Behavioral Contributions to *Teaching of Psychology*: An Annotated Bibliography

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An annotated bibliography that summarizes behavioral contributions to the journal *Teaching of Psychology* from 1974 to 2006 is provided. A total of 116 articles of potential utility to college-level instructors of behavior analysis and related areas were identified, annotated, and organized into nine categories for ease of accessibility.

Key words: college teaching, teaching behavior analysis, annotated bibliography

The journal *Teaching of Psychology*, which is published by Division 2 of the American Psychological Association (Society for the Teaching of Psychology), publishes a variety of resources for instructors in postsecondary education. Examples include evaluations of specific teaching methods, descriptive accounts of in-class demonstrations, and other tutorials designed to clarify concepts that may be difficult to teach. Since its inception in 1974, a number of behavior analysts and instructors of topics relevant to behavior analysis have disseminated their classroom practices and research findings in the journal. The purpose of the present article is to highlight these contributions as potential aids to current instructors who are involved in developing or teaching college-level courses in behavior analysis and related areas.

The annotated bibliography was selected as the medium for summarizing behavioral contributions to *Teaching of Psychology* in the interest of providing a comprehensive resource for instructors to locate articles of specific relevance and applicability. A primary function of a bibliographic resource is to “facilitate the transfer of scholarship, science, and technology within and across

disciplines, cultures, and countries for the purposes of teaching, research, and intervention” (Morris & Smith, 2003, p. 43). Toward this end, the following bibliography also includes annotations designed to increase the probability that instructors can easily locate articles germane to a specific course or purpose.

Annotated bibliographies have often been used to organize and summarize published works in behavior analysis and in the teaching of psychology. For example, Lennox, Miltenberger, Spengler, and Erfanian (1988) summarized 5 years of research on the use of decelerative interventions for the problem behavior of individuals with developmental disabilities. Similarly, Rapp, Carstensen, and Prue (1983) summarized 5 years of research in organizational behavior management via annotated bibliography. Beginning in 1979, *Teaching of Psychology* has published an annual annotated bibliography that includes references of articles published across journals in the previous year on the topic of teaching psychology (e.g., Johnson, Kirkbride, & Schroder, 2005). The format of the bibliography (i.e., cumulative numbering practice across years, criteria for inclusion) is constant, although the categories in which references are grouped have changed. Current categories include career issues; computers, technology, and the Internet; introductory psychology; and research methods; among others. Al-

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Figure 1. Cumulative number of articles relevant to behavior analysis in *Teaching of Psychology* from 1974 to 2006.

though these annotated bibliographies on the teaching of psychology offer a useful general resource, identifying and summarizing an organized subset of this literature devoted to behavior analysis and related issues may be of particular value to instructors in this discipline.

Articles were selected and categorized according to several criteria to develop the annotated bibliography that follows. The tables of contents from all volumes of *Teaching of Psychology* published between 1974 and 2006 were reviewed by the first author, and a series of follow-up searches of the PsycINFO database were conducted by both authors. All articles that included information on procedures, concepts, or authors affiliated with behavioral psychology were selected for detailed joint review by both authors. Articles that were difficult to classify as behavioral or nonbehavioral based on the initial

review were also selected for further review. We then completed a cooperative appraisal of each article. An agreed-upon close relation between the content of a particular article and a topic in behavior analysis (i.e., concepts, principles, instructional technology, people) was required for final inclusion in the annotated bibliography. A total of 116 articles were identified. Next, the final pool of articles was sorted by type of behavioral technology (e.g., personalized systems of instruction [PSI], self-management), type of activity (e.g., demonstrations, laboratories, course design, research supervision), interviews with behavior analysts, and miscellaneous topics. Finally, we organized the articles into nine more refined categories: representations and opinions of behavior analysis; in-class activities, demonstrations, and tutorials; laboratories and demonstrations with nonhumans; be-

Figure 2. Cumulative number of articles on personalized systems of instruction (PSI), in-class demonstrations, and course laboratories in *Teaching of Psychology* from 1974 to 2006.

havioral instructional technology; course descriptions and development; personalized systems of instruction; self-management systems; research supervision; and interviews with prominent behavior analysts.

