PSY 152
INTRODUCTION TO PSYCHOLOGY

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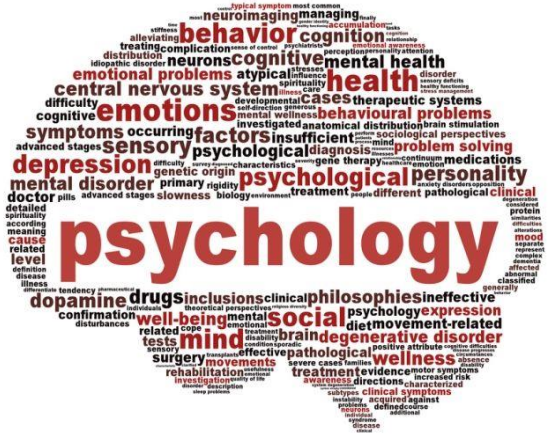
Learning Objectives

- Be able to describe Psychology
- Explain the circumstances under which the firsts psychological laboratory was established.
- Explain major perspectives in psychology
- Understand what psychologists do
- Explain why psychology is described as a science.

What Is Psychology?

- The discipline concerned with behavior and mental processes and how they are affected by an organism's physical state, mental state, and external environment.
- Psychology is the science that studies behaviour and mental processes
- Represented by the Greek letter Ψ ("psi")



Mission of Psychology

- Scientific method is a system of gathering scientific evidence in which research questions or hypotheses are formulated and tested.

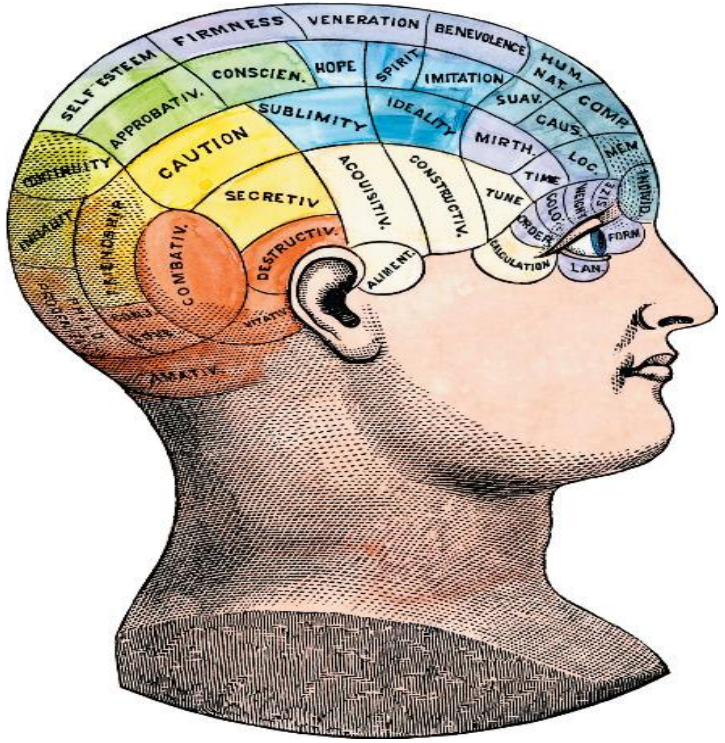
- Goals of scientific studies
  - Measure and describe
  - Understand and predict
  - Apply and predict

Mission of Psychology

- Psychology is concerned about the studies of how human feel, think and behave.
- Psychology aims to understand human mind and behaviours and predict behaviours.
- To promote psychological well-being of people

How Psychology Evolves (A Brief History)

- Phrenology: Greek for “study of the mind”.



Archives of the History of American Psychology, The University of Akron

How Psychology Evolves (A Brief History)

- **Wilhelm Wundt (1832-1920)**
  Father of Psychology

- In 1879, the first psychological laboratory was officially established in Leipzig, Germany by Wilhelm Wundt
- 1897 is described as psychology's "date of birth"

How Psychology Evolves (A Brief History)

- **Wilhelm Wundt's Perspective**
- **Introspection**
  - Method by which individuals were taught to carefully observe, analyze, and describe their own experiences
- **Structuralism**
  - It argues that the mind consists of three basic elements-sensations, feelings and images combine to form experience
  - Emphasized the analysis of immediate experience into basic elements

How Psychology Evolves (A Brief History)

- This early approach that emphasized the analysis of immediate experience into basic elements

