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***Social Science
Research Methods***

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Overview

- Ethical Considerations
- Survey Research
- Verbal Protocol Analysis
- Field Studies
- Case Studies
- Clinical Studies
- Proposals & Presentations next week

Ethical Considerations

- Two main issues
 - ★ **Treatment of subjects**
 - ◆ Informed consent
 - ◆ Deception
 - ◆ Debriefing
 - ★ **Honesty and integrity of the research process**
 - ◆ Academic fraud
- Institutional Review Boards
- Tuskegee Study
 - ★ **Withheld treatment from subjects for 40 years to study effects of disease**
- Cyril Burt's studies on intelligence in twins

Ethical Considerations

- Recall our discussions of research communities
 - ★ Consider the effect a study might have on the possibility or success of future research
- Coercion
 - ★ Grades
 - ★ Extra credit
 - ★ Etc.

Ethical Considerations

■ Milgram Study

- ★ Subjects were deceived as to their roles and purpose of study
- ★ Subjects were easily induced to impose “cruel” treatment on secret confederates of researcher believed to be other subjects
- ★ Did the ends justify the means?
- ★ In fact, subjects were extensively debriefed and evaluated in follow-up studies

Ethical Considerations

■ General Rules

- ★ Do not put people at risk
- ★ Do not violate the norms of informed consent
- ★ Do not convert public resources to private gains
- ★ Do not damage the environment
- ★ Do not conduct biased research

Ethical Considerations

■ APA Guidelines

- ★ General Considerations
- ★ Participant at Minimal Risk
- ★ Fairness, Responsibility and Informed Consent
- ★ Deception
- ★ Debriefing
- ★ Freedom from Coercion
- ★ Protection of Participants
- ★ Confidentiality

Ethical Considerations

■ Ethics of Animal Research

- * General
- * Personnel
- * Facilities
- * Acquisition
- * Care and Housing
- * Justification of Research
- * Experimental Design
- * Experimental Procedure
- * Field Research
- * Educational Use
- * Disposition

Ethical Considerations

■ Hawthorne Study

- ★ Factory workers informed of study of productivity
- ★ Workers, eager to please, worked harder, were more punctual, took shorter breaks, etc.
- ★ No true measure of productivity
- ★ This has given its name to the “Hawthorne Effect”
- ★ Deception is used to misdirect subjects
- ★ Creates need for debriefing

Survey Research

- Survey research studies large and small populations (or universes) by selecting and studying samples chosen from the population to discover the relative incidence, distribution, and interrelations of sociological and psychological variables (K&L p. 599)
- Field studies with a quantitative orientation
- Scientific research *NOT* status surveys, opinion polls, etc.

Survey Research

- Sociological facts
 - Opinions
 - Attitudes
 - Behavior
-
- Relevance of sampling theory

Survey Research

■ Types of Surveys

★ Interviews

- ◆ Schedules

★ Panels

★ Telephone Surveys

★ Mail Questionnaires

- ◆ Low response rates

- ➔ Follow-up

Survey Research

■ Methodology

* Flow plan

- ◆ Specific questions
- ◆ Operationalization
- ◆ Sample and sampling plan
 - ➔ Multistage and areas sampling
 - ➔ Quota sampling – avoid
- ◆ Interview schedule
- ◆ Measuring instruments
- ◆ Research design – cross-sectional v. longitudinal
- ◆ Data collection
- ◆ Analysis
 - ➔ Coding
 - ➔ Tabulation
 - ➔ Analysis & Interpretation

Survey Research

- Checking Survey Data
 - ★ Re-interview
 - ★ Outside criterion / data
- Relevance to educational research

Survey Research

- Advantages and disadvantages
 - ★ Wide scope
 - ★ Accurate (within sampling error)
 - ★ Often superficial
 - ★ Demanding of time, energy and money
 - ★ Can change social context
 - ★ Requires good research knowledge and sophistication

Survey Research

■ Meta-analysis

- ★ Surveys of literature on a particular topic
- ★ Unit of analysis is individual studies
- ★ Measure effect sizes (using Cohen's d -statistic)
- ★ Typically report studies, sample sizes and effect sizes
- ★ Try to determine overall effect across studies

Survey Research

■ Meta-analysis

★ d-statistic

$$\frac{M_t - M_c}{SD}$$

where M_t is the treatment mean, M_c is the control mean, and SD is the pooled standard deviation (or the standard deviation for the control group)

Verbal Protocol Analysis

- At least for some cognitive tasks we can provide information about "what we are thinking" by verbally describing what is going through our mind while performing the task. This type of data is referred to as a verbal protocol
- Newell and Simon pioneered and championed the use verbal protocols. They felt that the systematic collection of these types of observations could be used to test information processing models of human reasoning

Verbal Protocol Analysis

- Typically VERY time-consuming and hence usually small sample sizes
- Requires
 - ★ Researcher to prompt for verbal protocols
 - ★ Recording of verbal protocols
 - ★ Coding of verbal protocols
 - ★ Analysis

Field Studies

- Nonexperimental scientific inquiries aimed at discovering the relations and interactions among sociological, psychological, and educational variables in *real social structures*

Case Studies

- Researcher Robert K. Yin defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 1984, *Case study research: Design and methods*. Newbury Park, CA: Sage, p. 23).

Case Studies

- Case study research excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research.
- Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships.
- Researchers have used the case study research method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods.

Clinical Studies

- In addition to the scientific and artistic groups, there is a third group of researchers who struggle with the subjective nature of knowledge and practice and who employ descriptive, interpretive, and non-quantitative means in their work and study: the clinicians. Like their counterparts in the sciences, arts, and humanities, these clinical researchers also use qualitative methods in their research and reflection: case study, participant observation, long interviews, grounded theory, as ways of knowing and not knowing. Unlike the scientists and the artists, these clinicians are organized by the praxis of their work: They must use methods which produce practical distinctions which can be used in real-time decision making and/or problem solving. This style of applied research is more immediate for the clinician.

A Case for Clinical Qualitative Research by Ronald J. Chenail

The Qualitative Report, Volume 1, Number 4, Fall, 1992

(<http://www.nova.edu/ssss/QR/QR1-4/clinqual.html>)

Proposals & Presentations next week

■ For final proposals

- ★ Select a 'target journal'
- ★ Find their manuscript submission requirements
- ★ Prepare your proposal in this format (this should already have been done!)
- ★ Tell me what you used in the note enclosing the submission in the drop box
- ★ Return drafts with my comments next week!

Proposals & Presentations next week

■ Presentations

- ★ Plan on 5 minutes + some brief set-up
- ★ There will be no discussants
- ★ Submit PowerPoint slides to Digital Drop box
- ★ You may, but do not need to, distribute handouts, copies of the proposal or other visual aids

Proposals & Presentations next week

- Prepare 7 PowerPoint slides covering:
 - ★ Research Question(s)
 - ★ Model
 - ★ Variables
 - ◆ Definitions and Measures
 - ◆ Reliability and validity
 - ★ Hypotheses
 - ★ Research Design
 - ★ Proposed Analyses