The annotation for each article was based on elements of interest extracted from each article. The first two to three words in each annotation specify whether the article includes a description, the discussion of a point of contention, an analysis or evaluation of a particular practice, or a comparison of two or more practices. Subsequent text describes the primary elements of interest, examples of which include the discussion of specific teaching approaches, behaviors of interest, and the inclusion of student evaluation data, among others. The information included in each annotation was identified by the first or the second author based on a checklist of the common components across articles within each category.

During the process of reviewing and categorizing the articles featured

in the annotated bibliography, several interesting patterns were observed. Figure 1 depicts the cumulative number of behavioral contributions to *Teaching of Psychology* between 1974 and 2006. It is evident that behavioral contributions were published at a greater rate between 1974 and 1984, after which the rate decreased but has remained steady over the years. Analysis of the content of these earlier articles suggests that a shift in frequency of articles on PSI is responsible for the rate change. Figure 2 depicts the cumulative number of articles published in the three most prevalent categories identified in the journal: PSI (40%), in-class demonstrations (20%), and laboratories (13%). In particular, articles on the topic of PSI were more prevalent in earlier issues of *Teaching of Psychology* compared to more recent issues. (callout F. 1, F. 2)

At least three variables might be responsible for the publication shift for PSI. First, as a body of literature on these topics emerged in the

journal, editorial reviewers may have been less likely to accept subsequent contributions. Second, though unlikely, it might be that these methods were so well disseminated that further research and reference in the literature correspondingly decreased over time. Finally, a decrease in interest and use of these practices would reduce the rate at which research on the topic is conducted. This possibility and its prospective contributing factors were discussed at length by Buskist, Cush, and DeGrandpre (1991). The authors cited reduced time and preparation requirements for instructors in the traditional college classroom and the general efficacy of the lecture method as important factors accounting for research interest in PSI that has been "decreasing precipitously" (p. 228).

Regardless of the reasons for the reduction in rate of behavioral contributions to *Teaching of Psychology* observed in the mid-1980s, the journal has consistently published one to six articles relevant to behavioral psychology each year. The dual intended purposes of the present annotated bibliography are to provide a practical resource for instructors of behavior analysis and related topics and to prompt continued efforts to bring behavioral topics and technologies to a wider audience of psychology instructors. In this way, contributions to *Teaching of Psychology* not only assist with the dissemination of behavioral instructional technology but also increase the visibility of behavior analysis to a mainstream psychology audience.

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- Lennox, D. B., Miltenberger, R. G., Spengler, P., & Erfanian, N. (1988). Five years of decelerative research for behavior problems by developmentally disabled persons: An annotated bibliography. *Mental Retardation and Learning Disability Bulletin*, 16, 47-77.
- Morris, E. K., & Smith, N. G. (2003). Bibliographic processes and products, and a bibliography of the published primary-source works of B. F. Skinner. *The Behavior Analyst*, 26, 41-67.
- Rapp, S. R., Carstensen, L. L., & Prue, D. M. (1983). Organizational behavior management 1978-1982: An annotated bibliography. *Journal of Organizational Behavior Management*, 5, 5-50.
- Buskist, W., Miller, E., Ecott, C., & Critchfield, T. S. (1999). Updating coverage of operant conditioning in introductory psychology. *Teaching of Psychology*, 26, 280-283.
- Discusses survey results from the editors of *Journal of the Experimental Analysis of Behavior* concerning the most important concepts and principles of contemporary research in operant conditioning for inclusion in introductory psychology textbooks.
- DeBell, C. S., & Harless, D. K. (1992). B.F. Skinner: Myth and misperception. *Teaching of Psychology*, 19, 68-73.
- Evaluates the extent to which individuals at different levels of education in psychology hold misperceptions about B. F. Skinner and his theories.
- Jeger, A. M., & McClure, G. (1979). The attitudinal effects of undergraduate behavioral training. *Teaching of Psychology*, 6, 226-228.
- Compares the attitudes toward behavior modification of undergraduate students who received either experiential or academic training in behavior modification.
- Lamal, P. A. (1995). College students' misconceptions about behavior analysis. *Teaching of Psychology*, 22, 177-180.
- Discusses survey results from advanced undergraduate students re-

APPENDIX

Representations and Opinions of Behavior Analysis

garding commonly held misconceptions of behavior analysis. Results from an evaluation of resistance to change of these misconceptions following a one-semester introductory class on behavior modification are also reported.

