The study of human development is the science that seeks to understand

• how and why all kinds of people change over time

• how and why they remain the same

  Study of Human Development

  Linear Change: a process in which change occurs in a gradual, regular, predictable pattern

Development rarely follows the linear change

Butterfly and Warfare

  Dynamic systems
  - A process of continual changes within a person or group in which each change is connected systematically to every other development in each individual and every society

  Butterfly effect
  - The idea that a small action or event may set off a series of changes that culminate in a major event
The Ecological Model

• The Ecological Model (Bronfenbrenner)
  • Chronosystem - TIME
  • Microsystem - Family, school, church, peers, media
  • Mesosystem - linkages between various Microsystems:
    • parent-teacher conference
    • Parent helps w/ homework
    • Friends to the house
    • Community helps schools

Exosystem
• Exosystem- Community, public systems, mass media, parent’s job, parental support group

Macrosystem
• Macrosystem - Cultural values, social conditions, national customs, economic patterns, religious affiliations

A Life-Span Perspective

• The view of human development that:
  takes into account all phases of life
  not just childhood or adulthood

• reciprocal connection between the study of childhood and adulthood

• continuity - biological sex, family of origin, etc.

• discontinuity - infant lang. skills vs. adult health habits.

A Life-Span Perspective

• Multidirectional - nonlinear progression

• Multicontextual - a number of contexts

• Multicultural - many cultural settings

• Multidisciplinary - many academic disciplines contribute data

• Plastic - change through the life span

Plasticity
• Human characteristics can be molded into different forms & shapes.
• Provides HOPE and Motivation
• Yet, durability is maintained.
• People cannot become what we are not. (ex. Genes, experiences.)

Three Domains of Development

• **Biosocial:**
  • Brain
  • Body
  • Genetics
  • Nutrition
  • Motor skills
  • Social Influence

Three Domains of Development

• **Cognitive:**
  • thinking
  • language
  • perception
  • Imagination
  • Memory
  • Language
  • Education

Three Domains of Development

• **Psychosocial:**
  • Emotions
  • Personality
  • Interpersonal relationships
    • Temperament
    • Family Structure
    • Gender Roles
    • Social Context
The Contexts of Development

• Development encompasses three contexts:
  - **Historical** - cohorts, social constructions
    • **Cohort**: people who share birth year or decade
    • **Social constructions**: an idea that is built more on shared perceptions of social order than on objective reality

(COMPUTERS)

The Contexts of Development

**Culture** affects development in a multitude of interrelated ways

Feeding / Discipline / Education

- Emphasis is more on **VALUES, BEHAVIORS, and ATTITUDES**, than on the specific foods, clothes, and objects of daily life.

The Contexts of Development

- **Socioeconomic Status** - SES (social class)
  • Income
  • Education
  • Residence
  • Occupation

• **Poverty Line**: the minimum annual income a family needs to pay for basic necessities.
  2002 : (Family of Four - 18,100)

Economics and Ethnic Groups

• An **ethnic group** is a collection of people who share certain attributes, such as ancestry, national origin, religion and / or language, and as a result, tend to have similar beliefs, values and cultural experiences

• **RACE**: biological traits that people use to distinguish one group from another
• Developmental Study as a Science

• Scientific method - general way to seek evidence to answer question
  - 1. Formulate a research question
  - 2. Develop a hypothesis
  - 3. Test the hypothesis
  - 4. Draw conclusions
  - 5. Make findings available
    - Replication

Some Complications

• Variables
  - Nature vs. nurture: How much and which aspects of development are affected by genes and how much and which aspects by environment
  - Continuity vs. discontinuity: How much of human growth builds smoothly and gradually on previous development, how much transformation occurs suddenly?
  - Difference vs. deficit: When a person develops differently from most other people, when is that difference considered diversity to be celebrated and when is it considered a problem to be corrected?
  - Other
    • Religion/science
    • Individual/society

Research Methods

• Observation
  - Scientific observation - observing and recording (unbiased) in a systematic way what people do
    - Naturalistic
    - Laboratory
  - Limit - does not indicate what causes behavior we observe
Correlation

- **Correlation** exists between two variables if one is likely/unlikely to occur when the other occurs.

The Experiment

- Experiment - investigation designed to untangle cause from effect
  - **Independent variable** - imposed treatment or special condition
  - **Dependent variable** - specific behavior being studied

The Experiment

- **Experimental Group**: in an experiment, the subjects who are given a particular treatment.

- **Comparison group** (control Group): the subjects are given special treatment but who similar to the experimental group in other relevant ways.

Other Research Methods

- **Survey** - information collected from personal interviews, questionnaires, etc.

- **Case study** - intensive study of one individual or situation

Studying Changes Over Time

- **Cross-sectional research** studies groups that differ in age but share other important characteristics (education, SES, ethnicity)

- **Longitudinal research** studies individuals over a long period of time

- **Cross-sequential research** studies several groups of people of different ages, then follows those groups longitudinally
Quick Review of Scientific Methods

• A researcher wants to study people’s fantasies; they would most likely use which method?
• A researcher has just compiled a description of Einstein, including family background, life history-Which method is being employed?
• Which type of observation is used if the researchers study a group of monkeys in a jungle habitat?

Investigating Nursery Rhymes

HICKORY DICKORY DOCK

Hickory Dickory Dock,
  The mouse ran up the clock,
  The clock struck one 1, the mouse ran down
Hickory Dickory Dock!

Hickory Dickory Dock,

Little Miss Muffet

Little Miss Muffet sat on a tuffet,
Eating her curds and whey.
Along came a big spider,
He sat down beside her.
And frightened Miss Muffet away!

JACK AND JILL

Jack and Jill went up the hill,
To fetch a pail of water.
Jack fell down,
And broke his crown;
And Jill came tumbling after.

Ethics and Science

• Code of ethics: a set of moral principles that is formally adopted by a group or organization

In developmental studies, the need to protect the participants is especially acute when they are children
Ethics and Science

- General principles
  - Do no harm
  - Secure informed consent
  - Explain research procedures
  - Keep information of participants confidential
  - Report research findings honestly and carefully
    Base generalizations on more than one study

Implications of Research

- Deliberate or accidental deception?

- Misinterpretation?

- Replicable?

MOZART

What Should We Study

- Are scientists studying issues that are crucial to human development?
  - Infant growth
  - Human sexual urges and actions to prevent STDs, pregnancy, and sexual abuse and to cure infertility
  - Stress, poverty, and prejudice
  - Children’s anger

Inferring you Instructor

- How old is your instructor?
- What is your instructor’s marital status?
- What color eyes does the instructor have?
- What is your instructor’s favorite color?
- What is the instructor’s astrological sign?