

Social Sciences Inquiry

Why are anthropology, psychology and sociology known as “sciences”?

Because all three follow a process of INQUIRY. An inquiry is an investigation that follows a formal procedure.

The Inquiry Model

A scientific inquiry has five steps:

1. Identify a problem or question
Do students who own or have access to a car have lower grades in school?
2. Develop a hypothesis
Owning or having access to a car has a negative effect on students' grades.
3. Gather data
 - a) Case study
 - b) Experiment
 - c) Sample survey
 - d) Interview
 - e) ObservationConduct a survey to find out how many teens own or have access to a car and what grades they are getting in school.
4. Analyse the data – Data must be organized before it can be used
Use a graph to show the relationship between having access to a car and students' grades.
5. Draw conclusions – Your hypothesis may be correct or incorrect. It may be accepted or rejected, or you may have to revise it for future study
Having access to a vehicle has a negative effect on students' grades

Gathering Data/Research Methods

Case Studies

- Studies one example or case.
- Provides depth (much detail).
- Hypotheses about similar situations can be developed.

Experiments

- Shows if one factor is caused by another.
- Allows you to change one factor to see how other things are affected.

In the natural sciences (physics, biology and chemistry), experiments are widely conducted.

In the social sciences, they are used with great care due to the ethical questions involved in experimenting with human beings.

Sample Surveys

They are called sample surveys because they allow researchers to ask questions of a fairly small number of people (the sample) who represent a larger group.

Usually uses a *questionnaire* – a series of formulated questions aimed at collecting information for research.

Surveys are often given to a cross-section of the population being studied.

A cross-section is a range of people representing different aspects of the population with respect to characteristics such as age, sex, occupation, region, culture and other characteristics.

Sample Group: The group of people that respond to the survey

Random Sample: When the group is chosen “by chance”. For example, putting everyone’s name in a hat and drawing out the names of those that will be chosen.

Why do a sample survey?

- It allows researchers to draw conclusions about a larger group by only questioning a smaller, representative sample.
- It provides a general idea of trends.

Disadvantage of Sample Surveys: Does not allow people to explain their thoughts or opinions beyond responding to the questions.

Interviews

Used to gather detailed information from a few people such as explanations of thought and behaviour.

Observation

Advantage: Allows researchers to learn about people in their normal surroundings, or “in the field”.

3 methods of observation:

1. Unstructured Observation: studies people without a predetermined idea of what to look for
2. Structured Observation: planning beforehand what will be observed or noted and keeping a list of things to look for.
3. Participant Observation: the researcher participates in the group’s activities, perhaps living with the group for a long time.

Analyzing Data

Analyzing means:

- Organizing
- Explaining
- Making sense out of something

Data means:

The information collected using one of the 5 research methods

Analyzing Data means changing the data into a format that helps test the hypothesis to prove it or disprove it.

3 steps to analyzing data:

1. Data should be separated into two categories: relevant and irrelevant. The only data that is retained is what proves or disproves the hypothesis.
2. Data should be organized in a way that makes it clear.
Example: Convert data to percentages, put the data into a chart or graph
3. Data should be analyzed in terms of how it supports or fails to support the hypothesis

Drawing Conclusions

The conclusion is the answer to the hypothesis...whether or not it was correct.

4 possible conclusions:

1. The evidence supports the hypothesis.
2. There is some evidence to support the hypothesis.
3. The evidence does not support the hypothesis.
4. The evidence supports an alternative hypothesis.