- Marholin, D., Taylor, R. L., & Warren, S. A. (1978). Learning to apply psychology: Didactic training, experience, and opinions about behavior analysis. *Teaching of Psychology*, 5, 23–26.

Evaluates three variables that may be related to undergraduate performance on a test on the basic principles of behavior analysis and student opinions regarding the utility of behavior modification.

- Prytula, R. E., Oster, G. D., & Davis, S. F. (1977). The rat rabbit problem: What did John B. Watson really do? *Teaching of Psychology*, 4, 44–46.

Discusses the frequently misquoted studies by Watson and Rayner on “conditioned emotional reactions” as a means of encouraging psychology students to read primary sources rather than rely on the interpretations of textbooks.

- Windholz, G., & Lamal, P. A. (1986). Priority in the classical conditioning of children. *Teaching of Psychology*, 13, 192–195.

Discusses the chronology of early cases of classical conditioning of children, including Watson and Rayner (1920), and additional preceding and concurrent investigations.

In-Class Activities, Demonstrations, and Tutorials

- Batsell, R. W. (2006). Acquisition, extinction, and renewal of classical conditioning: Updating Cogan and Cogan (1984). *Teaching of Psychology*, 33, 129–131.

Describes an extension of the Cogan and Cogan (1984) demonstration of classical conditioning with lemonade powder that also illustrates renewal effects.

- Best, M. R., & Batsell, R., Jr. (1998). A classroom demonstration of taste-aversion learning. *Teaching of Psychology*, 25, 116–118.

Describes a demonstration for recreating the features of taste-aversion research and thereby teaches students about the role of animal research in the field of psychology.

- Cameron, K., Coffee, R. J., Hada, J., & Deni, R. (1985). Four Applesoft BASIC programs to control experiments in human learning and memory. *Teaching of Psychology*, 12, 47–49.

Describes a series of BASIC programs for controlling experimentation and facilitating classroom demonstrations in the areas of human memory, operant behavior, and visual discrimination.

- Carr, J. E., & Austin, J. (1997). A classroom demonstration of single-subject research designs. *Teaching of Psychology*, 24, 188–190.

Describes a classroom demonstration for teaching the withdrawal design to undergraduate students.

- Cogan, D., & Cogan, R. (1984). Classical salivary conditioning: An easy demonstration. *Teaching of Psychology*, 11, 170–171.

Describes a method for demonstrating principles of classical conditioning using sweetened lemonade powder with undergraduate students serving as active participants.

- Dermer, M. L. (2004). Using CHAINS, a QuickBASIC 4.5 program, to teach single-subject experimentation with humans. *Teaching of Psychology*, 31, 285–288.

Describes a computer-based activity in which students are exposed to key elements of single-case experimental research (e.g., repeated measures data collection, withdrawal of treatment, visual data analysis).

- Edwards, J. S. (1976). Words vs. records: A practical behavior recording exercise for psychology courses. *Teaching of Psychology*, 3, 35–37.

