

Case Study

Research Methodology Lecture 12

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Preparing for Data Collection

- Learning or practicing skills of investigation
- Training for a specific case study
- *Development of a protocol for investigation*
- Conduct of a pilot case study, if your study has multiple cases as generally academic works do.

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Preparing for Data Collection

- Skills Desired in Investigator
 - Able to ask ‘good’ questions and interpret answers
 - A good listener and not trapped in ideologies and preconceptions
 - Adaptive and flexible to new situations (make them into opportunities)
 - Good grasp of issues being studied
 - Unbiased by preconceived notions/ sensitivity and responsiveness to contradictory evidence

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Preparing for Data Collection

- Research is as much about questions as about answers-
Generative questions, follow-up Qs
- Listening: catching exact words and orientations, mood and expressions and context, seeks more ‘information’ inferences ‘between the lines’
- Questions, answers, immediate inferences, restructuring to seek out contradictions or corroboration etc. > like detective work!
- Use of multiple investigators and training seminar
 - Training Discussions on How and Why the study, What evidence is sought, What variations anticipated, supportive/contrary evidence

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Case Study Protocol

- A Protocol has
 - