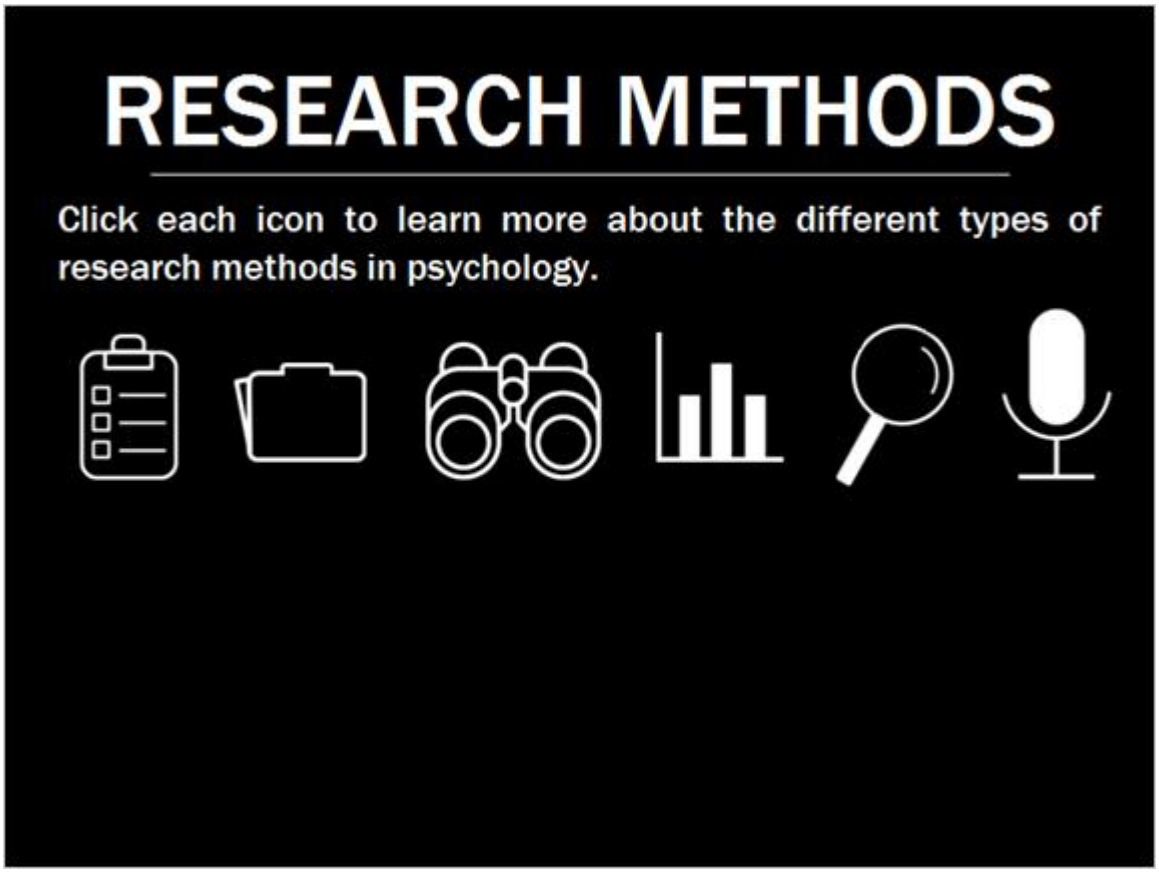
Module 1: Introduction to Psychology
Topic 3 Content: Research Methods Notes



Research Methods

Click each icon to learn more about the different types of research methods in psychology.

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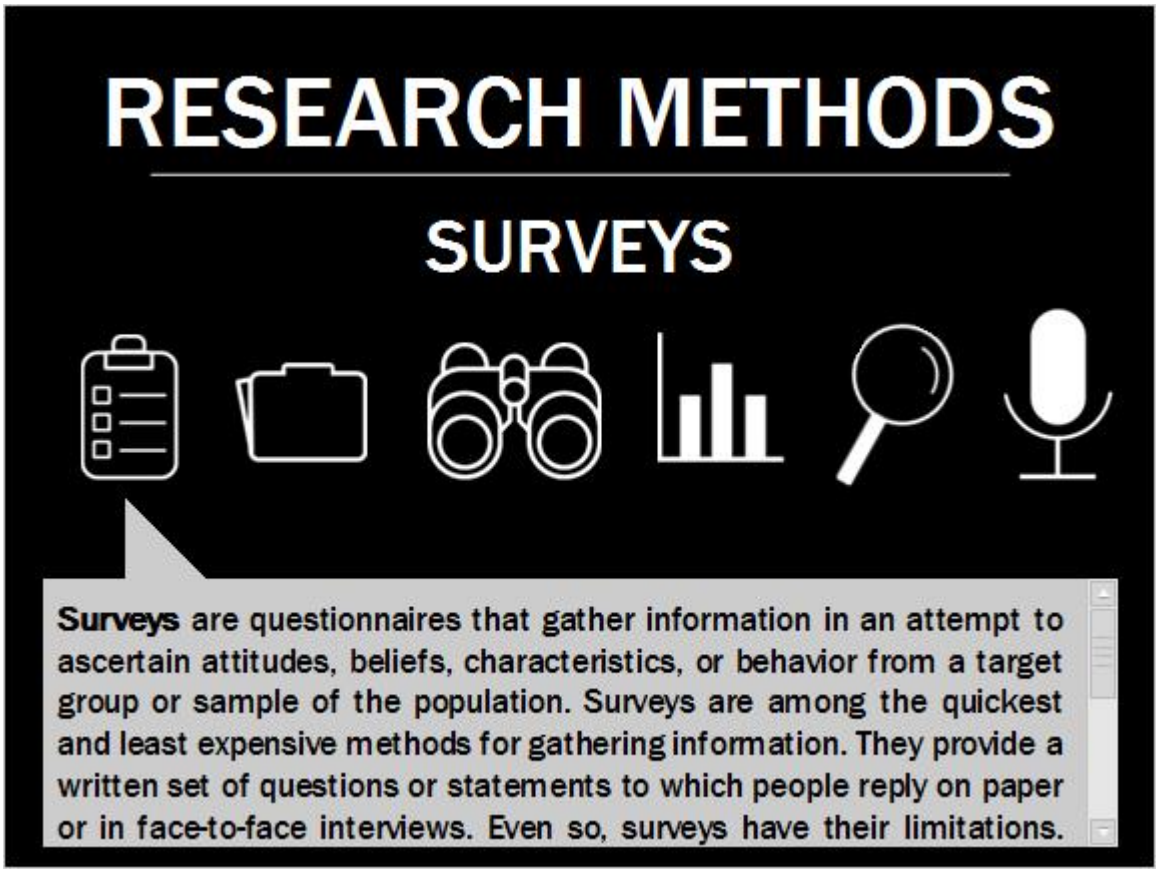
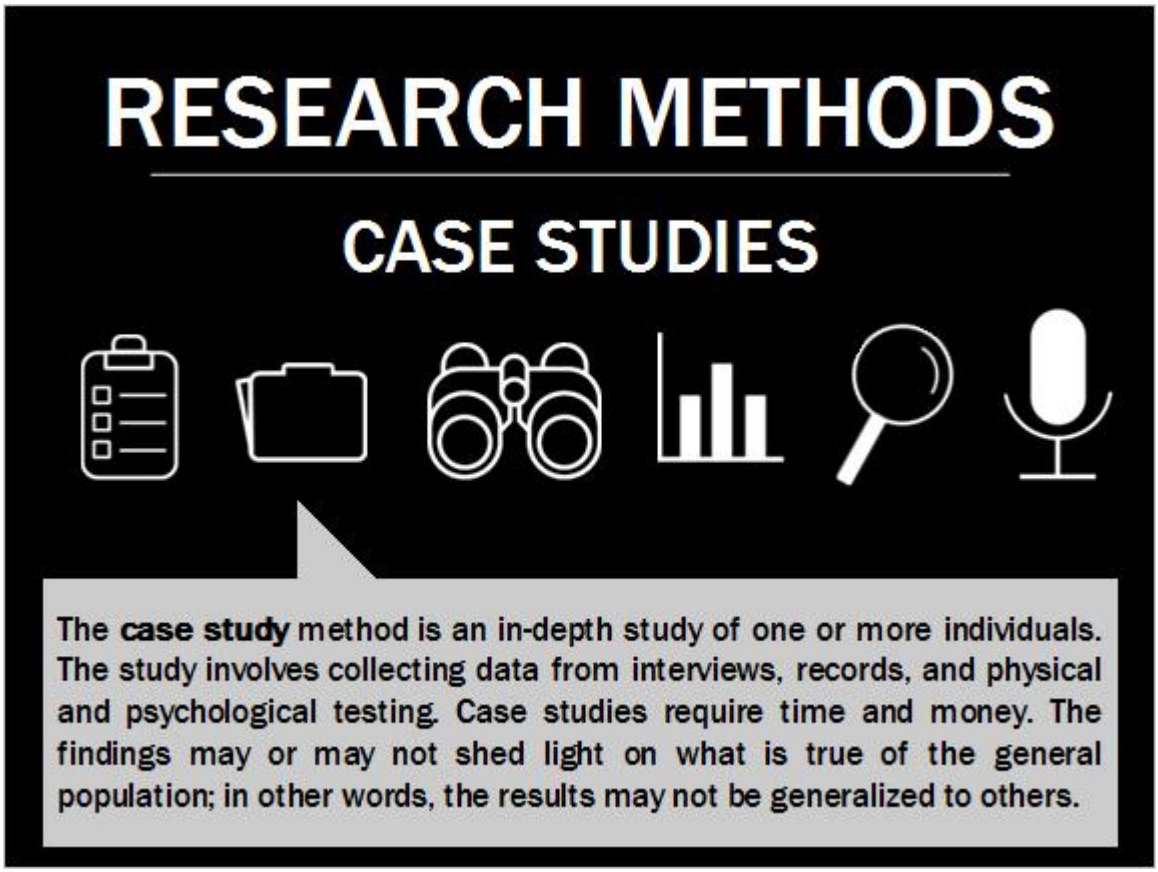
Surveys



