Boundless.com ▾

🔍 **Search**

▾   **Subjects** ▾   **Contribute**   ➡ **Log in**   ➕ **Sign up**

Concept Version 14
Created by Boundless

| Watch | 1 | Favorite | 0 |

Assign Concept Reading
View Quiz
View PowerPoint Template

Developmental psychology uses scientific research methods to study the changes that occur in human beings over the course of their lives.

LEARNING OBJECTIVE [edit]

- Assess the various scientific research methods for investigating human development

KEY POINTS [edit]

- To study changes in individuals over time, developmental psychologists use systematic observation; self-reports, clinical interviews, or structured observation; case studies; and ethnography or participant observation.

- Three common research methods are the experimental method (which investigates cause and effect), correlational method (which explores relationships between variables), and the case study approach (which provides in-depth information about a particular case).

- Regardless of whether studies employ the experimental, correlational, or case study methodology, they can use research designs or logical frameworks to make key comparisons within research studies.

- Common research designs include longitudinal, cross-sectional, sequential, and microgenetic designs.

TERMS [edit]

- cohort

  A demographic grouping of people, especially those in a defined age group, or sharing a common characteristic.

- Longitudinal

Sampling data over time rather than merely once.

- ethnography

  The branch of anthropology that scientifically describes specific human cultures and societies.

- correlation

  One of the several measures of the linear statistical relationship between two random variables, indicating the strength of the relationship but not necessarily the causation.

Give us feedback on this content:

FULL TEXT [edit]

Research Methods

Developmental psychology employs many of the research methods used in other areas of psychology; however, infants and children cannot be tested in the same ways as adults. To study changes in individuals over time, developmental psychologists use systematic observation, including naturalistic or structured observation; self-reports, which could be clinical interviews or structured observation; clinical or case study methods; and ethnography or participant observation. Three research methods used include the *experimental, correlational,* and *case study approach.*

Experimental Research

The experimental method involves actual manipulation of treatments, circumstances, or events to which the participant or subject is exposed. This design points to cause-and-effect relationships and thus allows for strong inferences to be made about causal relationships between the manipulation of one or more independent variables and subsequent subject behavior. A limit to this method is that the artificial environment in which the experiment is conducted may not be applicable to the general population.

Correlational Research

The correlational method explores the relationship between two or more events by gathering information about these variables *without* researcher intervention. The advantage of using a correlational design is that it estimates the strength of a relationship among variables in the natural environment. However, the limitation is that it can only indicate that a relationship exists between the variables; it cannot determine which one *caused* the other.

Case Study

In a case study, developmental psychologists collect a great deal of information from one individual in order to better understand physical and psychological changes over his or her lifespan. Data can be collected through the use of interviews, structured questionnaires, observation, and test scores. This particular approach is an excellent way to better understand individuals who are exceptional in some way, but it is especially prone to researcher bias in interpretation, and it is difficult to generalize conclusions to the larger population.

Research Designs

Regardless of whether studies employ the experimental, correlational, or case study methodology, they can use research designs or logical frameworks to make key comparisons within research studies. These include *longitudinal, cross-sectional, sequential,* and *microgenetic designs*.

Longitudinal Design

In a longitudinal study, a researcher observes many individuals born at or around the same time (a cohort) and carries out new observations as members of the cohort age. This method can be used to draw conclusions about which types of development are universal (or normative) and occur in most members of a cohort. Researchers may also observe ways that development varies between individuals and hypothesize the causes of such variation. Longitudinal studies often require large amounts of time and funding, making them unfeasible in some situations. Also, because members of a cohort all experience historical events unique to their generation, apparently normative developmental trends may only be universal to the cohort itself.

Longitudinal Designs

Children experience rapid physical changes through infancy and early childhood. In a longitudinal study, a researcher observes many individuals born at or around the same time and observes them as they age. (credit "left": modification of work by Kerry Ceszyk; credit "middle-left": modification of work by Kristi Fausel; credit "middle-right": modification of work by "devinf"/Flickr; credit "right": modification of work by Rose Spielman)

Cross-Sectional Design

In a cross-sectional study, a researcher observes differences between individuals of different ages at the same time. This generally requires fewer resources than the longitudinal method, and because the individuals come from different cohorts, shared historical events are not as unique. However, this method may not be the most effective way to study differences between participants, as these differences may result not from their different ages but from their exposure to different historical events.

