and Linda Gravlin</i>	29
Classroom demonstration of behavioral effects of the split-brain operation. <i>Edward J. Morris</i>	32
<b>4. Collecting Physiological Data from Students</b>	
The Biolog project: Self-monitoring as a laboratory for physiological psychology. <i>Barry S. Anton</i>	37
The study of biobehavioral rhythms in a psychology laboratory course. <i>David L. Rowland and Theresa Wesselhoft</i>	39
<b>5. Teaching Comparative Psychology</b>	
Timing like a rat: A classroom demonstration of the internal clock. <i>W. Robert Batsell, Jr.</i>	45
A classroom simulation of transitivity problems in animals. <i>W. Robert Batsell, Jr.</i>	48
Exercise demonstrating a genetic-environment interaction. <i>Robert T. Brown</i>	50
<b>Section II: Perception</b>	
<b>1. Acquiring Demonstrations</b>	
Using student projects to acquire demonstrations for the classroom and laboratory. <i>Walter F. Wagor</i>	57
An improved device for studying adaptation to displaced vision. <i>Robert H. Terborg</i>	59
<b>2. Teaching Sensation</b>	
Demonstrations of auditory stimulus-sensation relations. <i>John D. Batson</i>	63
Audition laboratory activities for teaching sensation and perception. <i>Alexis Grososfsky</i>	66

Using the Macintosh as an oscilloscope in psychology courses. <i>Allen L. Shoemaker</i>	68
Using a function generator to produce auditory and visual demonstrations. <i>Charles B. Woods</i>	70
<b>3. Illustrating Illusions</b>	
Constructing a moving cube illusion. <i>J. R. Corey</i>	75
The Janus illusion. <i>Dale Klopfer and Michael E. Doherty</i>	76
A teaching demonstration involving perceived lunar size. <i>Mark A. Kunkel</i>	80
The garbage-can illusion as a teaching demonstration. <i>Robert Cavalier and Richard Wesp</i>	82
Demonstrations of the size-weight illusion. <i>David T. Horner and K. Desix Robinson</i>	84
A valid demonstration of the missing fundamental illusion. <i>Janet D. Larsen and Klaus Fritsch</i>	86
<b>4. Teaching Various Concepts in Perception</b>	
The versatile mirror drawing apparatus. <i>E. W. Jacobs</i>	91
Selective attention with human earphones. <i>C. James Goodwin</i>	92
Demonstrations of color perception and the importance of contours. <i>David T. Horner</i>	94
Oh say, can you see? <i>Frederick J. Kozub</i>	96
<b>Section III: Learning</b>	
<b>1. Introducing Learning</b>	
Defining learning: Two classroom activities. <i>Thomas Rocklin</i>	103
<b>2. Using Animals to Teach Learning</b>	
An inexpensive habituation and sensitization learning laboratory exercise using planarians. <i>Michael J. Owren and Dana L. Scheuneman</i>	107
A classical conditioning laboratory for the psychology of learning course. <i>Gary B. Nallan and D. Mark Bentley</i>	109
Teaching operant conditioning at the zoo. <i>Kristen E. Lukas, M. Jackson Marr, and Terry L. Maple</i>	111
Classical-conditioning demonstrations for elementary and advanced courses. <i>Charles I. Abramson, Tim Onstott, Shawn Edwards, and Kathy Bowe</i>	116
A classroom demonstration of taste-aversion learning. <i>Michael R. Best and W. Robert Batsell, Jr.</i>	121
<b>3. Teaching Classical Conditioning</b>	
Demonstrating classical conditioning in introductory psychology: Needles do not always make balloons pop! <i>Mark W. Vernoy</i>	127
Preparing for an important event: Demonstrating the modern view of classical conditioning. <i>Art Kohn and James W. Kalat</i>	128
Teaching and demonstrating classical conditioning. <i>John Sparrow and Peter Fernald</i>	131
<b>4. Teaching Operant Conditioning</b>	
Conditioning the instructor's behavior: A class project in psychology of learning. <i>Joan C. Chrisler</i>	137
Demonstrating differential reinforcement by shaping classroom participation. <i>Gordon K. Hodge and Nancy H. Nelson</i>	139
A computer tutorial on the principles of stimulus generalization. <i>Robert B. Graham</i>	141
Overcoming misunderstanding about the concept of negative reinforcement. <i>Robert T. Tauber</i>	144
<b>5. Using Computers to Teach Learning</b>	
A multimedia program in associative learning. <i>Nigel W. Bond</i>	149

## **Section IV: Cognitive**

### **1. Starting and Planning the Course**

A method for teaching name mnemonics. <i>Steven M. Smith</i>	157
Intelligence as a unifying theme for teaching cognitive psychology. <i>Robert J. Sternberg and Jennifer Pardo</i>	159
Making TV commercials as a teaching aid for cognitive psychology. <i>Scott D. Groniund and Stephan Lewandowsky</i>	163
Capturing the fervor of cognitive psychology's emergence. <i>Kenneth A. Weaver</i>	166
Tracing the cognitive revolution through a literature search. <i>Frank Hassebrock</i>	168
From Monty Python to <i>Total Recall</i> : A feature film activity for the cognitive psychology course. <i>David B. Conner</i>	170