Surveys

Surveys are questionnaires that gather information in an attempt to ascertain attitudes, beliefs, characteristics, or behavior from a target group or sample of the population. Surveys are among the quickest and least expensive methods for gathering information. They provide a written set of questions or statements to which people reply on paper or in face-to-face interviews. Even so, surveys have their limitations. Sometimes, respondents do not completely understand the questions. This occurs when surveys use vocabulary words participants might not fully understand. Another weakness can be the **wording effect**: the way a question or statement is worded can have an effect on how people answer. Another drawback to surveys is the respondent's honesty. Sometimes, people answer in such a way to avoid being viewed negatively or out of a desire to make oneself look more favorable.

Case Studies



Case Studies

The **case study** method is an in-depth study of one or more individuals. The study involves collecting data from interviews, records, and physical and psychological testing. Case studies require time and money. The findings may or may not shed light on what is true of the general population; in other words, the results may not be generalized to others.

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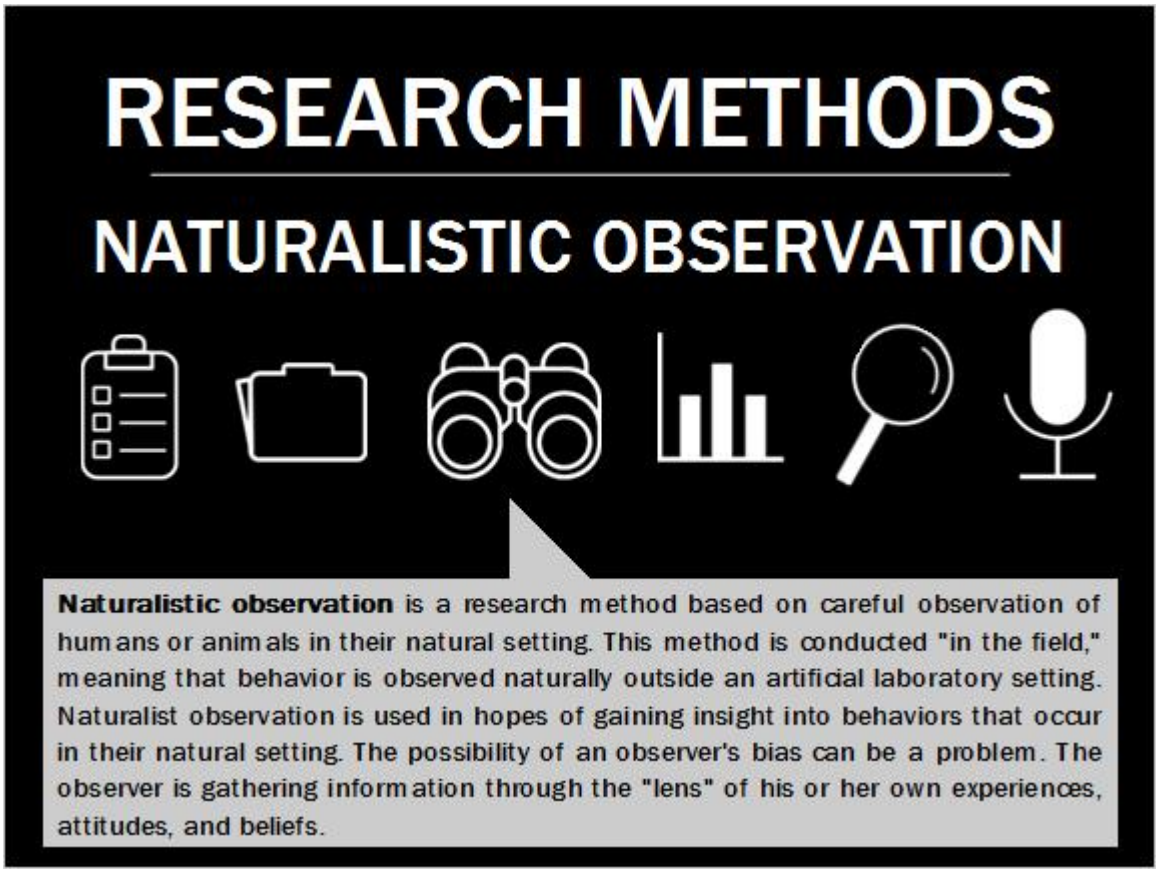
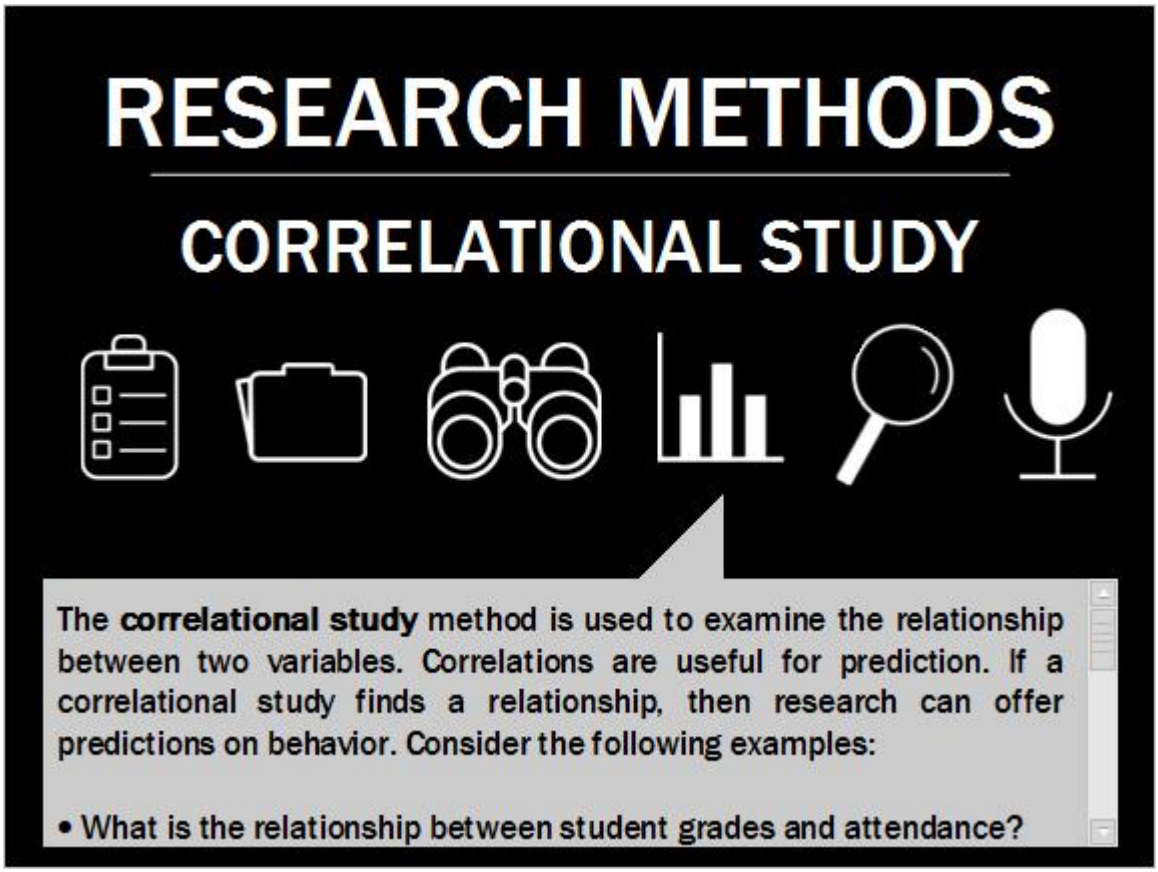
Naturalistic Observation