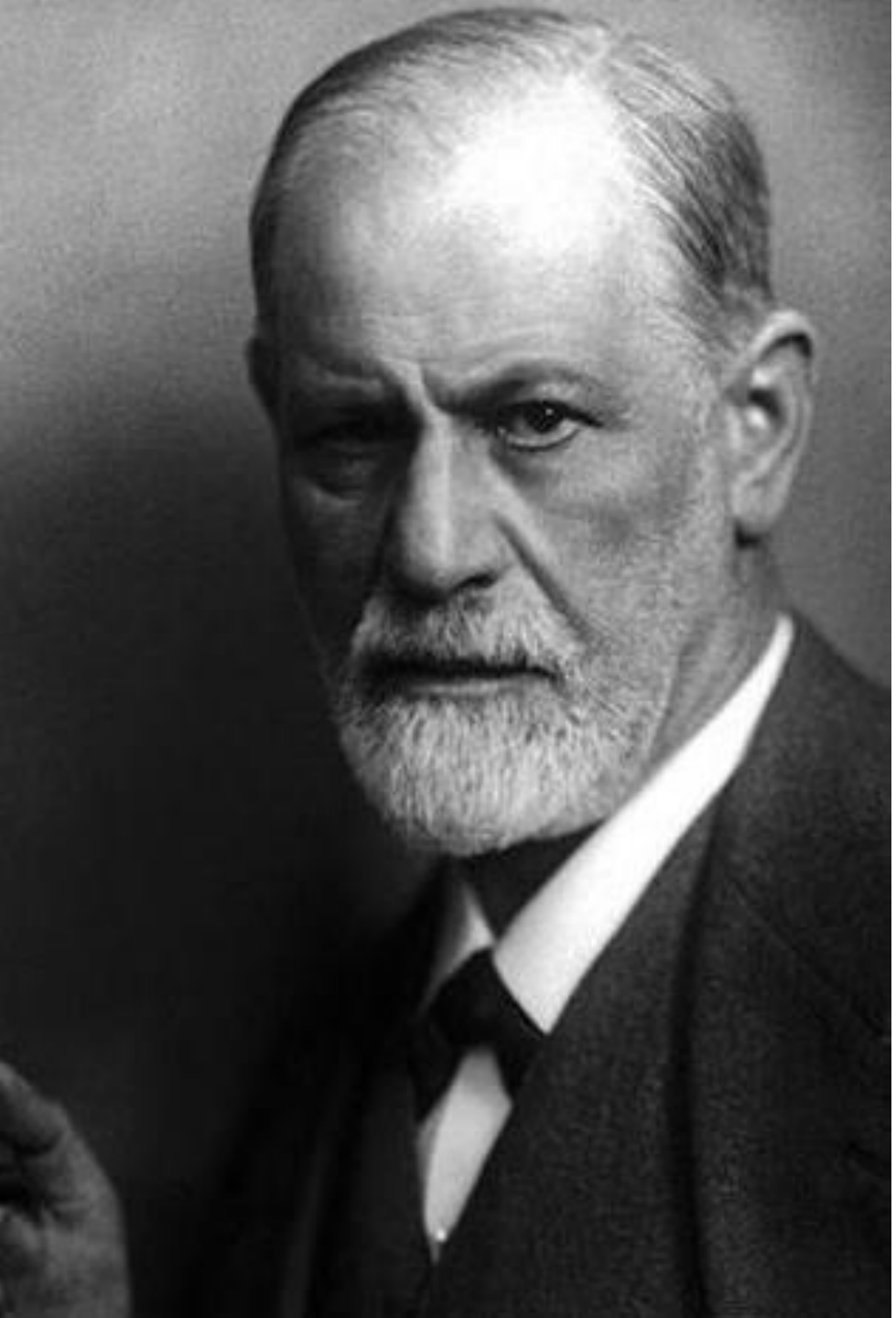
- Dismissed as being too subjective, but responsible for training many early North American psychologists

How Psychology Evolves (A Brief History)

- **William James (1842-1910)**
- **Functionalism**
  - Early approach that emphasized the function or purpose of behavior and consciousness
  - Inspired by evolutionary theories of Charles Darwin and the inquiry into how people and animals adapt to their environments.

How Psychology Evolves (A Brief History)

- **John B Watson (1879-1958)**
- **Behavourism**
  - Early approach that emphasized observable behaviour and studies relationships between stimuli and responses.
  - Psychology should limit itself to observable, measurable events- that is to behaviour.



How Psychology Evolves (A Brief History)

- **Sigmund Freud (1859-1939)**
- **Psychoanalysis**
  - A theory of personality and a method of psychotherapy, originally formulated by Sigmund Freud
  - Emphasizes the importance of unconscious motives and conflicts as determinants of human behavior

Recent perspectives of Psychology

- Biological perspective
- Learning perspective
- Cognitive perspective
- Sociocultural perspective

The Biological Perspective

- Psychological approach that focuses on how bodily events affect behavior, feelings, and thoughts
- The perspective studies the connections between biological processes, behavior and mental processes.

- This perspective involves
  - Hormones
  - Brain chemistry
  - Genes
  - Evolutionary influences

The Learning Perspective

- Psychological approach that is concerned with how the environment and experience affect a person's actions

- This perspective involves
  - **Behaviorists:** emphasize the importance of environmental influences and focus on learning habits through repetition and reinforcement.
  - **Social-cognitive learning theorists:** individual knowledge acquisition and behavior is related to observing others, social interaction and experience.

The Cognitive Perspective

- Psychological approach that emphasizes what goes on in people's heads
- Cognitive perspective focuses on mental processes such as sensation and perception, memory, intelligence, language, thought , and problem solving.
- Inferences are made on these mental processes through observable behaviors

The Sociocultural Perspective

- Psychological approach that emphasizes social and cultural forces outside the individual that shape various aspects of behavior

- The social and cultural forces include ethnicity, gender, socioeconomic status which have impact on behavior and mental processes

Psychological Research

- **Basic Psychology:** The study of psychological issues for the sake of knowledge rather than for its practical application
- e.g., research on how teaching methods affect students' concentration in class

- **Applied Psychology:** The study of psychological issues that have direct practical significance; also, the application of psychological findings
- e.g., research to improve organisation's hiring process

Psychology Practice: What Psychologists Do

- Counseling psychologists help people deal with problems associated with everyday life.

- School psychologists work with parents, teachers, and students to enhance student performance and help deal with emotional difficulties.

- Clinical psychologists diagnose, treat, and study mental or emotional problems of those with severe disturbances.
- Organisational Psychologists apply psychological theories and methods at the workplace.

Psychology Practice: What Psychologists do

Psychotherapists

Anyone who does any type of psychotherapy

Psychoanalysts

Individuals who receive training in psychoanalysis

Psychiatrists

Medical doctors who diagnose and treat mental disorders

Psychology in the Community

- There are many areas in which psychologists contribute:
  - Worker satisfaction
  - Improving racial and ethnic relations
  - Advising on pollution and noise
  - Rehabilitation services
  - Advise judges and juries
  - Suicide prevention
  - Advocating for the training and care of animals
  - Improving coaches' techniques for working with athletes

Psychology as a Science

- Psychology aims to **describe**, **explain, predict** , **control** and **modify** human behaviour and mental processes through scientific processes.
- Empirical evidence
  - Relying on evidence gathered by careful observation, experiment, and measurement

Scientific Method

- Scientific method is a system of gathering scientific evidence in which research questions or hypotheses are formulated and tested.