- Describes an activity for developing precise recording skills among graduate and undergraduate students with an emphasis on the value of collecting accurate, quantitative measures of human behavior.
- Flora, S. R., & Pavlik, W. B. (1990). An objective and functional matrix for introducing concepts of reinforcement and punishment. *Teaching of Psychology, 17*, 121–122.
- Describes a matrix for teaching the relation between operant concepts of reinforcement and punishment to undergraduate psychology students.
- Fox, R. A., Falkner, D. B., & Lopuch, W. R. (1984). Graduate students' effectiveness at training others in progressive relaxation training. *Teaching of Psychology, 11*, 51–52.
- Evaluates the effects of progressive relaxation training administered by graduate students on measures of anxiety and favorability among undergraduate trainees.
- Gibb, G. D. (1983). Making classical conditioning understandable through a demonstration technique. *Teaching of Psychology, 10*, 112–113.
- Describes a demonstration technique for teaching undergraduates enrolled in an introductory psychology course the principles of classical conditioning.
- Graham, R. B. (1994). A computer tutorial for psychology of learning courses. *Teaching of Psychology, 21*, 115–116.
- Describes a computer tutorial for teaching the fundamentals of discrimination learning including concepts of stimulus discrimination, extinction, and differential reinforcement.
- Graham, R. B. (1997). A computer tutorial on consequences in operant learning. *Teaching of Psychology, 24*, 216–217.
- Describes a computer tutorial for teaching the fundamentals of consequences and contingencies in operant learning.
- Grant, L. K. (2004). Teaching positive reinforcement on the Internet. *Teaching of Psychology, 31*, 69–71.
- Describes an empirically supported online tutorial on positive reinforcement for an undergraduate course.
- Hodge, G. K., & Nelson, N. H. (1991). Demonstrating differential reinforcement by shaping classroom participation. *Teaching of Psychology, 18*, 239–241.
- Describes a classroom demonstration of differential reinforcement to introduce students to shaping and operant conditioning procedures while potentially increasing classroom participation.
- Hughes, D. (1990). Participant modeling as a classroom activity. *Teaching of Psychology, 17*, 238–240.
- Describes an activity that introduces students to participant modeling as a treatment for anxiety and avoidance in the presence of a red rat snake.
- Keith, K. D. (2002). Peak-shift phenomenon: A teaching activity for basic learning theory. *Teaching of Psychology, 29*, 298–300.
- Describes an activity in which students engage in discrimination training and demonstrate the peak-shift phenomenon.
- Kiewra, K. A., & DuBois, N. F. (1992). Using a spatial system for teaching operant concepts. *Teaching of Psychology, 19*, 43–44.
- Describes a system of spatial representation for teaching operant concepts.
- Kling, J. W. (1981). Demonstrating experiments in learned taste aversions. *Teaching of Psychology, 8*, 166–169.
- Describes a laboratory experiment producing robust effects with a relatively simple apparatus and procedures for use in undergraduate laboratory courses.
- Kohn, A., & Kalat, J. W. (1992). Preparing for an important event: Demonstrating the modern view of

- classical conditioning. *Teaching of Psychology*, 19, 100–102.
Describes a demonstration that illustrates the process of classical conditioning and introduces the notion that the function of classical conditioning is to prepare an organism for an important upcoming event.
- Lawson, T. J., & Reardon, M. (1997). A humorous demonstration of in vivo systematic desensitization: The case of eraser phobia. *Teaching of Psychology*, 24, 270–271.
Describes an in-class role-play for teaching students the procedures associated with in vivo systematic desensitization.
- McConnell, J. V. (1990). Negative reinforcement and positive punishment. *Teaching of Psychology*, 17, 247–249.
Describes an instructional method for teaching undergraduate students the difficult concept of negative reinforcement.
- Rocklin, T. (1987). Defining learning: Two classroom activities. *Teaching of Psychology*, 14, 228–229.
Describes two in-class activities to assist students in evaluating various definitions of learning and arriving at a useful final definition.
- Silva, F. J., Yuille, R., & Peters, L. K. (2000). Method for illustrating the continuity of behavior during schedules of reinforcement. *Teaching of Psychology*, 27, 145–148.
Describes a computer program for illustrating continuity of behavior, acquisition of operant behavior, the assignment-of-credit problem, organization of behavior across time, and the analysis of single-subject data.
- Laboratories and Demonstrations with Nonhumans*
- Abramson, C. I. (1986). Invertebrates in the classroom. *Teaching of Psychology*, 13, 24–29.
Describes materials relevant to organizing and implementing a laboratory program for demonstrating classical, instrumental, and avoidance conditioning in invertebrates.
- Abramson, C. I., Onstott, T., Edwards, S., & Bowe, K. (1996). Classical conditioning demonstrations for elementary and advanced courses. *Teaching of Psychology*, 23, 26–30.
Describes exercises for demonstrating classical conditioning with earthworms and houseflies as safe, convenient alternatives to potentially dangerous or seasonal invertebrates.
- Barber, N. (1994). Reducing fear of a laboratory rat: A participant modeling approach. *Teaching of Psychology*, 21, 228–230.
Evaluates the effect of a participant modeling intervention on students' fears of handling a lab rat.
- Herzog, H. A. (1988). Naturalistic observation of behavior: A model system using mice in a colony. *Teaching of Psychology*, 15, 200–202.
Describes activities that require students to generate a coding system and gather data on the behavior observed in a mouse colony.
- Hull, D. B. (2003). Observing animal behavior at the zoo: A learning laboratory. *Teaching of Psychology*, 30, 117–119.
Describes a laboratory course that requires students to select, operationalize, and record the behaviors of a species of animal at the zoo. Pre- and postlab measures of student attitudes regarding the study of animal behavior and confidence in observational skills are also reported.
- Katz, A. N. (1978). Inexpensive animal learning exercises for huge introductory laboratory classes. *Teaching of Psychology*, 5, 91–93.
Describes a course that makes use of planaria as inexpensive and efficient subjects for demonstrating both classical and instrumental conditioning to students in a large laboratory setting.
- Kogan, L. R., & Kellaway, J. A. (2004). Applied animal behavior