Naturalistic Observation

Naturalistic observation is a research method based on careful observation of humans or animals in their natural setting. This method is conducted "in the field," meaning that behavior is observed naturally outside an artificial laboratory setting. Naturalist observation is used in hopes of gaining insight into behaviors that occur in their natural setting. The possibility of an observer's bias can be a problem. The observer is gathering information through the "lens" of his or her own experiences, attitudes, and beliefs.

Correlational Studies



Correlational Studies

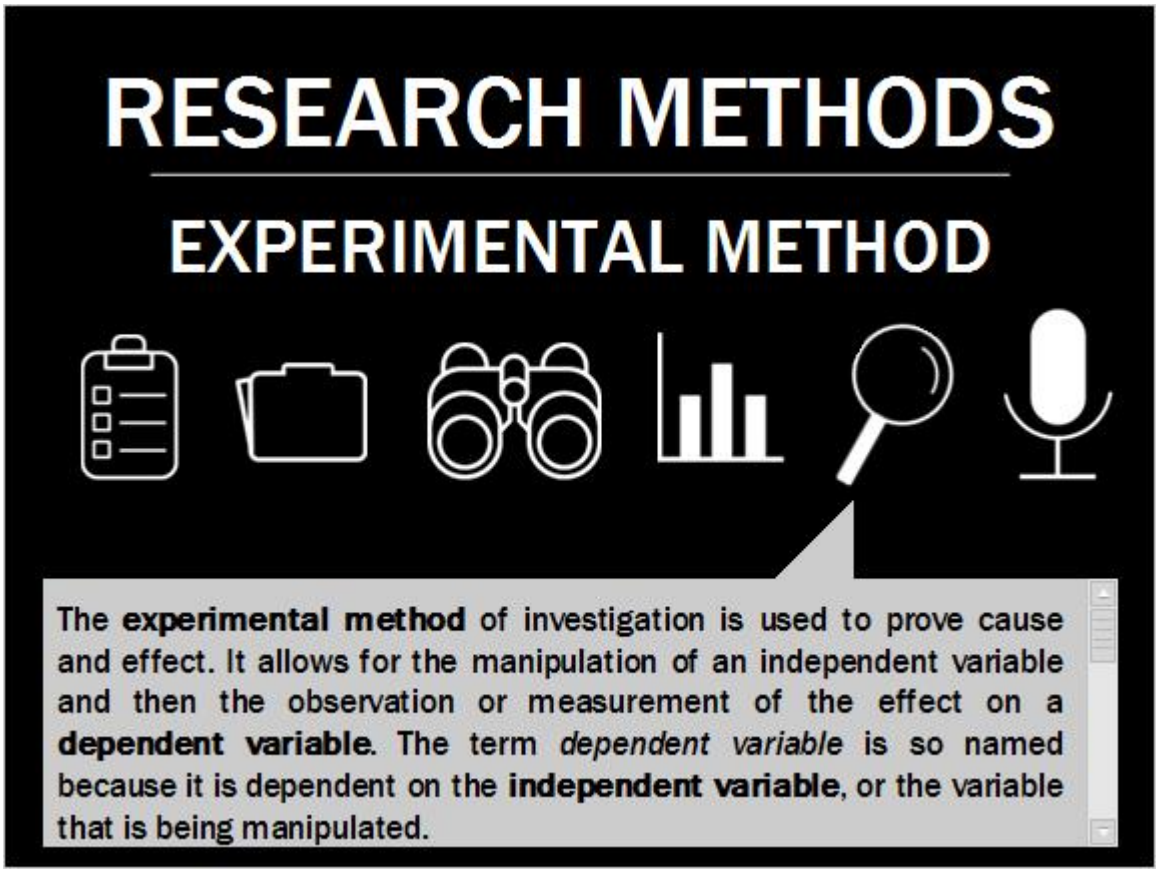
The **correlational study** method is used to examine the relationship between two variables. Correlations are useful for prediction. If a correlational study finds a relationship, then research can offer predictions on behavior. Consider the following examples:

- What is the relationship between student grades and attendance?
- What is the relationship between rates of depression and the number of negative thoughts?
- What is the relationship between crime rates and seasons of the year?
- What is the relationship between number of births and phases of the moon?

Notice that if you find a relationship between these paired variables, you cannot argue that one causes the other. That is what is meant by the expression in research that "correlation does not prove causation."

Although correlational studies do not provide evidence of the causes, they do show a relationship and can offer clues to underlying causes. To prove cause and effect, however, an experimental study must be conducted.