- Goals of scientific studies
  - Measure and describe
  - Understand and predict
  - Apply and predict

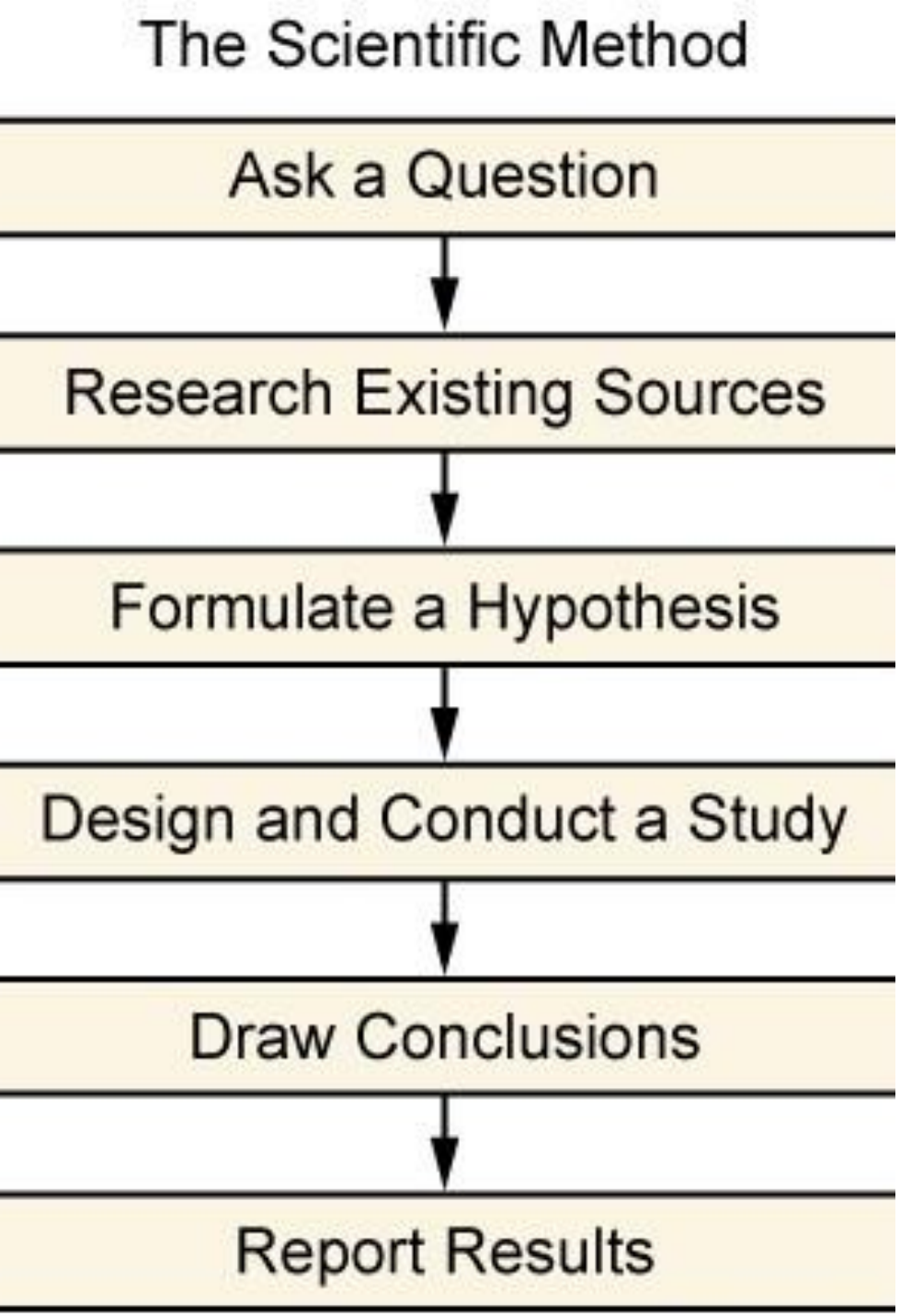
Basic Concepts

- **Theory**- a formulation of the relationships and principles that underlie observed events.
- Theories allow researcher to explain and predict behavior
  - E.g. social cognitive theory of observational learning may prompt a research into the effects of TV violence on children behavior.

- **Hypothesis** - a specific statement about behaviour or mental processes that can be tested through research
  - E.g., children who watch violence movie are more likely to exhibit aggressive behaviour during play

Basic Concepts

- **Variable:** Any phenomenon that can change or vary
  - It can also be defined as characteristics of behavior or experiences that can be measured or described by a numeric scale
- Variables are manipulated and assessed in scientific studies.



Step of Scientific

- Draw a testable statement or prediction
- Search for a gap in the literature
- Select appropriate research methods
- Gather the data and try to have a representative sample
- Analyze the data and draw conclusions
- Report findings and if possible, replicate the findings

Research Methods: Some Basic Concepts

- Population – entire set of individuals or event to which a generalizations will be made based on a sample e.g., all students in Ghana
- Sample- subset of a population selected as participants for the research. E.g., all students in the regional capitals of Ghana
- Representative sample- a group of randomly chosen participants that accurately represents the larger population in which the researcher is interested

Types of Psychological Research

- Descriptive Methods: Methods that yield descriptions of behavior, but not necessarily causal explanations

- Include
  - Case studies
  - Observational studies
  - Psychological tests
  - Surveys

Case Studies

- A case study is a detailed description of a particular individual being studied or treated.
- Case study may be obtained through interviews, questionnaires, and psychological tests.
- Most commonly used by clinicians, but occasionally used by academic researchers

Observational Studies

- Researchers carefully and systematically observe and record behavior without interfering with behavior.