- course: A service-learning collaboration with the humane society. *Teaching of Psychology*, 31, 202–204.
- Describes an operant animal training experience in an undergraduate animal behavior course.
- Lukas, K. E., Marr, M. J., & Maple, T. L. (1998). Teaching operant conditioning at the zoo. *Teaching of Psychology*, 25, 112–116.
- Describes a partnership between a zoo and a college to train undergraduate students in operant conditioning techniques.
- Michael, J. (1975). An advanced laboratory course in the experimental analysis of behavior. *Teaching of Psychology*, 2, 165–169.
- Describes objectives and exercises for an advanced undergraduate laboratory course in the experimental analysis of behavior.
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- Describes a lab project involving rats and operant training equipment to introduce students to principles of conditioning, learning, and memory.
- Nolan, L. J. (2004). Use of terrestrial hermit crabs in the study of habituation. *Teaching of Psychology*, 31, 98–100.
- Describes an undergraduate laboratory experiment that illustrates habituation with hermit crabs.
- Owren, M. J., & Scheuneman, D. L. (1993). An inexpensive habituation and sensitization learning laboratory exercise using planarians. *Teaching of Psychology*, 20, 226–228.
- Describes a lab exercise using planarians to demonstrate habituation and sensitization processes. Opportunities for demonstrating spontaneous recovery and short- versus long-term habituation are also described.
- Palya, W. L. (1978). The debriefing form. *Teaching of Psychology*, 5, 214–216.
- Describes a method for monitoring student performance and increasing the likelihood of regular interaction between students and instructors in a laboratory course.
- Renner, M. J. (2004). Learning the Rescorla-Wagner model of Pavlovian conditioning: An interactive simulation. *Teaching of Psychology*, 31, 146–148.
- Describes an interactive spreadsheet program that illustrates the Rescorla-Wagner model.
- Weiss, C. S. (1980). An inexpensive animal laboratory course. *Teaching of Psychology*, 7, 193–195.
- Describes a laboratory course using easily stored, relatively inexpensive male Siamese fighting fish for students to conduct a variety of behavioral investigations.
- Behavioral Instructional Technology*
- Boniecki, K. A., & Moore, S. (2003). Breaking the silence: Using a token economy to reinforce classroom participation. *Teaching of Psychology*, 30, 224–227.
- Evaluates the effect of a token-economy intervention on the participation of undergraduate students in an introductory psychology course.
- Fernald, P. S., & Jordan, E. A. (1991). Programmed instruction versus standard text in introductory psychology. *Teaching of Psychology*, 18, 205–211.
- Compares the effects of programmed instruction with reading a standard textbook chapter on student quiz scores.
- Heckler, J. B., Fuqua, R. W., & Pennypacker, H. S. (1975). Errorless differentiation of academic responses by college students. *Teaching of Psychology*, 2, 103–107.
- Evaluates a method of errorless discrimination training with college undergraduates. Discusses the results in terms of future methods of classroom instruction.

