

Chapter 11. Unobtrusive Research

- In unobtrusive research, researchers do not have direct contact with people. Therefore, subjects' behavior are not affected by the research itself.
- Topics covered in this chapter
 - Types of unobtrusive research
 - Content research
 - Analysis of existing data (secondary data analysis)
 - Historical/comparative analysis

What are the three types of unobtrusive research?

- Content analysis
 - In content analysis, researchers examine a class of social artifacts, typically written documents.
- Analysis of existing statistics
 - Many governmental and other agencies collect official or quasi-official statistics.
 - Researchers use existing government statistics or published secondary data sets to conduct research.
- Historical/comparative analysis
 - Historical/comparative analysis is a qualitative method in which a researcher attempts to use historical records to master many subtle details.

What are the topics appropriate for content analysis?

- Any form of communication - books, magazines, speeches, poems, newspapers, laws, and constitutions, etc.
- Answering "who says what, to whom, why, how and with what effect?"

What are the procedures for content analysis?

- Units of analysis, units of observation, and sampling
- Coding: Process of transforming raw data into a standardized form.
 - Manifest vs. latent coding
 - Conceptualization and the creation of code categories
 - Counting and record keeping
- Conducting analysis - statistical tests

What are the issues related to units of analysis, units of observation, and sampling in content analysis?

- Typical units of analysis in content analysis
 - Books, chapters, pages, paragraphs, lines, newspaper ads, etc.
- Typical units of observations
 - Sometimes multiple units of observations are needed. The TV violence and sponsor example in the textbook shows that one needs to observe commercials and programs at the same time.
- Sampling
 - Probability sampling methods can be used. In the example of TV program sampling, one needs to randomly select channels, days, and times. In an example of newspaper personal ads we will talk about later, one needs to select which newspaper, which dates, and which ads.

What are the issues related to coding methods in content analysis?

- Coding is the process of transforming raw data into a standardized form. There are two general types of coding methods in content analysis:
 - Manifest coding: Visible surface content, and its coding approximates the use of a standardized questionnaire, reliable but less valid.
 - Example: To measure how romantic a novel is, count how many times the word "love" shows up in the novel. While different people counting the same novel usually will come up with the same count (high reliability), one may argue that the frequency of the word "love" does not accurately represent how romantic the novel is (low validity). A novel without the word "love" may be very romantic while a novel with high frequency of the word "love" may not be romantic at all.
 - Latent content: Reflects the underlying meaning, more valid but less reliable
 - Example: Instead of counting the frequency of the word "love", one reads the novel and make a subjective judgment as to how romantic the novel is. While this method is quite valid in reflecting the reader's judgment, different readers may come up with different judgment (low reliability).

How to determine coding categories?

- Quantitative data
 - Make sure coding categories are exhaustive and mutually exclusive
 - Need to decide how many attributes to use
 - Record keeping: important to clearly distinguish between unit of analysis and unit of observation.
 - Record the base
 - If one counted 200 romantic words in two novels, it is important to know how long the novels are. If Novel A has 20,000 words and Novel B only has a total of 10,000 words, then one knows that Novel B has a higher frequency of romantic words.
- Qualitative data
 - Negative case testing
 - Exam records for patterns and generate hypothesis
 - Find disconfirming cases
 - Fine-tune the hypothesis or abandon the hypothesis if cannot be fine-tuned.

What are the strengths of content analysis?

- Economy of time and money.
- Easy to repeat a portion of the study if necessary.
- Permits study of processes over time.
- Researcher seldom has any effect on the subject being studied.
- Reliability.

What are the weaknesses of content analysis?

- Limited to the examination of recorded communications.
- Problems of validity are likely.

Here is an example of content analysis:

- Gonzales, M. and Meyers, S. (1993). "Your mother would like me": Self-presentation in the personals ads of heterosexual and homosexual men and women. Personality and Social Psychology Bulletin, 19(2), 131- 142.
- Exams self-presentation strategies in the personals ads for heterosexual and homosexual men and women.

- Theory: Social exchange theory
- Hypotheses:
 - To the extent heterosexuals are looking for longer-lasting relationships than homosexuals, they are more likely to use terms related to sincerity and security than homosexuals are.
 - Because heterosexuals' ads are likely to reflect traditional gender stereotypes, the ads of men and women are expected to reflect social exchanges forces. Specifically, women will offer resources men seek, and men will offer resources women seek.
 - For characteristics less important to building a long-term relationship (i.e., attractiveness, expressiveness, instrumentality, sexual references), sexual orientation will not be so powerful a predictor of ad contents ad gender. Specifically, women will make more offers of instrumentality and more appeals for expressiveness than men.
 - Heterosexual women will make more offers of attractiveness than other advertisers
 - Lesbians will make fewer offers of or appeals for attractiveness than other advertisers.
 - Gay men will make significantly more offers of and appeals for sexual characteristics or activities than other advertisers.

- Sampling
 - Personals ads were selected from three geographical regions (New York, San Francisco Bay Area, and Midwest).
 - Nine newsprint publications.
 - Published between Oct. 1988 to May 1989
 - Total personals ads: 2,008
 - Randomly selected 25 ads written by hetero men, hetero women, homo men, and homo women in each of the three geographic region
 - Final sample size: 300 (25 ads x 2 genders x 2 sexual orientations x 3 regions)
 - Note the first stage of selecting newspaper has a quota sampling nature in it. The second stage of selecting 300 from the total of 2,008 is a stratified sampling method.