- Naturalistic observation
  - Purpose is to observe how people or animals behave in their natural environments
- Laboratory observation
  - Purpose is to observe how people or animals behave in a more controlled setting

Psychological Tests

- Procedures used to measure and evaluate personality traits, emotional states, aptitudes, interests, abilities, and values
- Psychological tests can be objective (inventories) or projective.
- Characteristics of a good test include
  - Standardization
  - Reliability
  - Validity

Standardized Tests

- The test is constructed to include uniform procedures for giving and scoring the test.

- In order to score tests in a standardized way, an individual's outcome or score is compared to norms.
  - To establish norms, the test is given to a large group of people who are similar to those for whom the test is intended.
  - By having norms or established standards of performance, we know who scores low, average, or high.

Psychological Tests

- Psychological tests must be reliable because important decisions are made based on them

- Reliability
  - In test construction, the consistency of test scores from one time and place to another.
    - E.g., a measure of height would not be reliable if a person appeared to be taller or shorter every time a measure is taken.
- Validity
  - The ability of a test to measure what it was designed to measure.
    - E.g., respondents may exaggerate responses

Surveys

- Questionnaires and interviews that ask people about experiences, attitudes, or opinions
- Requires attention to proper sampling procedures
- Popular polls and surveys rely on volunteers

Correlational Study

- A descriptive study looks for a consistent relationship between two phenomena. E.g., correlational studies

- Correlation
  - A scientific method that measure of the strength and direction of the relationship between two variables
  - E.g., relationship between studying and grades

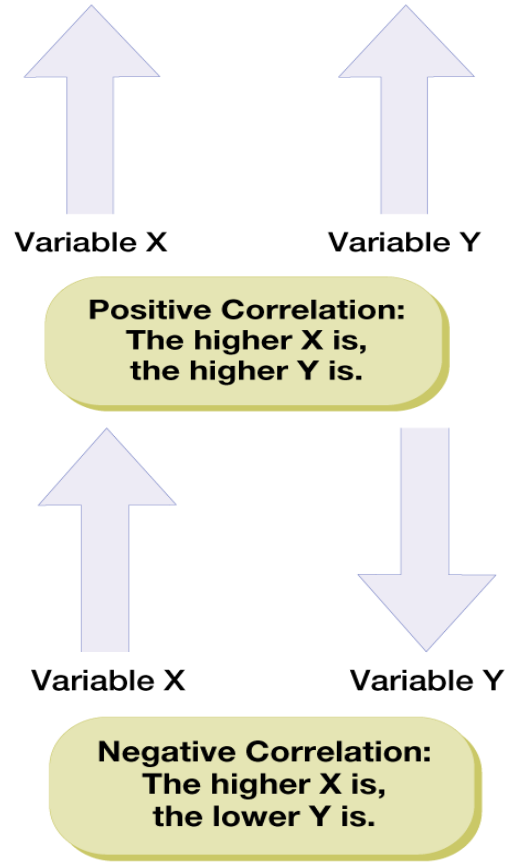
Direction of Correlations

❖ Positive correlations

It occurs when an increase in one variable leads to an increases in another or decreases in one variable leads to a decreases in the other.

