

A photograph of a classroom. In the foreground, a young boy with dark skin is sitting at a desk, looking thoughtful with his hand to his chin. To his right, a young girl with red hair is leaning over her desk, smiling and raising her hand. In the background, another girl is standing near a chalkboard. The chalkboard has some math problems written on it, including $\frac{13}{2} + \frac{7}{9}$ and $\frac{4}{5} - \frac{1}{6}$. The overall scene is bright and positive, representing a learning environment.

Chapter 1

***Applying
Psychology
to Teaching***



Overview

- What is Educational Psychology?
- How Will Learning About Educational Psychology Help You Be a Better Teacher?
- The Nature and Values of Science
- Complicating Factors in the Study of Behavior and Thought Processes
- Good Teaching Is Partly an Art and Partly a Science
- Reflective Teaching: A Process to Help You Grow From Novice to Expert

What is Educational Psychology?

- Educational psychology is ...“a scientific discipline that uses psychological constructs and research methods to understand how the various characteristics of students, teachers, learning tasks, and educational settings interact to produce the everyday behaviors we see in school settings.”

How Will Learning About Educational Psychology Help You Be a Better Teacher?

- Teaching Is a Complex Enterprise
 - Educational psychology provides information about the many factors that affect teaching and learning
- Research That Informs Teachers
 - Educational psychology offers useful and tested ideas for improving instruction
- Coursework and Competence
 - Educational psychology helps prepare teachers to be effective

Teaching is a Complex Enterprise

- Professional teaching standards have been developed and are based on five propositions:
 - Teachers are committed to students and their learning
 - Teachers know the subjects they teach and how to teach those subjects to students
 - Teachers are responsible for managing and monitoring student learning
 - Teachers think systematically about their practice and learn from experience
 - Teachers are members of learning communities (National Board for Professional Teaching Standards, 1994)

Research in Educational Psychology Informs Teaching

- **Examples:**
 - Use more advanced students to tutor less advanced students
 - Give positive reinforcement and corrective feedback to students
 - Communicate to students about expectations
 - Require students to respond to higher-order questions
 - Provide students with cues about the upcoming tasks

Research in Educational Psychology Informs Teaching

- **Examples continued:**
 - Teach students how to monitor and improve their own learning efforts
 - Know students' misconceptions
 - Create learning situations where students customize information and problems for themselves
 - Accept responsibility for student outcomes
 - Show students how to cooperate

Coursework and Competence

- Teachers who have had relevant coursework in education and psychology are likely to be more competent and satisfied with their training than teachers who lack such coursework

Video: Teaching as a Profession: What Defines Effective Teaching





The Nature and Values of Science

Unsystematic Observation Vs. Systematic Observation

Limitations of Unsystematic Observation

- May draw false conclusions because alternative explanations are not considered or idiosyncratic factors are given too much importance
- Retaining students in a grade is an example of a practice that results from unsystematic observation

Strengths of Scientific Observation

- A systematic, scientific approach to studying educational problems is characterized by:
 - a representative sample of subjects
 - control of non-relevant variables
 - objectivity
 - published procedures and results
 - replication by others

Complicating Factors in the Study of Behavior and Thought Processes

- The Limited Focus of Research
- The Complexity of Teaching and Learning
- Selection and Interpretation of Data
- New Findings Mean Revised Ideas

Good Teaching is Partly an Art and Partly a Science

- Teaching as an Art
 - Motives, beliefs, emotions, values, flexibility
- Teaching as a Science
 - Usable body of research findings

Good Teaching is Partly an Art and Partly a Science

- The Teacher as Artistic Scholar: Combining the Art and Science of Teaching
 - Research evidence describes what *has worked* under particular conditions
 - Research cannot say conclusively what *will work* in any given situation because of changing circumstances
 - The artistic scholar strikes a balance between the art and science of teaching by using research findings as ideas that might be applicable to a particular group of students at a particular point in time



Reflective Teaching

- Reflective teachers possess:
 - An introspective orientation
 - An open-minded but questioning attitude about educational theories and practices
 - The willingness to take responsibility for your decisions and actions

Ways to Become a Reflective Teacher

- Use the Suggestions for Teaching from each chapter to gather ideas
- Try the Suggestions out in your teaching
- Use the Journal Entries from each chapter to help guide observation notes of yourself and your students
- Analyze the observation notes for strengths and weaknesses
- After each teaching episode, think about and/or write down an assessment of how you did