


**ENRICHMENT
ACTIVITY**
2**Nonreactive
Research Methods**

Directions: Read the following material, then answer the questions in the space provided.

Some methods used by psychologists to collect data such as experiments, case studies, surveys, and longitudinal studies are *reactive* measures. In other words, each of these methods involves some interaction between the participant and the researcher. This can lead to several problems, including self-fulfilling prophecies and observer effects.

One method that allows researchers to avoid these problems is naturalistic observation. With this method, researchers study participants in their natural settings and, presumably, acting naturally. Observation is a member of a category of lesser-known data collection methods known as *nonreactive measures*. These methods avoid researcher-participant interaction. Some unusual nonreactive measures include the study of physical traces, the use of archival records, and observational research. The study of physical traces can take on two forms:

1. Erosion measures consider the degree of selective wear on some material.

One famous example of an erosion measure involved a psychology exhibit at the Museum of Science and Industry in Chicago. The exhibit contained live hatching chicks. Museum personnel noted that the vinyl floor tiles around this exhibit had to be changed about every six weeks while tiles in other areas of the museum were not changed for years. It might be possible, therefore, to get an estimate of the relative popularity of museum exhibits by studying the rate of tile replacement around each exhibit. The erosion measure was supported by unobtrusive observation that visitors tended to spend longer in front of the live chick exhibit than at other exhibits.

A second example of the erosion method involved a study of the *International Encyclopedia of the Social Sciences*. The researchers wanted to learn which sections were used the most. The researchers looked for dirty page edges, frequency of dirt smudges, and underlining on pages. Some articles were so heavily read that the dirt had changed the color of the page.

2. Accretion (gradual external addition) measures use the deposit of materials as data much like the way archaeologists study bones and pottery shards.

An interesting use of the accretion method involved the study of the way infants and small children were held, as portrayed in art objects. Researchers noted that from early paintings of Madonnas to contemporary sculptures and photographs, women universally tend to hold children against their left side. Portrayals of men do not exhibit this bias. This finding was confirmed in an observational study of live adults holding children.

The sources of accretion data seem to be limited only by the imagination. Among other things, accretion studies have used garbage, cigarette butts, graffiti, car odometers, and noseprints on museum glass exhibits as data.

A rich source of information comes from records kept for reasons other than social science research. Birth, marriage, and death certificates; congressional records; sales records; and the mass media are a few of the sources providing researchers with data. As the Internet grows, access to much of this data is available to the researcher or student via home computers.

As a final example, the belief in sports that the home team has the advantage was confirmed in a study of the outcomes of over 4,000 professional or college baseball, football, hockey, and basketball games. The home-team advantage was found more often in indoor than in outdoor sports. It also provided more of an advantage during an offensive performance than during a defensive performance.

These inventive techniques for collecting data have limitations. The data provided by such techniques usually provide only correlational data. They are not experiments and no variables are manipulated. However, these methods can provide information necessary to begin generating experimental hypotheses. Other questions about these methods involve the right to privacy and confidentiality. Is it ethical to rummage through someone's garbage? Should a researcher eavesdrop on people's conversations? To what lengths may a researcher go to conduct legitimate scientific research? The ethical guidelines of the psychology profession help provide some of the answers, but they cannot solve every ethical dilemma.

Questions

Directions: Answer the following questions in the space provided.

Fill in the chart below by describing a nonreactive method for studying the behavior listed and any ethical issues that might arise with the nonreactive method.

Behavior	Nonreactive Method of Research	Ethical Issues
1. You would like to know the most popular movies among senior citizens.		
2. Your organization is trying to determine neighborhood participation in its recycling program.		
3. You plan to open a retail store and need to know which of two locations has more cars passing by in the evenings and on weekends.		
4. You want to know which neighborhoods have the highest and lowest turnover of home owners.		
5. You want to know if height and weight make any difference to the likelihood of being elected president of the United States.		

6. Select one of the studies mentioned in this reading. Discuss how the same variables could be studied using the experimental method.