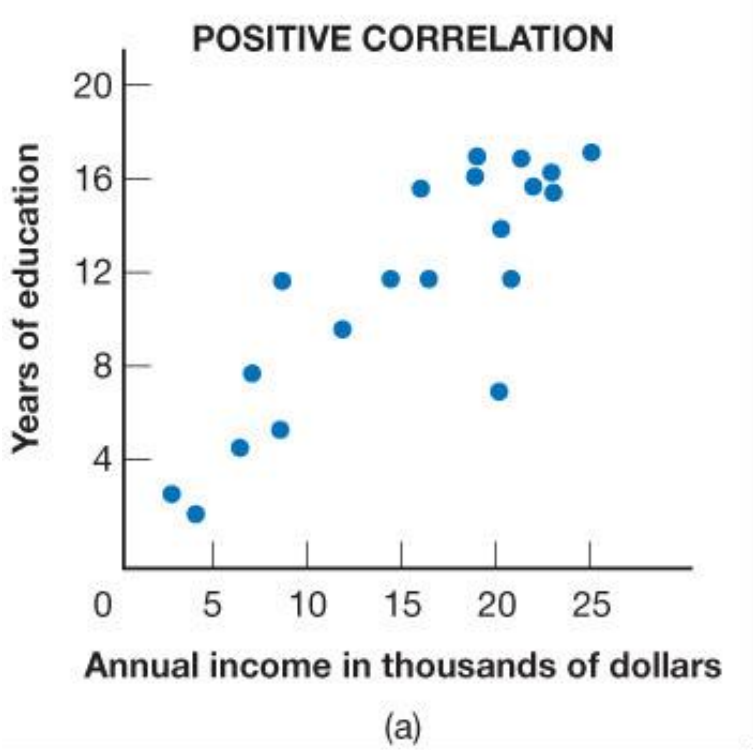
❖ Negative correlations

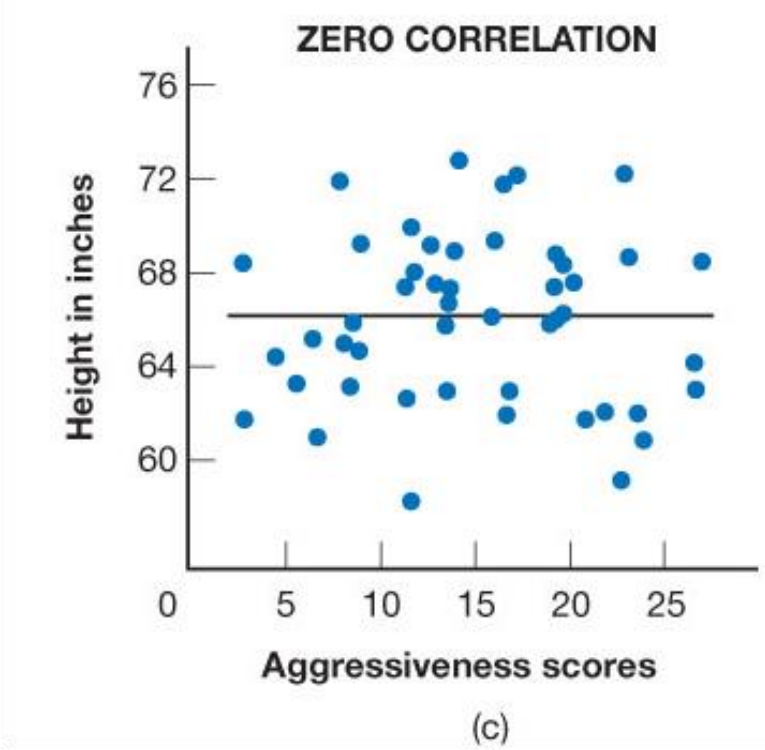
It occurs when an increases in one variable leads to a decreases in another variable

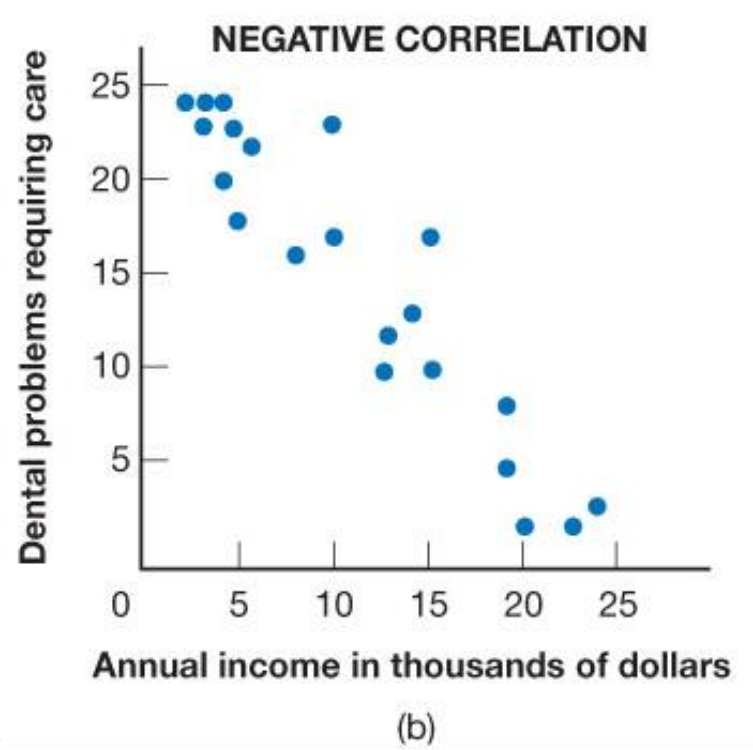


scatterplots

Correlations can be represented by scatterplots.

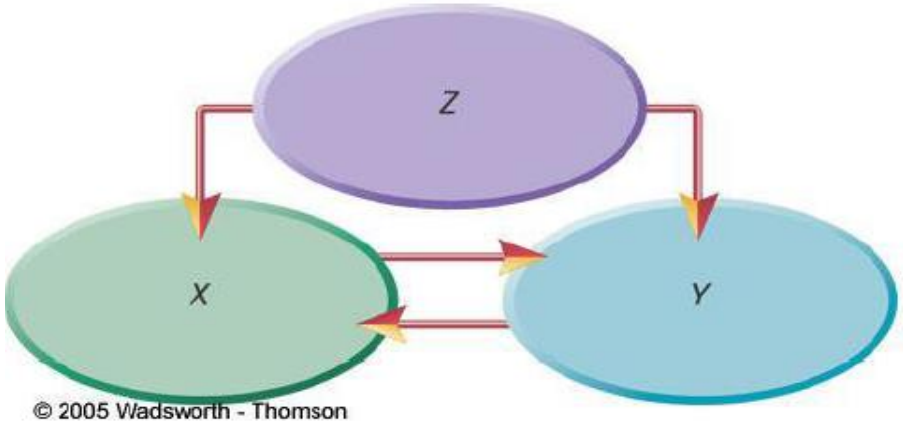


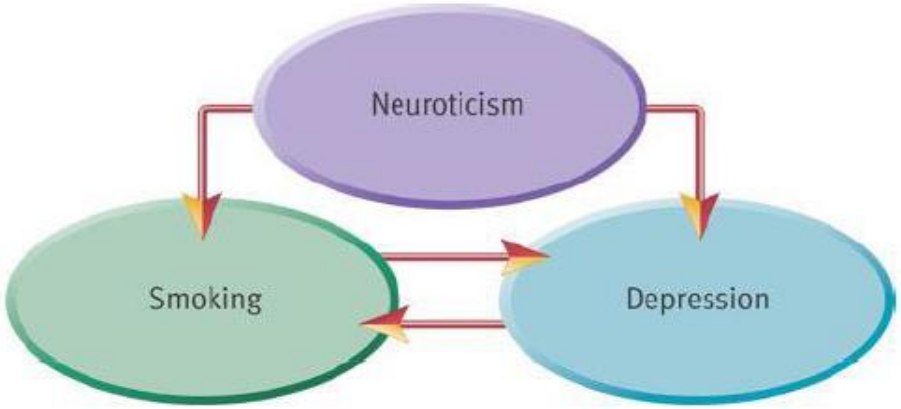




Coefficient of Correlation

- The statistic used to express the relationship between two variables (represented by "***r***")
- Can range from -1.00 through 0.0 to +1.00 (-1 to +1)





A correlation does not establish causation.