- Kellum, K. K., Carr, J. E., & Dozier, C. L. (2001). Response-card instruction and student learning in a college classroom. *Teaching of Psychology*, 28, 101–104.
Compares the effects of in-class review questions with and without response cards on learning and participation of community college students.
 - Luyben, P. D., Hipworth, K., & Pappas, T. (2003). Effects of CAI on the academic performance and attitudes of college students. *Teaching of Psychology*, 30, 154–158.
Compares the effects of computer-assisted instruction (CAI), including fluency and mastery training components, to traditional study methods on the test performance and attitudes of participants toward CAI.
 - Saville, B. K., Zinn, T. E., & Elliott, M. P. (2005). Interteaching versus traditional methods of instruction: A preliminary analysis. *Teaching of Psychology*, 32, 161–163.
Describes a brief experiment in which interteaching was demonstrated to be a more effective teaching method than a lecture or an assigned reading.
 - Shields, C., & Gredler, M. (2003). A problem-solving approach to teaching operant conditioning. *Teaching of Psychology*, 30, 114–116.
Evaluates the effect of the completion of a series of in-class and homework problems on undergraduate students' understanding of the concepts of operant conditioning, including positive and negative reinforcement.
- Course Descriptions and Development*
- Blampied, N. M., & Black, W. A. (1976). Training in behavior therapy and behavior modification in colleges and universities: A bibliography. *Teaching of Psychology*, 3, 90–91.
Provides a bibliography for teachers of behavior therapy or behavior modification courses including references on materials for developing objectives, curriculum planning, and accessing the viewpoints of other instructors.
 - Chase, P. N., Sulzer-Azaroff, B., & Well, A. (1983). Designing an introductory course for transfer students: A behavioral systems approach. *Teaching of Psychology*, 10, 7–11.
Discusses a behavioral systems approach to the problem of designing a course for students who transfer into a large, eclectic psychology department from other institutions.
 - Lamal, P. A., & Croy, M. (1985). Psychology and philosophy meet in the classroom. *Teaching of Psychology*, 12, 167–168.
Describes a course designating and exploring radical behaviorism and cognitivism as competing viewpoints. Discusses the potential benefits and considerations associated with such a course.
 - O'Brien, R. M., Sperduto, W. A., & Goff, A. B. (1984). An undergraduate practicum in organizational behavior management: Course description and project outcomes. *Teaching of Psychology*, 11, 149–153.
Describes a research seminar in organizational behavior management that provides undergraduate students with the opportunity to learn about behavior analysis, gain field experience, and learn about experimental methods.
 - Windholz, G., & Lamal, P. A. (1985). Kohler's insight revisited. *Teaching of Psychology*, 12, 165–167.
Discusses replications and alternative interpretations of Kohler's two-stick experiment and the corresponding theory of insight. Discusses implications for the inclusion of a more contemporary interpretation of the phenomenon in psychology textbooks.
- Personalized Systems of Instruction*
- Ainsworth, L. L. (1979). Self-paced instruction: An innovation that

- failed. *Teaching of Psychology*, 6, 42–46.
Discusses the poor performance of students in two modified PSI classes in terms of the validity of the PSI format.
- Allen, G. J. (1984). Using personalized system of instruction to improve the writing skills of undergraduates. *Teaching of Psychology*, 11, 95–98.
Evaluates the effects of a personalized course structure on the critical writing abilities of undergraduate students.
- Barrera, M., & Glasgow, R. E. (1976). Design and evaluation of a personalized instruction course in behavioral self-control. *Teaching of Psychology*, 3, 81–84.
Evaluates the effects of the PSI methodology on student performance in a course on behavioral self-control.
- Bernstein, D. J. (1979). Reliability and fairness of grading in a mastery program. *Teaching of Psychology*, 6, 104–107.
Describes a method for increasing the fairness and consistency of undergraduate graders by implementing regular reliability checks and a formal appeal system.
- Brooke, R. R., & Ruthven, A. J. (1984). The effects of contingency contracting on student performance in a PSI class. *Teaching of Psychology*, 11, 87–89.
Evaluates the effects of a contingency contracting intervention on student withdrawal, procrastination, study habits, attitudes, and final exam scores in a PSI course.
- Brothen, T., Wambach, C., & Hansen, G. (2001). Effective student use of computerized quizzes. *Teaching of Psychology*, 28, 292–294.
Evaluates the effect of a “prepare–gather feedback–restudy” strategy on the computerized quiz performance of undergraduate students enrolled in a PSI course.
- Brothen, T., Wambach, C., & Hansen, G. (2002). Accommodating students with disabilities: PSI as an example of universal instructional design. *Teaching of Psychology*, 29, 239–240.
Describes a PSI course that incorporates a systematic means of identifying and accommodating the needs of all students on a regular basis.
- Caldwell, E. C. (1985). Dangers of PSI. *Teaching of Psychology*, 12, 9–12.
Discusses central features of PSI courses, the impact of the model on classroom instruction in higher education, and several problems associated with the use of PSI (e.g., low-level content, student cheating).
- Caldwell, E. C., Bissonnette, K., Klishis, M. J., Ripley, M., Farudi, P. P., Hochester, G. T., et al. (1978). Mastery: The essential essential in PSI. *Teaching of Psychology*, 5, 59–65.
Discusses the results of four studies that evaluated the effects of varying degrees of student–proctor interaction and mastery performance criteria on overall student performance in PSI courses.
- Calhoun, J. F. (1976). The combination of elements in the personalized system of instruction. *Teaching of Psychology*, 3, 73–76.
Evaluates the PSI model by removing components (self-pacing, immediate feedback, frequent tests over small units, use of student proctors) and observing the effects on overall student performance in the course.
- Couch, R. W., Ober, B. R., & Merrill, M. H. (1984). Where have all the proctors gone? A technology for ensuring staff attendance. *Teaching of Psychology*, 11, 226–228.
Evaluates the effects of replacement option and incentive interventions on the attendance of undergraduate proctors in a PSI course.
- Eppler, M. A., & Ironsmith, M. (2004). PSI and distance learning in a developmental psychology