Experimental Method



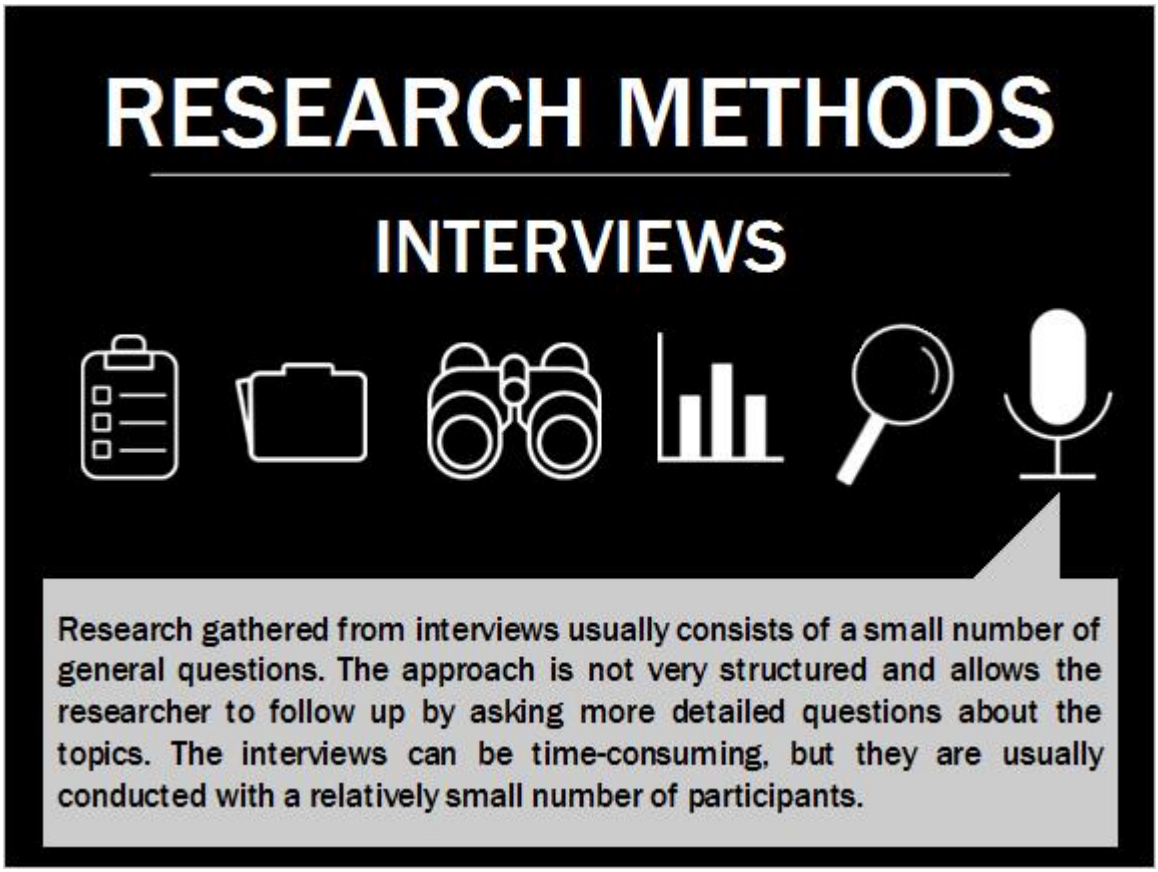
Experimental Method

The **experimental method** of investigation is used to prove cause and effect. It allows for the manipulation of an independent variable and then the observation or measurement of the effect on a **dependent variable**. The term *dependent variable* is so named because it is dependent on the **independent variable**, or the variable that is being manipulated.

The **experimental group** receives the experimental effect and the **control group** does not. The control group is important in determining that the effects of the independent variable are not due to other factors. In drug studies, sometimes a placebo is given randomly to participants. The **placebo** is an inactive substance, like a sugar pill, that helps determine whether changes are due to the expectation of improvement rather than any specific treatment. Participants do not know whether they are receiving the active substance or the sugar pill.

Many studies use a **double-blind procedure**, in which neither the participant nor the research assistant knows which groups are receiving the active, experimental treatment. This procedure can reduce possible bias on the part of the researcher. On the other hand, sometimes people's hopeful expectations can affect the participants and make them believe they are experiencing the positive, healing effects of a drug. This is called a **placebo effect**.

Interviews



Interviews

Research gathered from interviews usually consists of a small number of general questions. The approach is not very structured and allows the researcher to follow up by asking more detailed questions about the topics. The interviews can be time-consuming, but they are usually conducted with a relatively small number of participants.