Experimental Studies

- A controlled test of a hypothesis in which the researcher manipulates one variable to discover its effect on another.
- Experiment seeks to confirm cause-and-effect relationships.

Types of Variables

- **Variable:** Any phenomenon that can change or vary

- **Independent variable**
  - A variable the experimenter manipulates so that its effects may be observed

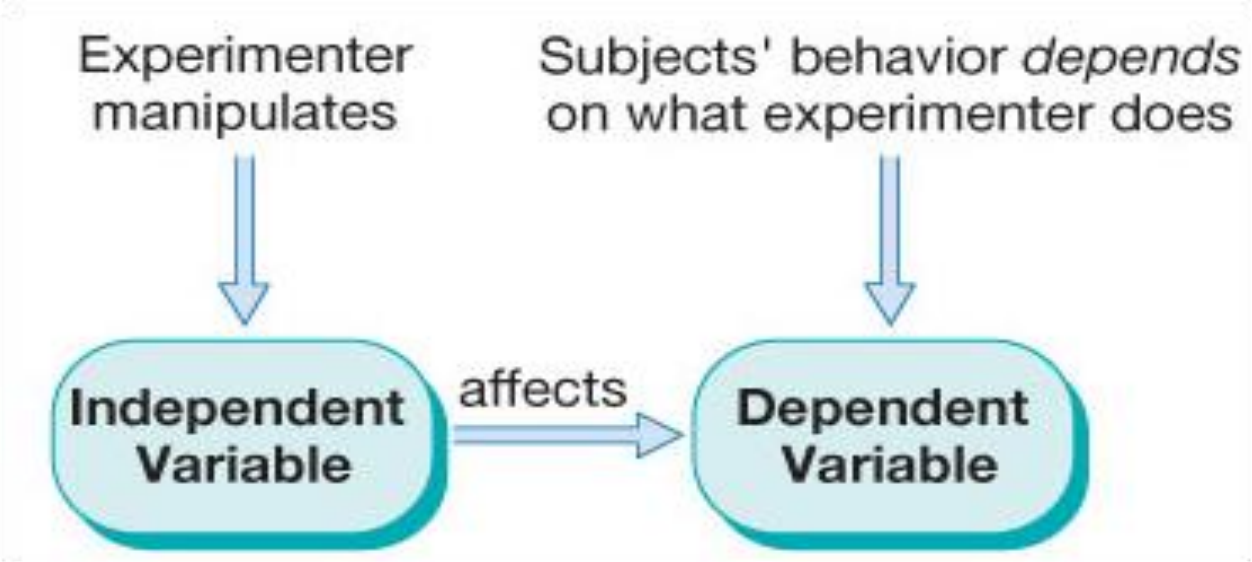
- **Dependent variables**
  - A variable that is affected by the independent variable; that is what is measured

Independent and Dependent Variables

When psychologists set up an experiment, they think, "If I do X, then my participants will do Y."

The "X" represents the *independent variable.*

The "Y" represents the *dependent variable.*



Control Condition

- In an experiment, a comparison condition in which subjects are not exposed to the same treatment as are those in the experimental condition

- In some experiments, the control group is given a placebo, an inactive substance or fake treatment