- course. *Teaching of Psychology*, 31, 131–134.
Describes and presents outcome data on a Web-based PSI course on human development.
- Fernald, P. S., Chiseri, M. J., Lawson, D. W., Scroggs, G. F., & Riddell, J. C. (1975). Systematic manipulation of student pacing, the perfection requirement, and contact with a teaching assistant in an introductory psychology course. *Teaching of Psychology*, 2, 147–151.
Evaluates the effects of manipulation of three central features of a PSI course on student performance and course evaluation results.
- Finn, J. P. (1983). Adding a student-student component to the PSI model. *Teaching of Psychology*, 10, 41–43.
Compares the effect of PSI alone with PSI in addition to a student-helping-student intervention on course performance.
- Henneberry, J. K. (1976). Initial progress rates as related to performance in personalized systems of instruction. *Teaching of Psychology*, 3, 178–181.
Evaluates the fast or slow starting status of students enrolled in a PSI course as predictive of overall course performance. Discusses the results in terms of prompt intervention for students who are most likely to struggle in such courses.
- Hobbs, S. H. (1981). A comparison of student- and instructor-paced formats in the introductory psychology course. *Teaching of Psychology*, 8, 209–211.
Compares the effects of self-pacing and instructor-determined pacing on the test performance, withdrawal rates, and attitudes of undergraduate students.
- Hobbs, S. H. (1987). PSI: Use, misuse, and abuse. *Teaching of Psychology*, 14, 106–107.
Discusses the risks of PSI courses, including concerns associated with the use of student proctors and an emphasis on written materials.
- Johnson, W. G., Zlotlow, S., Berger, J. L., & Croft, R. G. (1975). A traditional lecture versus a PSI course in personality: Some comparisons. *Teaching of Psychology*, 2, 156–158.
Compares the effects of a traditional course and a PSI course on withdrawal rates and student-completed course and instructor evaluations.
- Keller, F. S. (1974). Ten years of personalized instruction. *Teaching of Psychology*, 1, 4–9.
Discusses the history and development of personalized systems of instruction, including a treatment of the components of PSI, its proponents and contributors in the field of psychology, and implications for the durability of the model.
- Keller, F. S. (1985). Lightning strikes twice. *Teaching of Psychology*, 12, 4–8.
Discusses the status of PSI as an untenable model and outlines the components of an ideal teaching system.
- Laham, S. L., & Caldwell, E. C. (1979). Pre-quiz discussion differentially affects student performance. *Teaching of Psychology*, 6, 213–216.
Evaluates the effect of the prequiz discussion component of a PSI course on quiz scores, quizzes to mastery, and dropout rates among undergraduate students.
- Lamal, P. A. (1984). Interest in PSI across sixteen years. *Teaching of Psychology*, 11, 237–238.
Discusses the number of papers and poster presentations on the topic of PSI at annual meetings of professional associations in the field of psychology over time.
- Lamberth, J., & Kostas, D. (1979). Mastery teaching with and without positive incentives. *Teaching of Psychology*, 6, 71–74.