### **2. Teaching Concepts and Theories**

Pay attention! Demonstrating the role of attention in learning. <i>Janet D. Larsen</i>	175
Memory and the Seven Dwarfs. <i>Marianne Miserandino</i>	176
Classroom uses of a demonstration of the incidental-learning paradigm. <i>Timothy A. Bender and Carol F. Shoptaugh</i>	179
Name seven words: Demonstrating the effects of knowledge on rate of retrieval. <i>Jacqueline E. Muir-Broaddus</i>	182
Using a videotape clip to demonstrate the fallibility of eyewitness testimony. <i>Nancy R. Gee and Jennifer L. Dyck</i>	184
The word fragment completion effect: A computer-assisted classroom exercise. <i>Lawrence M. Schoen</i>	187

### **3. Improving Memory**

Enhancing the psychology of memory by enhancing memory of psychology. <i>Russell N. Carney, Joel R. Levin, and Mary E. Levin</i>	191
Mnemopoly: Board games and mnemonics. <i>Lawrence M. Schoen</i>	194

### **4. Examining Miscellaneous Issues**

An interactive classroom demonstration of propositional and analogical representation. <i>John K. Kruschke</i>	199
Demonstrating the influence of cognition on emotion and behavior. <i>Jerry L. Deffenbacher</i>	203
A demonstration of research methodologies used in psycholinguistics. <i>William Langston</i>	206

## **Section V: Developmental - Child**

### **1. Emphasizing Writing**

Your lot in life. <i>Sharon Boland Hamill and Catherine Hale</i>	215
Using feature films to teach social development. <i>Chris J. Boyatzis</i>	217
Using animated films to teach social and personality development. <i>Steven J. Kirsh</i>	219
A collaborative assignment on the role of culture in child development and education. <i>Chris J. Boyatzis</i>	221

### **2. Using Videotapes**

The use of student-performed developmental exercises in the classroom. <i>William R. Batch</i>	227
Laboratories and demonstrations in child development with unedited videotapes. <i>Debra Ann Poole</i>	230

### **3. Observing and Interacting with Children**

Essay exchange with children: An exercise for the child development class. <i>Louise Katz</i>	235
A child panel to facilitate the instruction of child development. <i>Tammi Vacha-Haase</i>	238
Enriching child psychology courses with a preschool journal option. <i>Judith Sugar and Marilyn Livosky</i>	239

## 4. Incorporating Piagetian Concepts

Bringing Piaget's preoperational thought to the minds of adults: A classroom demonstration. <i>Jane Ewens Hoi brook</i>	245
Systematizing the Piagetian clinical interview for classroom use. <i>Jeanne Ellis Ormrod and Kyle R. Carter</i>	247
Piagetian conservation in college students: A classroom demonstration. <i>Eliot Shimoff</i>	251

### Section VI: Developmental - Adolescent

An interview method for teaching adolescent psychology. <i>Paula J. Schwanenflugel</i>	255
Student composed case study in adolescent psychology. <i>John L. McManus</i>	257
Teaching about puberty: Learning to talk about sensitive topics. <i>John R. Charlesworth, Jr. and John R. Slate</i>	258
"Live" case study/journal record in adolescent psychology. <i>John L. McManus</i>	261
The media project: Enhancing student interest in the psychology of adolescence. <i>Thomas B. Ward</i>	266
Applying theories of development: An exercise for teaching adolescent psychology. <i>Donna M. Desforges</i>	268

### Section VII: Developmental - Adult and Aging

Fostering insight into personal conceptions of the elderly: A simulation exercise. <i>Randall D. Wight</i>	273
Learning activities for understanding aging. <i>Stephen B. Fried</i>	275
Addressing stereotypes and ageism in a life span development course. <i>Jane P. Sheldon</i>	278
Psychological implications of infantilization: A class exercise. <i>Susan Krauss Whitbourne and Erin L. Cassidy</i>	280
We dream, you do: "Great" grandmothers teach a lesson in women's changing roles. <i>Elizabeth C. Vozzola</i>	282

### Section VIII: Developmental - Life Span

#### 1. Emphasizing Writing

Use of a portfolio writing assignment in a course on developmental psychology. <i>Susan E. Beers</i>	289
Let the caged bird sing: Using literature to teach developmental psychology. <i>Chris J. Boyatzis</i>	291
"Dear Mom and Dad": Using personal letters to enhance students' understanding of developmental issues. <i>Ellen N. Junn</i>	293
Describing the development of a developmental psychologist: An alternative term paper assignment. <i>Kathleen M. Galotti</i>	297

#### 2. Structuring Field Experience

Using community service to teach developmental psychology. <i>Kathleen McCluskey-Fawcett and Patricia Green</i>	303
Interviewing across the life span: A project for an adult development course. <i>Marsha D. Walton</i>	306
Using biographies of adults over 65 years of age to understand life-span developmental psychology. <i>Joan M. Neysmith-Roy and Carmel L. Kleisinger</i>	308

#### 3. Examining Topical Issues

A three-dimensional demonstration of embryogenesis. <i>Kathleen A. Kleiner</i>	315
The nature-nurture issue: Lessons from the Pillsbury Doughboy. <i>David B. Miller</i>	317
Discussion topics for developmental psychology. <i>Anne J. Bryan</i>	319
Using classroom debates in teaching developmental psychology. <i>Thomas G. Moeller</i>	321
Illustrating life-span development in physical competence. <i>Steven Pulos</i>	324
Science and values: Addressing practical issues in developmental psychology. <i>Marsha D. Walton</i>	326
Dr. Kohlberg goes to Washington: Using congressional debates to teach moral development. <i>Johnna K. Shapiro</i>	327

## **4. Using Toys and Games**

Constructing toys to integrate knowledge about child development. *Joan M. Neysmith-Roy*

Create-a-children's game: An exercise for developmental psychology classes. *Georgia N. Nigro*

**Table**

**Appendix**

**Subject Index**