- Note the difference between unit of observation and unit of analysis

- Unit of observation
 - Personals ads
- Unit of analysis
 - Individuals who placed personals ads

- Coding

- General information: source, gender, sexual orientation, race, age, height, weight, hair color, eye color, type of relationship sought (marriage, occasional), and total number of words in ad
- Frequency of words in each of the six content categories (offer and appeal, so a total of 12):
 - Attractiveness: examples: cute, attractive, slender
 - Financial security: examples: accomplished, established, generous
 - Expressiveness: examples: affectionate, caring, empathic, sensitive
 - Instrumentality: aggressive, ambitious, competitive, intelligent
 - Sincerity: commitment-minded, considerate, dependable, faithful
 - Sexual references: any reference to physical contact, explicit sexual behavior
- A master list of words is used (see examples above). Manifest coding.
- Each ad was coded by 2-10 trained raters. Discrepancies were resolved by consensus.

- Results

- Gay men emphasized physical characteristics most and lesbians least.
- Heterosexual women mentioned attractiveness more than lesbians did.
- Women solicited more expressiveness traits and offered more instrumental traits than men.
- Gay men mentioned sexuality more than other advisers.
- Heterosexuals were more likely than homosexuals to pursue long-term relationships and to mention sincerity and financial security.

An example of results organized in a Table

Heterosexual

Ad Contents	Men (n=75)	Women (n=75)
Attractiveness offer	63%	71%
Attractiveness appeal	45%	45%
Security offer	53%	43%
Security appeal	5%	32%
Expressiveness offer	35%	31%
Expressiveness appeal	21%	44%
Instrumentality offer	13%	29%
Instrumentality appeal	15%	27%
Sincerity offer	16%	8%
Sincerity appeal	12%	19%
Sexual offer	3%	1%
Sexual appeal	3%	3%

What topics are appropriate for analysis of existing data?

- Quantitative analysis where good existing data sets exist

What are the sources of existing data?

- Sources of existing statistics
 - The Statistical Abstract of the United States
 - <http://www.census.gov/prod/www/statistical-abstract-03.html>
 - ICPSR
 - <http://www.lib.utah.edu/icpsr/index.html> (U. Of U. page)
 - <http://www.icpsr.umich.edu/> (ICPSR home page)
- Many exiting data are very large and complicated. Extensive training in statistics and computer programming is usually required.
- When using data with the unit of analysis being groups, one needs to be careful about ecological fallacy (drawing conclusions about individuals when the unit of analysis is group).
- Replication and logical reasoning are often used to deal with problems of validity in analyzing existing data

What are the strengths and weaknesses of analyzing existing data?

- Strengths
 - Efficiency - time and money
 - Unobtrusive
 - Government data usually have very good sampling design
- Weaknesses
 - The data may not reflect a particular measure or a particular question that a social scientist has constructed.
 - Problem with reliability: Reliability is dependent on the quality of the statistics

An example of research using existing data

- Parcel et al. (1996). The effects of parental work and maternal nonemployment on children's reading and math achievement
- Using a sample of 1,067 9- to 12-year-old children of working and nonworking mothers from the 1992 National Longitudinal survey of Youth's Child-Mother data set, the authors studied the impact of parental work on children's reading and math achievement

- Theories
 - James Coleman's theory regarding family social capital
 - Mel Kohn's ideas regarding work and personality
- Major Hypotheses:
 - Maternal nonemployment per se will generally not be an asset to older children's cognitive outcomes

- Sample
 - Secondary data: National Longitudinal Survey of Youth (NLSY).
 - Ongoing national survey begun in 1979 by the National Opinion Research Center in Chicago and the Center for Human Resource Research at Ohio State.
 - Originally a multistage stratified area probability sample of 12,686 youth who were 14-21 in 1979.
 - Reinterviews occurred each year
 - This study used the Merged Child-Mother data in 1992

- Unit of observation for the NLSY Child-Mother data:
 - Each of the biological children born between 1979 and 1992 of the NLSY cohort women.
- For this study, the sample is
 - 9- to 12-year-old children of employed and nonemployed mothers in 1992.
 - If a mother has more than one child aged 9-12 in 1992, researchers randomly selected one child for this study.

- Measurements
 - Dependent variables:
 - Math and reading achievement: the Mathematics and Reading Recognition assessments from the PIAT
 - Major independent variable:
 - Occupation complexity: 19-item-based occupational complexity scale (Parcel, 1989)
 - Work hours: not working, (low part-time hours (1-20), high part-time hours (21-34), full-time hours (34-40), and overtime hours (more than 40).
 - For measurement of other variables see Table 1 on page 472.
 - For descriptive statistics of the sample see Table 2.

- **Statistical method used for hypothesis testing**

- **Multiple regression**

- If you have taken a statistics course, you may be familiar with this method. If not, just know that this is a method that can isolate the effect of each variable while controlling for the effect of other variables.

- **Findings**

- Parental work does not have strong direct effects on cognitive outcomes of 9- to 12-year-old children.
- The most important predictors of PIAT scores were the personal characteristics of children as well as maternal cognitive ability and spouse's education.
- Low birth weight can profoundly affect children's cognitive development.

Comparative and Historical Analysis

- Topics appropriate to historical/comparative research
 - Tracing the development of social forms over time
 - Comparing development process across culture
- Procedures
 - Analytical techniques
 - Verstehen - understanding
 - Hermeneutics - interpretation
 - Ideal types - patterns
- Sources of data
 - Diaries, official documents, publications
- Cautions
 - Can't trust the accuracy of records - official or unofficial, primary or secondary.
 - Must be wary of bias in data sources.