CHAPTER 1
THE STUDY OF HUMAN DEVELOPMENT
Formal Study of Human Development

• Human Development:
  – The Scientific Study of How Humans Develop

  ▫ Main Questions:
    ▫ How do people change throughout their lives?
    ▫ What characteristics remain stable?
What Lies Ahead

• Book is organized chronologically.
  – Prenatal period (conception to birth)
  – Infancy (birth to age 2)
  – Early childhood (2 to 6 years old)
  – Middle childhood (6 through 11 years old)
  – Adolescence (11 through 20 years old)
  – Young adulthood (20 through 40 years old)
  – Middle adulthood (40 through 65 years old)
  – Later adulthood (from 65 years old)
Domains of Development
Change & Stability

- **Physical Development**
  - Body, brain, senses, motor skills, & health

- **Cognitive Development**
  - Learning, memory, moral reasoning, language, thinking, & creativity

- **Psychosocial Development**
  - Personality, emotional life, & relationships
Physical Development
Body, brain, senses, motor skills, & health

Cognitive Development
- Learning, memory,
- moral reasoning,
- language, thinking, & creativity

Psychosocial
- Personality, emotional life, & relationship
Why Study Development?

• Developmentalists have four related goals:
  – To describe what people are like at different ages and how they change as a result of age
  – To explain what causes developmental change
  – To predict what an individual will be like at a later point in development
  – To intervene or use knowledge to enhance the quality of individual lives
Basic Questions about Development

• Which aspects of development
  – are universal, and which vary from one individual or group to the next?
  – are continuous, and which are not?
  – are more or less fixed (like marble) and difficult to change, and which are relatively malleable and easy to change (like clay)?

• What makes development happen?
Guiding Principles

• Development results from constant interplay of biology and the environment.
• Development occurs in multilayered context.
• Development is a dynamic, reciprocal process.
• Development is cumulative.
• Development occurs throughout the life-span.
Theories of Development

• Classic Theories
  – Psychoanalytic theory
    • Freud’s theory of psychosexual development
  – Erikson’s theory of psychosocial development
  – Learning theory
    • Behaviorism
    • Classical conditioning
    • Operant conditioning
    • Social learning theory
  – Cognitive-Developmental theory
    • Qualitative changes
Theories of Development

• Contemporary Theories
  – Ecological perspective
  – Sociocultural perspective
  – Behavioral genetics
  – Evolutionary perspective
  – Dynamic systems theory
The Scientific Study of Development

• The scientific method:
  – A systematic, step-by-step procedure for testing ideas.

• Research methods
  – Observational research
    • Naturalistic observation
    • Participant observation
    • Structured observation
  – Self-reports
  – Standardized tests
    • Reliability
    • Validity
Research Methods and Designs

• **Theories**
  – Sets of statements that propose general principles of development

• Predictions or **Hypotheses**
  – An educated guess that is testable by data collection and analysis
Video: Development in Multi-Racial Individuals
Figure 1.2: The Scientific Method

1. Formulate a question
   Are mothers more likely to discipline boys than girls?

2. Develop a hypothesis
   Mothers are more likely to discipline boys than girls.

3. Conduct a study to test the hypothesis
   Give mothers of boys and mothers of girls a questionnaire on how they handle disobedience.

4. Analyze the data
   Carefully compare how the two groups of mothers responded.

5. Make the findings public
   Publish the conclusions and research methods.
The Scientific Method

• Research Design
  – Case studies
  – Correlational studies
  – Experiments
Figure 1.3: Positive and Negative Correlations

Positive correlation: Parent’s IQ scores vs. Children’s IQ scores

Negative correlation: Watching TV vs. School grades
The Scientific Method

• Studying change over time
  – Longitudinal research
  – Cross-sectional studies
  – Accelerated longitudinal design
Figure 1.4: Research Designs for Studies of Development
Research Ethics

• Rule 1: Nonharmful procedures
• Rule 2: Informed consent
• Rule 3: Confidentiality
• Rule 4: Debriefing
• Rule 5: Implications
• Rule 6: Misconduct
Developmental Science in the Real World

• Study of child development provides advice to:
  – Parents
  – Teachers
  – Health-care practitioners
  – Program developers
  – Policy-makers
  – Business and industry leaders