

DATA COLLECTION: OVERVIEW OF COMMON METHODS

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We begin with two assumptions. First, you have spent a lot of time **conceptualizing** the phenomenon to be studied (e.g., teacher morale) and the concepts or variables in that phenomenon to be measured (e.g., alienated labor, alienation, strength of social integration, ratio of rewards to investments plus costs, and norms of fairness). You are fairly satisfied that you have identified the events that are included in the concepts, and you have developed conceptual definitions. Second, you have developed **operational definitions**. Specifically, you have created a list of the main **attributes** for each concept or "family"; and you have identified the scale of measurement relevant to each attribute. [See Now, you are faced with two problems.

1. How are you going to collect data on the presence of those attributes (which, by inference, suggests the presence of the variable/concept)?
2. And how are you going to transform the "raw data" into a form that enables you to make statements about the phenomenon being investigated?

There are several methods for collecting data.

A. Direct Observation, of which there are varying degrees of observer involvement.

1. Immersing yourself (i.e., rather comprehensively covering what goes on in a social situation) while playing the role of, or being, a participant (e.g., ethnographic field research).
2. Immersing yourself, but as an observer and not as a participant.
3. Observing smaller samples of what goes on.

How do you record Direct Observations? Again, there are several methods.

1. Field Notes. These running accounts of what is observed, which are later analyzed.

Here are some steps.

- a. You begin with a description of the physical setting.
- b. You pick one kind of place, place, activity, event or person to observe first.

c. Using the first item as a base (as a thread in a fabric), you then search for **regularities** and **differences**, such as:

(1) **Types** of persons, places, activities, and processes (e.g., social control)

"Does it always work like this, or are there several ways of doing it?"

"What kinds of statuses are here, roles played, selves presented?"

"What forms of deviant behavior are engaged in? What are the methods of social control?"

(2) **Sequences**, such as the typical round of daily life; ways that activities are accomplished; events that follow one another

(3) Connections between **settings, events, and sentiments** (what goes on, and what feelings occur, where)

(4) The **meanings** of places, events, and gestures for members.

(5) **Social structure**, such as division of labor, distribution of power and authority, and role relationships, both from your point of view and from members' points of view.

(6) Possibly the connections between the setting you are observing and its **larger context**; e.g., the demands on it, resources available to it, obstacles, and the functions it serves.

2. Rating Scales. Rating scales enable you to translate your own observations or members' observations/perceptions/attitudes into a somewhat quantitative medium. The score or rank then serves as a summary of something more complex.

3. Event Recording: Continuous, Time Sampling, and Interval Recording, in which actual occurrences are counted

a. Continuous Event Recording.

Number of aggressive acts: //////////////// =15

Time observed = 15 minutes

Rate of aggression = $15/15 = 1$ aggressive act per minute.

b. Time Sampling.

Observe for consecutive intervals of X duration. The lower the frequency of the event, the longer the intervals should be. Mark each interval IF the identified variable/event occurs.

Aggression: |__|__|__|__|__|__|__|__|__|__|

Calculate the **percentage** of intervals in which the event occurred.

c. Interval Recording is similar to Time Sampling, except that you turn your attention to different participants and/or places for a specified period of time.

"Place an 'A' in each box in which aggression occurs; an 'N' in each box when nonaggression occurs; and an 'O' when student makes no response to another."

1 2 3 4 5 6

Fred: |__|__|__|__|__|__|

Chip: |__|__|__|__|__|__|

Scot: |__|__|__|__|__|__|

First observe Fred for 15 seconds, and mark box 1. Then observe Chip for 15 seconds and mark his box 1. Then do Scot. Then begin again with Fred, marking box 2, etc.

Then calculate the percentage of "A," for example, for the whole group-- number of "A's"/18 possible scorings. Next, calculate the percentages for each student.

4. Audio and Videotape Recordings. These can be transcribed and read, or listened to. From the transcript or from the running (and re-run) tape, you can: a) identify types of events (as when analyzing field notes); (b) count certain events; and (c) make generalizations about regularities (as when analyzing field notes).