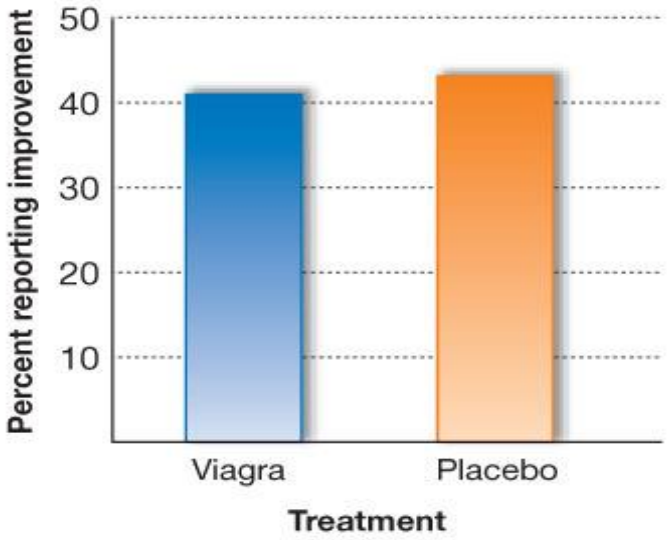
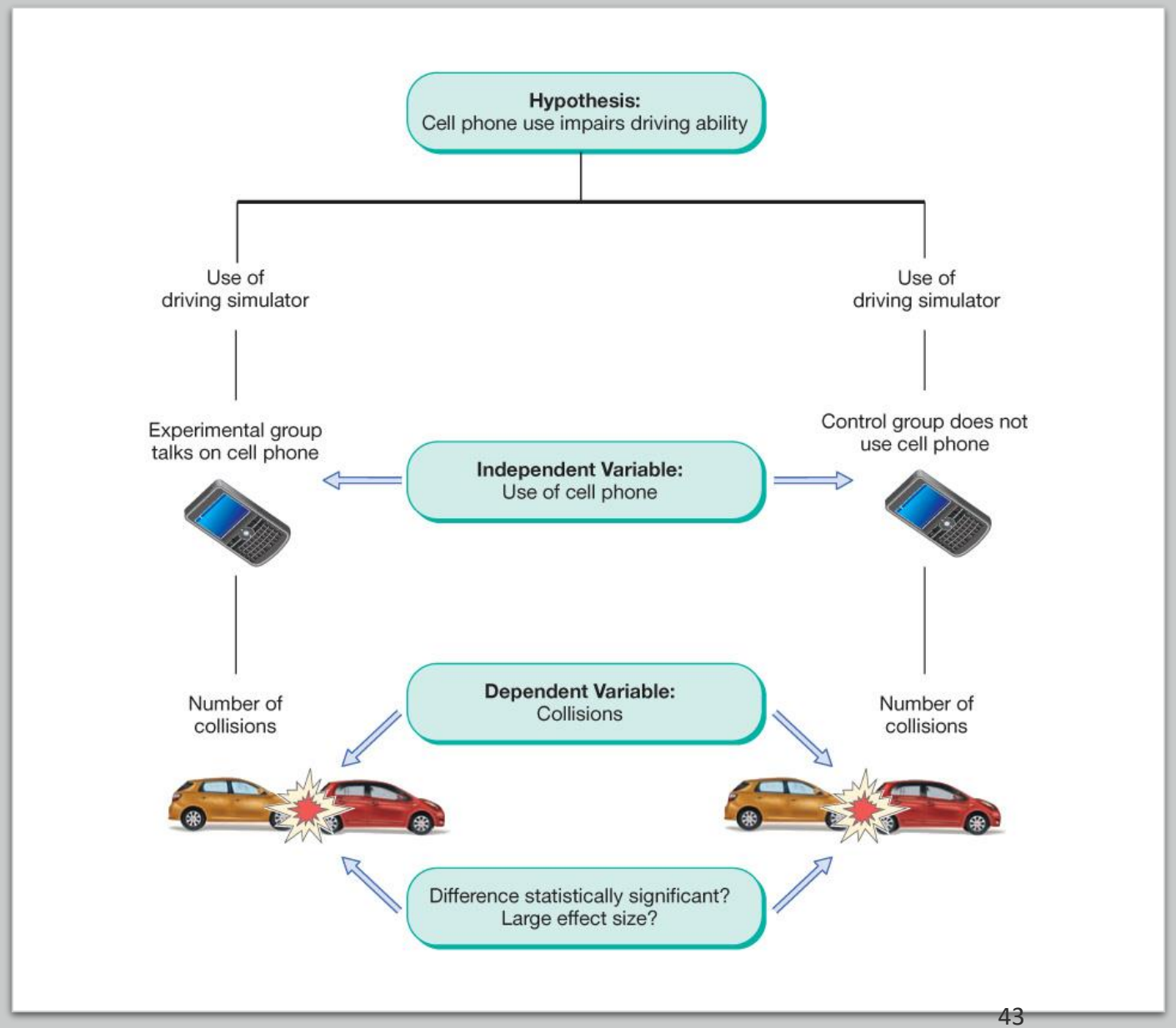


FIGURE 1.4
Does Viagra Work for Women?
Placebos are essential to determine whether people taking a new drug improve because of the drug or because of their expectations about it. In one study, 41 percent of women taking Viagra said their sex lives had improved. That sounds impressive, but 43 percent taking a placebo pill also said their sex lives had improved (Basson et al., 2002).

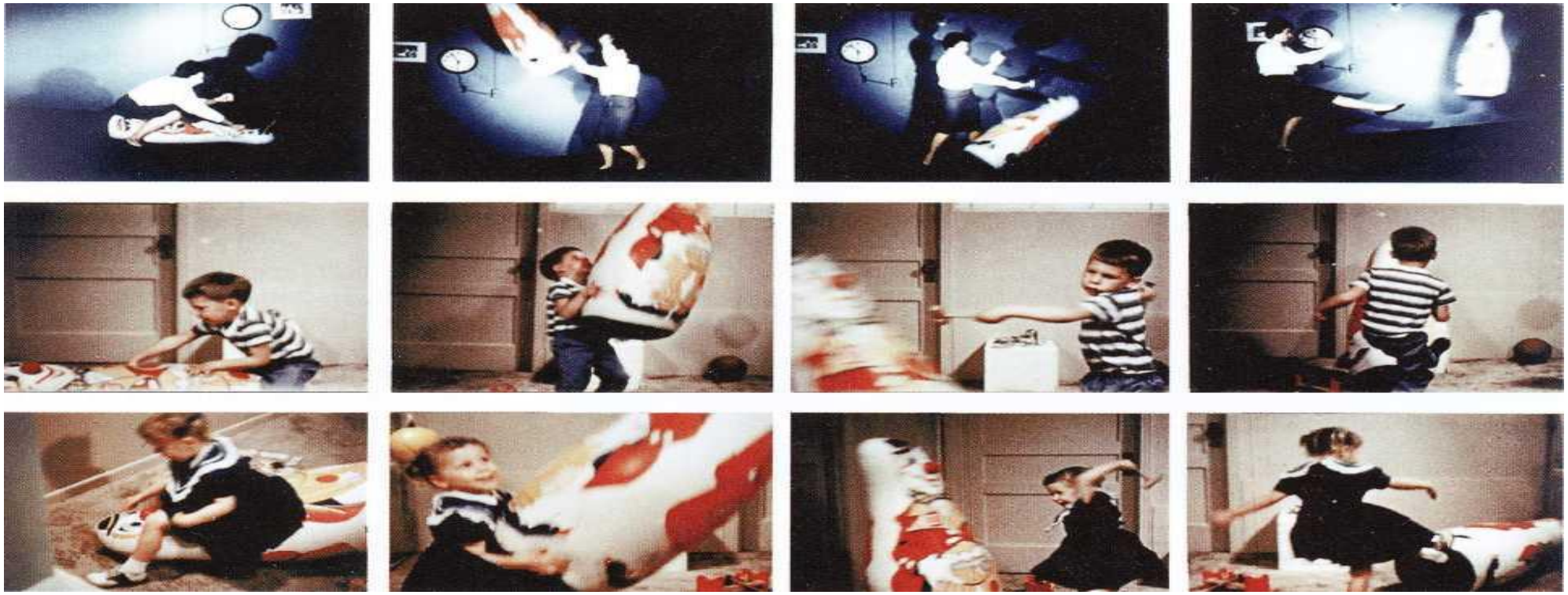
Experimental Studies

- **Is Driving While Using a Cell Phone a Good Idea?**



Example of Experiment

- Badura et al. (1960s); Bobo dolls experiments
- Observational learning



Design of Experiment

- Independent variable (IV)
- Watching videos
  - 2 conditions: Yes Vrs No

- Dependent variable (DV)
- Aggression level
  - E.g., number and duration of hits, etc

