

متون تخصصی ۱

Introduction to Psychology

1.1 Defining Psychology and Psychologists

Psychology is the study of behavior. Psychologists study both human and animal behavior as well as **overt** (external and observable) and **covert** (internal and nonobservable) behaviors.

The **goals of psychology** are to

- (1) describe behavior,
- (2) predict behavior,
- (3) explain behavior, and
- (4) control behavior.

Psychologists have either doctoral or masters-level degrees. A **doctoral degree** (Ph.D., Psy.D., or Ed.D.) is received after three to six years of post-undergraduate training in psychology. A **masters degree** (M.S. or M.A.) is granted after one to three years of post-undergraduate training in psychology. Some areas of psychological training at both the doctoral and masters degree levels require an additional year of **internship** or on-the-job training in a clinic, hospital, school, or business setting.

1.2 Major Subfields of Psychology Today

While in graduate school, psychologists are trained and specialize in one major subfield of psychology.

The majority of psychologists are either **Clinical** or **Counseling**

Psychologists, who study the causes, treatments, and diagnoses of behavioral, emotional, and mental health problems.

Cognitive Psychologists study internal thinking, such as the processing of information, memory, and concept formation.

Comparative Psychologists study and compare behaviors across different species of animals, including humans.

Developmental Psychologists study age-related changes in behavior from the prenatal period through old age. (Some examples include the study of how memory, language, or cognitive behaviors change with age.)

Educational Psychologists work on school-related issues such as designing curricula, teaching, or counseling methods that can be used in the schools.

Experimental Psychologists rely on scientific methods to conduct research in such areas as learning, memory, and sensation and perception.

Industrial or Organizational Psychologists generally work in business or industry on such problems as optimum working conditions, selecting employees, and marketing products.

School Psychologists work directly with students, teachers, or parents in the school setting. School psychologists test, counsel, and make recommendations about individual students who are referred because of learning, emotional, or behavioral concerns.

Social Psychologists study all aspects of social behavior and how people interact with other people. For instance, they study aggressive behavior, helping behavior, friendship formation, etc.

1.3 Historical Approaches to the Study of Psychology

Wilhelm Wundt (1832-1920) began the first experimental psychology laboratory in 1879 at the University of Leipzig, Germany. This occurred as a result of the merger of **philosophy** (questioning truth) and **physiology** (scientific analysis of living organisms). Wundt studied **introspection**, the careful analysis of one's own conscious experiences. Since 1879 there have been several historical approaches to the study of psychology:

Historical Approach (Associated names)	Description
Structuralism Edward Titchener (English, 1867-1927)	Examined the structure of the mind, analyzed structure and content of mental states by introspection, and was concerned with reducing experience to its basic parts.
Functionalism William James (American, 1842-1910)	Proposed the study of how the mind adapts us to our environment. Influenced by Charles Darwin's theories of evolution and natural selection. Felt conscious experience is adaptive and always changing.
Behaviorism Ivan Pavlov (Russian, 1849-1936) John B. Watson (American, 1878-1958) B. F. Skinner (American, 1904-1990)	Stressed the study of observable behavior, not unobservable consciousness.
Psychoanalysis Sigmund Freud (Austrian, 1856-1939)	Emphasized the study of unconscious mental processes; argued that people are driven by sexual urges and that most emotional conflicts date back to early childhood experiences.
Gestalt Max Wertheimer (German, 1880-1943)	Emphasized perception and that stimuli are perceived as whole entities rather than parts put together ("The whole may be greater than the sum of its parts.")
Humanistic Carl Rogers (American, 1902-1987) Abraham Maslow (American, 1908-1970)	Stressed that humans have enormous potential for personal growth. Emphasized importance of free will, the human ability to make choices, and the uniqueness of the individual.
Cognitive Jean Piaget (Swiss, 1896-1980)	Studied internal, mental representations that are used in perceiving, remembering, thinking, and understanding.

experimental group, meaning there are several manipulations of the independent variable. The **control group** of an experiment is not exposed to manipulation of the independent variable. The responses of subjects in the control group are compared to the responses of subjects in the experimental group(s) in order to determine if the independent variable(s) had any effect on the dependent variable.

Subjects usually are assigned to groups in an experiment based on **random assignment** that ensures that each participant had an equal chance of being assigned to any one of the groups. Random assignment helps guarantee that the groups were similar to one another with respect to important characteristics before the manipulation of the independent variable. When subjects are not randomly assigned to groups, it is referred to as **quasi-experiment**.

Subject bias occurs when research participants' behavior changes because they know they are being studied or because of their expectations. A **placebo** is an inactive substance given in the place of a drug in psychological research. A **placebo effect** occurs when a participant believes they are experiencing a change due to an administered drug which is really a placebo. **Observer or researcher bias** occurs when the expectations of the researcher influence what is recorded or measured. **Double-blind technique** is used to control for both subject and observer biases. In the double-blind technique, neither the subjects nor the researcher who is measuring the dependent variable know who is assigned to which group in an experiment.

A **single-subject experiment** involves the participation of only one subject. The independent variable is systematically changed over time, and the subject's behavior at one time is compared with the same subject's behavior at another time. In this case, time is used as the control.

1.4.2 Nonexperimental Methods

Nonexperimental methods of research do not include the systematic manipulation of variables by the researcher and thus cannot be used to discuss cause-and-effect relationships.

Correlational research involves measuring two (or more) vari-

1.4 Research Methods

Psychological research is based on the scientific method. The **scientific method** consists of

- (1) defining a research problem,
- (2) proposing a hypothesis and making predictions,
- (3) designing and conducting a research study,
- (4) analyzing the data, and
- (5) communicating the results and building theories of behavior.

A **sample** is a subset of a population selected to participate in the study. All of the participants in a research study make up the sample.

