

Introduction to Psychology

(1) Definition

- Psychology = Psyche + Science
- Definition of Psychology
 - *Science* : systematic methods of science to observe human behavior.
 - *Behavior* : human behaviors that can be directly observed.
 - *Mental Process* : human behaviors that cannot be directly observed.
- Similarity between scientists and psychologists is the “critical thinking” process.

(2) Roots and Early Scientific Approaches of Psychology

- Psychology → the integration between Philosophy, Biology and Physiology
- Rene Descartes (1596 – 1650) → the mind and the body were completely separate. However, Descartes focused his attention on the mind.
- Wilhelm Wundt (1832 – 1920) → Founding father of modern psychology.
- Wilhelm Wundt measured human behavior through physiological measurement.

Structuralism

- Based on the experiment of Wilhelm Wundt.

- The study of structures of mental processes.
- Focused mainly on sensation and perception.
- The scientific method for Structuralism is introspection (“looking inside”), which is systematic self-reports.

Functionalism

- Based on the idea of William James’s interest in the school of pragmatism.
- The study of how the purposes or functions of the mind.
- The influence of Charles Darwin’s theory of Evolutionary
- The mind is a “stream of consciousness” (view the mind as fluid and flexible, able to adaptation).

(3) Contemporary Approaches to Psychology

Today, there are **briefly** eight different main approaches in psychology.

- The Biological Approach

Focuses on the body, especially the brain and nervous system, and its connection to the functions of psychological processes.

- The Behavioral Approach

Focuses on the interactions of observable behavioral responses and the environmental determinants.

- The Psychodynamic Approach

Focuses on unconscious thought, the conflict between biological instincts and society's demands, and early family responses.

- The Humanistic Approach

Focuses on a person's positive qualities, the capacity for positive growth, and the freedom to choose any destiny.

- The Cognitive Approach

Focuses on the mental processes involved in knowing (how we direct our attention, how we perceive, how we remember, and how we think and solve problems).

- The Sociocultural Approach

Explores the cultural context in which the social and cultural environments influence behavior.

- The Evolutionary Approach

Focuses on the evolutionary ideas as the basis for explaining specific human behaviors.

- The Positive Psychology Approach

Focuses on human experience of optimal capacities for love and work, and positive group and civic values.

(4) Areas of Specialization and Careers in Psychology

Today, there are **many** specialties in the field of psychology. Psychologists in one field may collaborate with researches in another.

- Physiological Psychology and Behavioral Neuroscience

Emphasize on physical processes that underlie mental processes.

- Developmental Psychology

Emphasizes on biological and environmental factors

- Sensation and Perception

Emphasize on physical systems and psychological processes

- Cognitive Psychology

Emphasizes on the importance of attentions, consciousness, information processing and memory.

- Learning

Emphasizes on the knowledge of how behaviors change through adaptive and changing circumstances.

- Motivation and Emotion

Emphasize on how human attain a difficult goal and the physiological and brain processes that underlie emotional experience.

- Personality Psychology

Emphasizes on the study of human characteristics.

- Social Psychology

Emphasizes on the influence of groups on thinking processes and behaviors.

- Industrial and Organizational Psychology

Emphasize on the psychology in workplace.

- Clinical and Counseling Psychology

Emphasize on the improvement of human lives with mental problems.

- Health Psychology

Emphasizes on psychological factors, lifestyles, and the nature of the healthcare delivery system.

- Community Psychology

Concerning with how to provide the accessible care for people with psychological problems.

- School and Educational Psychology

Emphasize on children's learning and adjustment in school.

- Environmental Psychology

Emphasizes on interaction between people and physical environment.

- Psychology of Women

Emphasizes on psychological, social and cultural influences on women's development and behavior.

- Forensic Psychology

Emphasizes on psychological concepts to the legal system.

- Sport Psychology

Emphasized on psychology's principles to improving sport performance and enjoying sport participation.

- Cross-Cultural Psychology

Emphasizes on cultural role in understanding behavior, thought, and emotion.

Research Method

(1) Psychology's Scientific Method

- Characteristics of scientific method
 - Curiosity
 - Skepticism
 - Objectivity
 - Thinking critically
- Collaboration
 - Peer review
 - Conference
 - Meta-analysis

(2) Steps in scientific method

- Observing some phenomenon
 - Variables
 - Operational definition
- Formulating hypotheses and predictions
 - Hypothesis
 - Theory

- Testing through empirical research
 - Collecting data
 - Population and sample
 - Random sample
 - Analyzing data
- Drawing conclusions
 - Reliability
- Evaluating conclusion
 - Continuously

(3) Research settings

- Laboratory setting
- Natural setting

(4) Types of research

- Descriptive research
 - Survey and interviews
 - Standardized tests
 - Case studies
- Correlational research
 - Positive and negative correlations

- Third variable problem (confound variable)
- Longitudinal design
- Experimental research
 - Random assignment
 - Independent and dependent variables
 - Experimental and control groups
 - Validity (ecological and internal validity)
 - Experimental bias
 - Research participant bias
 - Placebo effect
 - Double-blind experiment

(5) Analyzing and interpreting data

- Descriptive statistics
 - Measures of central tendency (Mean, Median, Mode)
 - Measures of dispersion (Range, Standard deviation)
- Inferential statistics
 - Provide statements of probability
 - Level of statistical significance

(6) Ethical principle of research

- Ethics of research with human participants
 - Freedom from coercion
 - Informed consent
 - Limited deception
 - Adequate debriefing
 - Confidentiality
- Ethics of research with nonhuman animals
 - Necessity
 - Health
 - Humane treatment

(7) How to be a successful informational receiver in psychology

- Distinguish between group results and individual needs
- Avoid overgeneralizing from a small sample
- Look for answers beyond a single study
- Avoid attributing causes where none have been found
- Consider the source of psychological information