5. **Logs, Films, and Other Documentations** by members. These are then analyzed much like field notes.

II. **Surveys.** [See <http://people.uncw.edu/kozloffm/EDN523crosssectandlong.html>]

Surveys provide a cross-sectional slice. By cross-section, I mean, right now. A slice of what? Of the values of different variables in the sample being studied; e.g., size of support network, income, job satisfaction, and health for different segments of a population. By analyzing the data (comparing the values of the different variables), we can determine relationships, perhaps causal ones. For example, the might find that women have larger support networks than men. And, holding income constant (i.e., examining people within the same income groups) women (with larger support networks) have fewer illnesses per year). In addition, we can construct typologies (e.g., types of life-styles).

Surveys can be done periodically with the same sample of persons, to determine change over time. This is a **longitudinal** study of the *panel* type. Another kind of longitudinal study is a **cohort study**. Here, you examine samples (which could be a groups) of persons who are already in different phases of a process (e.g., a group of persons who have just learned that their child has a severe impairment; another group who has "had" an impaired child for one year after the diagnosis, etc.) Or, you could collect information on a large number of persons, and then create sub-samples (cohorts) of people of different ages or in different phases. When you analyze the data, you first get a picture of the values of variables **within** each cohort. By comparing the analyses **across** cohorts, you get a picture of historical/processual changes; e.g., what life is like for people at different phases of parenting children with severe disabilities. You can see that the panel study may be more valid (since it is the same people over time); however, it is more expensive.

Surveys generally use **structured interviews** and **questionnaires**. However, in some surveys, you can draw a smaller sub-sample and do direct observations as well (so as to get a richer picture).

III. Experiments. Experiments involve collecting data on groups of people (from small groups to samples of communities or larger units) that have experienced differential exposure to some variable or variables (the "condition"). Experiments are of several kinds.

- A. Laboratory Experiments**, in which participants are studied in a place established by the experimenter; e.g., a laboratory study in which children in a play room are reinforced by an adult every time they put their toys away or clean up after themselves, in order to test the effects of reinforcement on cleaning-up behavior.
- B. Field Experiments**, in which participants are observed in natural surroundings, such as existing classrooms, in stores, on the street, and at the beach. For example, at a national park, the experimenter might reinforce children whenever they put trash in trash cans. Obviously, the **generalizability** of the findings from the field experiment is likely to be greater than that from a laboratory experiment. However, the laboratory allows more control over possible sources of contamination. (There always are trade-offs).
- C. Contrived Experiments**, in which the experimenter (either in a laboratory or in a field setting) **manipulates** participants' exposure to the experimental variables whose effects are being studied.
- D. Naturalistic Experiments**, in which the experimenter has little or no control over the participants' exposure, or perhaps even over possible extraneous variables. Examples of naturalistic experiments include:
 - 1) studies of changes in social support, cooperation, and interpersonal sentiments before and after a natural disaster; 2) differences in students' enjoyment of the learning process, and accomplishments, under different instructional situations (self-paced vs. teacher-paced; peer-tutoring vs. independent work); and 3) staff morale and rate of job turnover, and scores on student achievement tests, before and during ABC legislation.

Numerous experimental designs (e.g., the pre-test, post-test, experimental and control group design vs. the time series design) and experimental procedures (e.g., blind vs. double-blind; random allocation vs. matching) are employed to

weaken rival hypotheses and to provide evidence of a causal connection between the independent (experimental) variable(s) and the dependent variable(s). The designs and procedures differ in their cost, feasibility, ethical acceptability, and inference-power.

Experiments can use all of the recording methods described above.

IV. Documents. Massive quantities of documents exist that describe members' doings at various levels of social organization. Examples include: (a) Statistical Abstracts of the United States (which contains everything you might ever want to know); (b) records kept by towns, cities and states on property values, home ownership, migration, energy production and consumption, employment, taxation, hospitals and schools, suicide, and all sorts of crimes; and (c) records kept by formal and informal organizations, such as corporations, political parties, churches, and hot-lines.