A **population** includes all members of a class or set from which a smaller sample may be drawn and about whom the researcher wants to draw conclusions.

A **random sample** is one in which every member of the population being studied has an equal chance of being picked for inclusion in the study.

A **biased sample** occurs when every member of a population does not have an equal chance of being chosen.

طبقاتی A **stratified sample** is one in which every relevant subgroup of the population is randomly selected in proportion to its size.

A **subject** is an individual who is actually participating in the research study.

Replications refer to research studies that are repeated, often under different conditions, in order to assure the reliability of the results.

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1.4.1 The Experiment

Psychologists use experiments to determine **cause-and-effect relationships**. An **experiment** requires that the researcher systematically manipulate or control one or more variables and then observe how the research subjects or participants respond to this manipulation. The variable that is manipulated is called the **independent variable**. The response that is measured after the manipulation of the independent variable is known as the **dependent variable**.

An experiment consists of at least two groups of subjects. The

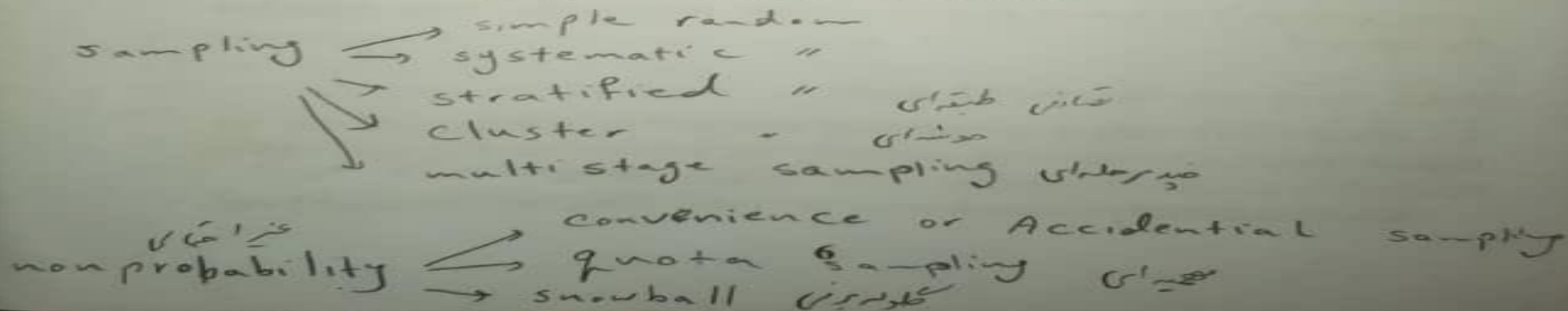
ables in order to determine if they are related. If the value of one variable increases in value as the other also increases in value, this is known as a **positive correlation**. A **negative correlation** occurs when there is an inverse relationship between the variables measured; as the value of one increases, the value of the other decreases.

A **correlation coefficient** is a number that represents the strength of the relationship between the variables measured. A correlation coefficient can range in value from 0 to 1. A **correlation coefficient of 0** indicates no relationship between the variables measured. A **correlation coefficient of 1** indicates a perfect relationship between the two variables: you can predict one variable perfectly by knowing the value of the other. Therefore, the closer a correlation coefficient is to 1, the stronger the relationship between the variables measured, and the closer a correlation coefficient is to 0, the weaker the relationship. Even if a strong correlational relationship is found, however, cause-and-effect conclusions *cannot* be made because there was no systematic manipulation by the researcher.

Naturalistic observation is a research method that occurs in a natural setting that has not been manipulated by the researcher. The researcher systematically observes and records what occurs in an unobstrusive manner. This is done so that the behavior of the subjects being tested is not altered. **Interobserver reliability** is the amount of agreement between two (or more) observers who simultaneously observe the same event.

A **case study** is an in-depth study of a single subject. It can include interviews, observations, and test results.

The **survey method** of collecting data requires the researcher to ask a group of people about behaviors, thoughts, or opinions. Data is collected through questionnaires or interviews.



1.4.3 Comparing Research Methods

Method	Strengths	Weaknesses
Experiment	Can make cause-and-effect relationships. Researcher has control.	Sampling errors. Often hard to generalize to real world.
Correlation	Can study real world behavior. Can determine relationships.	Cannot determine cause and effect.
Naturalistic Observation	Can gather information in its usual setting as it naturally occurs.	Cannot determine cause and effect. Observer bias possible.
Case Study	Intensive information can be gathered about individuals.	Cannot determine cause-and-effect. Expensive and time consuming. May not be able to generalize information gathered to others. Biased sample possible.
Survey	Large amounts of information can be gathered from many people in a relatively short period of time.	Cannot determine cause and effect. Biased sample possible. Response bias possible. Survey questions might not be reliable or valid.

1.4.4 Ethical Guidelines

The **American Psychological Association (APA)** has published ethical guidelines to follow when conducting psychological research with human subjects. Some important points from these guidelines include:

- Psychologists are responsible for the ethical conduct of research conducted by them or by others under their supervision.

Judgemental / purposive

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- Psychologists conduct research with due concern for the dignity and welfare of the participants.
- Psychologists inform participants that they are free to participate or to decline to participate or to withdraw from the research at any time.
- Psychologists inform participants of significant factors that may be expected to influence their willingness to participate.
- Psychologists must obtain informed consent from research participants prior to filming or recording them.
- Participants should be fully debriefed following any deception.
- Psychologists inform research participants of their anticipated sharing or further use of personally identifiable research data.
- Psychologists provide a prompt opportunity for participants to obtain appropriate information about the nature, results, and conclusions of the research.

Psychologists must honor all commitments made to research participants.

The APA also presents additional guidelines for the **use and care of animals** in research.

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