Cross-Sequential Design

Cross-sequential designs combine both longitudinal and cross-sectional design methodologies. A researcher observes members of different birth cohorts at the same time, and then tracks all participants over time, charting changes in the groups. While much more resource-intensive, this method results in a clearer distinction between changes that can be attributed to individual or historical environment and changes that are truly universal.

Microgenetic Design

Microgenetic design studies the same cohort over a short period of time. In contrast to longitudinal and cross-sectional designs, which provide broad outlines of the process of change, microgenetic designs provide an in-depth analysis of children's behavior while it is changing.

Give us feedback on this content:

Assign Concept Reading

Assign just this concept or entire chapters to your class for free.

PREV CONCEPT   NEXT CONCEPT

Create Question
Referenced in **1 quiz question**

Developmental psychologists utilize which of the following:

KEY TERM REFERENCE

Interpretation — **Appears in these related concepts:** Learning to Listen, Heuristics and Cognitive Biases, and Interpretation

bias — **Appears in these related concepts:** Gender Bias, Context of Culture and Gender, and Social Psychology

case study — **Appears in these related concepts:** Psychology and the Scientific Method, Principles of Writing in the Sciences, and Case Studies

clinical — **Appears in these related concepts:** Overview of Personality Assessment, Validity and Reliability of Personality Assessments, and Introduction to Psychotherapy

experiment — **Appears in these related concepts:** Fundamentals of Probability, Descriptive and Correlational Statistics, and Primary Market Research

independent variable — **Appears in these related concepts:** Graphical Representations of Functions, Converting between Exponential and Logarithmic Equations, and What is a Quadratic Function?

inference — **Appears in these related concepts:** Descriptive Research, Relationships and Families in Adulthood, and Reasoning and Inference

intervention — **Appears in these related concepts:** Cleveland and the Special Interests, Determinants of Supply, and Preventing Psychological Disorders

mores — **Appears in these related concepts:** Folkways and Mores, Counterculture, and Human Sexuality and Culture

normative — **Appears in these related concepts:** Types of Organizational Culture, Why Study Organizational Theory?, and Personality Testing in the Workplace

population — **Appears in these related concepts:** The Functionalist Perspective on Deviance, Quorum Sensing, and Basic Inferential Statistics

SOURCES

Boundless vets and curates high-quality, openly licensed content from around the Internet. This particular resource used the following sources:

"Boundless."
http://www.boundless.com/
Boundless Learning CC BY-SA 3.0.

"Developmental psychology."
http://en.wikipedia.org/wiki/Developmental_psychology
WIKIPEDIA CC BY-SA 3.0.

"Microgenetic design."
http://en.wikipedia.org/wiki/Microgenetic_design

WIKIPEDIA CC BY-SA 3.0.

"ethnography."
http://en.wiktionary.org/wiki/ethnography
Wiktionary CC BY-SA 3.0.

"Longitudinal."
http://en.wiktionary.org/wiki/Longitudinal
Wiktionary CC BY-SA 3.0.

"correlation."
http://en.wiktionary.org/wiki/correlation
Wiktionary CC BY-SA 3.0.

"cohort."
http://en.wiktionary.org/wiki/cohort
Wiktionary CC BY-SA 3.0.

"OpenStax College, Psychology. August 4, 2015."
http://cnx.org/contents/4abf04bf-93a0-45c3-9cbc-2cefd46e68cc@4.100:50/Psychology
OpenStax CNX CC BY 4.0.

"CNX Psychology, Psychology. August 4, 2015."
http://cnx.org/contents/4abf04bf-93a0-45c3-9cbc-2cefd46e68cc@4.100:52/Psychology
OpenStax CNX CC BY 4.0.

CITE THIS SOURCE

[||| Cite!]

Subjects

- Accounting
- Algebra
- Art History
- Biology
- Business
- Calculus
- Chemistry
- Communications
- Economics
- Finance
- Management
- Marketing
- Microbiology
- Physics
- Physiology
- Political Science
- Psychology
- Sociology
- Statistics
- U.S. History
- World History
- Writing