(119) Albert Bandura - Experimento sobre Agresividad – YouTube
https://www.youtube.com/watch?v=dDA5nmiGD2w

Design of Experiment

- Participants: young children (aged 3-6 years)

- Hypothesis
  - Watching aggression videos influence aggressive behaviour

Manipulation

- Children viewed a film in which an adult was seen in a room with an inflatable doll (Bobo dull)
- In the experimental group, the adult directed aggressive acts to toward the Bobo doll
- In the control group, the children were not shown the aggressive film
- After viewing the film, each child was then left alone in a playroom with an inflatable doll (Bobo doll)

Results

- Children who watch the aggressive behaviour imitated the aggressive behavior by the adult toward the Bobo dull than those who did not watch the aggressive behavior

Research Method	Advantages	Disadvantages
Experiment	❖ Precise control on variables Cause-and-effect relationship	❖ Too artificial ❖ Ethical concern ❖ Concerns of representative sample
Survey	❖ Gather data easily from large sample	❖ Self-report data often unreliable
Naturalistic Observation	❖ Good start when little is known	❖ Cannot explain why certain behaviours are observed
Case Study	❖ Suitable for study certain phenomena (e.g., clinical)	❖ Clinical samples often unrepresentative

Biases and Errors in Research

- Sampling error: unrepresentative sample

- Placebo effect (a bogus treatment that has the appearance of being genuine.
  - Participants may have false expectations on the fake treatment

- Experimental bias (researchers may have expectations or preferences on the results

- Social desirability bias
  - Tendency for participants to give socially-approved answers to the questions being answered

Suggested Solution to Biases

- Double-blind study. A study in which neither the participants nor the researcher know who has received the treatment.

- Random assignment: Each individual participating in the study has the same probability as any other of being assigned to a given group.

Ethical Issues in Research

- Informed consent. Participants should be given full information about the study before they decide to participate

- Voluntary participation: Participation of research should be voluntary and free to withdrawal during the study

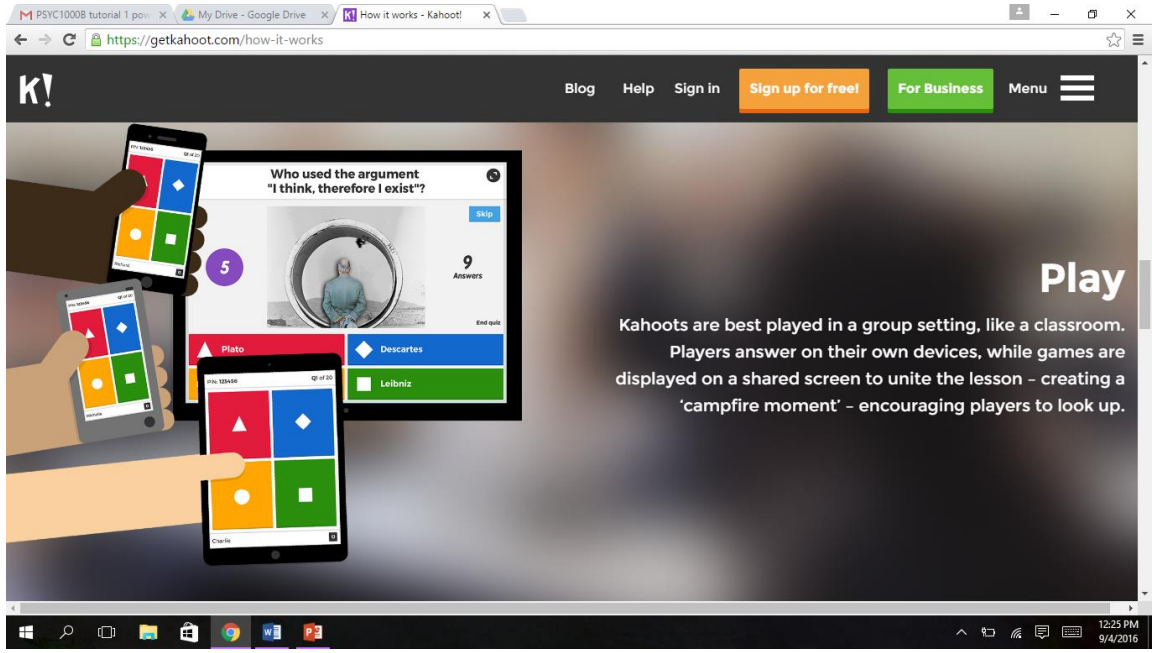
- No risk or minimal risk: There should not be a risk to participant or potential risks to participants should be minimized.

Ethical Issues in Research

- Deception and Debriefing. If some information are hidden from participants during the study, they must be debriefed immediately after the study.

- Confidentiality: All participants information obtained during the study should be highly confidential and restricted to the use of the study purposed only.


Kahoot!
Game pin
Enter


https://getkahoot.com/how-it-works
Blog
Help
Sign in
Sign up for free!
For Business
Menu
Who used the argument "I think, therefore I exist"?
Skip
9
Answers
End quiz
Plato
Descartes
Leibniz
Play
Kahoots are best played in a group setting, like a classroom. Players answer on their own devices, while games are displayed on a shared screen to unite the lesson – creating a 'campfire moment' – encouraging players to look up.
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Mini Quiz