

Education 320

Educational Psychology: Learning and Instruction

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What It's About

This course describes and contrasts contemporary theories of learning and motivation as stepping stones to a theory of instruction. Its goal is to provide students with the ability to analyze curriculum materials and models of teaching, and to build these materials and models, using alternative principles of learning as facets for this analysis. An outline of the course is provided (on reverse).

Who Might Take It

Students who favor psychological views of educational practice will be especially interested in this course. Psychology majors and minors can use this course to extend their studies to include the instructional setting as a context for research on learning. Prospective teachers will gain a solid perspective for analyzing and evaluating instructional practice from this course.

Education 220 or its equivalent is a prerequisite. Students with credit for Education 421 may not take this course for further credit.

Course Requirements

1. Three brief quizzes. (10 points each, total 30 points).
2. Analysis of a research article in terms of alternative theoretical perspectives for describing the teaching environment being investigated. Students will choose an article from a list provided by the professor. (20 points).
3. A term paper analyzing a curriculum package, model of teaching, or teacher's actual lessons in terms of theoretical principles of learning and instruction. (50 points).
4. Class presentation based on your term paper. (no evaluation)

Required Texts

Bandura, A. Social Learning Theory. Prentice-Hall, 1977.

Covington, M.V. & Beery, R.G. Self-worth and School Learning. Holt, Rinehart, and Winston, 1976.

Tarpy, R.M. & Mayer, R.E. Foundations of Learning and Memory. Scott, Foresman, 1978.

cont'd.

Nota Bene

This course assumes a basic, introductory-level knowledge of models of learning and motivation. If you feel a bit rusty on these topics, read or review these chapter(s) in an introductory-level text on educational psychology. Or, chat with me to see whether you need less or more review.

Outline of Topics

- A. The nature of instruction
 - 1. Goals for a theory of instruction
 - 2. Characteristics of a theory of instruction
- B. Respondent learning theory
 - 1. The model and its principles
 - 2. Applications to instruction
- C. Operant learning theory
 - 1. The model and basic principles of acquisition
 - 2. Aversion, extinction, generalization, discrimination
 - 3. Cognitive behavior modification
 - 4. Social and conceptual instruction via operant theory
- D. Information processing theory
 - 1. The model and basic processes
 - 2. Acquisition - attention, perception, and meaning
 - 3. Retrieval - cues, transfer, and answering questions
 - 4. Instructional principles
- E. Social learning theory
 - 1. The model and basic processes
 - 2. Expectancy learning and cognitive control
 - 3. Incentives and external, vicarious, and self-reinforcement
 - 4. Instructing for concepts and attitudes
- F. Motivation and Learning
 - 1. Overview of systems of motivation
 - 2. Self-perception and attribution theories
 - 3. Approach and avoidance in instructional settings.

Education 320 Educational Psychology: Theory and Research on Instruction.

Overview of Instructional Psychology

1. Begetting the discipline
 - a. Instructional psychology and psychology.
 - b. "Researchable" topics: attending, organizing, responding and learning.
 - c. Scientific vs. social contexts for research.
2. Background
 - a. A brief history of instructional psychology.
 - b. Varieties of instruction.

Information Processing Views of Instruction

1. Foundations
 - a. Associational models of learning (list and PA acquisition, interference theory of forgetting).
 - b. Concept recognition and memory processing models (CS and STM processing view).
2. Contemporary theory and research
 - a. structural processing models (Gagne).
 - b. dynamic processing models (Smith, Mayer & Greeno, Winne & Marx percept).
3. Curriculum specific theory and research
 - a. Mathematics, science.
 - b. Reading

Operant Views of Instruction

1. Foundations
 - a. Radical operant theory.
 - b. "Mediated" operant theory.
2. Contemporary theory and research
 - a. Direct behavior modification.
 - b. Social learning models and context effects.
3. Curriculum specific theory and research
 - a. DISTAR instructional model.
 - b. Programmed learning and computer-assisted instructional models.

APPENDIX A

Current library holdings which supplement the material presented in Education 320, Educational Psychology: Theory and Research on Instruction are extensive. Listed below are representative text and reference books selected from well over 100 offerings. Library acquisitions pertinent to the content of this course are regularly updated on the basis of suggestions by members of the Faculty of Education.

- Ausubel, D. P. Educational Psychology: A Cognitive View.
Becker, W. C. & Engelmann, S. Teaching I: Classroom Management.
Becker, W. C. & Engelmann, S. Teaching II: Cognitive Learning and Instruction.
Gage, N. L. (Ed.) The Psychology of Teaching Methods.
Gagné, R. M. The Conditions of Learning.
Gagné, R. M. & Briggs, L. J. Principles of Instructional Design.
Klausmeier, H. J., Ghatla, E. S., & Frayer, D. A. Conceptual Learning and Development.
Siegel, L. (Ed.) Instruction: Some Contemporary Viewpoints.
Smith, F. Comprehension and Learning.
Stevenson, H. W. Children's Learning.
Thoresen, C. (Ed.) Behavior Modification in Education.
Yee, A. H. (Ed.) Social Interaction in Educational Settings.

In addition to the preceding books, the library also receives volumes in several annual series of professional reviews. Included among these are:

- Annual Review of Psychology; tri-yearly chapters on instructional psychology, thinking and concept formation, study of small groups.
The Psychology of Learning and Motivation.
Review of Research in Education.

Beyond the aforementioned materials, the library also subscribes to a host of professional journals which contain research reports and review articles directly relevant to this course. Representative examples are:

- Instructional Science.
Journal of Applied Behavior Analysis.
Journal of Educational Psychology.
Journal of Experimental Education.
Review of Educational Research.