- Compares the effects of the instructional systems of programmed student achievement and the programmed achievement study system on course performance of undergraduate students.
- Lamwers, L. L., & Jazwinski, C. H. (1989). A comparison of three strategies to reduce student procrastination in PSI. *Teaching of Psychology, 16*, 8–12.
- Evaluates the effects of contracting, doomsday, and doomsday-with-tokens course contingencies on student procrastination.
- Lloyd, M. E., & Lloyd, K. E. (1986). Has lightning struck twice? Use of PSI in college classrooms. *Teaching of Psychology, 13*, 149–151.
- Discusses survey-generated information regarding the changing role and form of PSI courses across university psychology departments.
- Lu, P. H. (1976). Teaching human growth and development by the personalized system of instruction. *Teaching of Psychology, 3*, 127–128.
- Compares the effects of a traditional course and a PSI course on exam performance of undergraduate students.
- Pear, J. J., & Novak, M. (1996). Computer-aided personalized system of instruction: A program evaluation. *Teaching of Psychology, 23*, 119–123.
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Describes a method for incorporating seminars led by undergraduate proctors into a PSI course to create a learning experience for both students and discussion leaders.

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Describes a method for conducting a PSI course that employs team teaching by a psychologist and a teacher-educator and covers multiple required areas of course work for graduate students.

Self-Management Systems

Barton, E. J. (1982). Facilitating student veracity: Instructor application of behavioral technology to self-modification projects. *Teaching of Psychology*, 9, 99–101.

Evaluates the effects of a behavioral intervention on the accuracy of final reports and data yielded from student self-modification projects.

Dodd, D. K. (1986). Teaching behavioral self-change: A course model. *Teaching of Psychology*, 13, 82–85.

Discusses the need for course offerings in behavioral self-control within psychology departments. A specific model and suggestions for implementation are also provided.

Hamilton, S. B. (1980). Instructionally-based training in self-control: Behavior-specific and generalized outcomes resulting from student-implemented self-modification projects. *Teaching of Psychology*, 7, 140–145.

Evaluates the effects of student-implemented self-management projects on student expectations and behavior-specific and generalized outcomes.

Rakos, R. F., & Grodek, M. V. (1984). An empirical evaluation of a behavioral self-management course in a college setting. *Teaching of Psychology*, 11, 157–162.

Compares the effects of a self-modification course and two control courses on the relevant performance of students.

Stevens, V. J. (1978). Increasing professional productivity while teaching full-time: A case study in self-control. *Teaching of Psychology*, 5, 203–205.

Evaluates the effects of record keeping and disclosure to significant others on the professional behavior of a university professor.

Tasto, D. L. (1976). On the teaching of a self-modification course. *Teaching of Psychology*, 3, 174–177. Describes a course for assisting students in addressing personal problems through behavioral self-modification.

Worthington, E. L. (1979). Behavioral self-control and the contractual program. *Teaching of Psychology*, 6, 91–94.

Evaluates the effects of self-modification projects on performance and emotional reactions to target behaviors by undergraduate students.

Worthington, E. L. (1985). Increasing the accuracy of data collected by undergraduate psychology students from a college class. *Teaching of Psychology*, 12, 50–51.

Describes a method for increasing the amount of accurate and authentic data collected by undergraduate students for a course involving behavioral self-modification projects.

Research Supervision

Gant, G. D., Dillon, M. J., & Malott, R. W. (1980). A behavioral system for supervising undergraduate research. *Teaching of Psychology*, 7, 89–92.

Evaluates a system for supervising the performance of undergraduate research assistants in the completion of research-oriented tasks.

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Evaluates a system for supervising the thesis and dissertation progress of psychology graduate students that includes weekly meetings, task specification, feedback, and incentive interventions.

Interviews with Prominent Behavioral Psychologists

Bosack, T. N. (2002). The roots and evolution of child psychology: An

interview with Lewis Lipsitt. *Teaching of Psychology*, 29, 255–259.

Buskist, W. (2000). Teaching behavior analysis and psychology in a social context: An interview with Peter Harzem. *Teaching of Psychology*, 27, 149–154.

Freeman, J. E. (1997). Pavlov in the classroom: An interview with Robert A. Rescorla. *Teaching of Psychology*, 24, 283–286.