Educational Psychology: A Tool for Effective Teaching

Exploring Educational Psychology

- Historical Background
- Teaching Approaches
- Research Methods
John Dewey (1859-1952)

- Viewed the child as an active learner
- Argued children learn best by doing
- Emphasized the child’s adaptation to the environment
- Pushed for competent education for all children
E. L. Thorndike (1874-1949)

- Initiated an emphasis on assessment and measurement of learning
- Promoted the idea that educational psychology must have a scientific base and that measurement should be a central focus
The Behavioral Approach

- B.F. Skinner (1938)
- Psychology as the science of observable behavior and controlling conditions
- Educational goals: Determine the best conditions for learning
The Cognitive Revolution

- The Computer Metaphor
- Attention, memory, problem solving
- Educational goals: Effective information processing
The Social Context of Learning

- Cognitive Apprenticeship
- Modeling of skills
- Cooperative learning in the classroom
- Educational goals: Enhance learning through guided experience on intellectual tasks
Teaching Approaches

The Constructivist Approach:

- A learner-centered approach that emphasizes the individual actively constructing their knowledge and understanding
- Teachers guide children’s exploration of their world, fostering discovery learning
- An emphasis on collaboration – children working with each other in their efforts to know and understand
Teaching Approaches

The Direct Instruction Approach:

- A structured, teacher-centered approach characterized by teacher direction and control
- An important goal is to maximize student learning time
- Effective teachers use both a constructivist and direct instruction approach depending on the circumstances and individual student needs
Teaching Approaches

Differentiated Instruction:

- Approach recognizes individual variations in knowledge, readiness, interests, etc.
- Emphasizes tailoring assignments to meet students’ needs and abilities
- Advocates discovering “zones” or “ballparks” in which students in a classroom cluster
How to promote self-motivated students?

- Provide real-world learning opportunities
- Select learning opportunities of optimal difficulty and novelty
- Allow students to make choices in line with their personal interests
- Give students the opportunity to think creatively and deeply about projects
Research Methods

Descriptive Research

- Observations
  - Laboratory
  - Naturalistic observation
- Interviews and questionnaires
- Standardized tests
- Case Studies
Research Methods

Correlational Research

- Measures the strength of a relation between two variables
- Does **Not** establish causal relation

Experimental Research

- Manipulates one or more variables believed to influence behavior while all other factors are controlled
- **Does establish causal relation**
Experimental Research

Independent variable:
The manipulated, influential experimental factor.

Dependent variable:
The factor that is measured in an experiment.

Experimental group:
The group whose experience is manipulated.

Control group:
A comparison group, no manipulation.

Random assignment:
Participants are assigned to groups by chance.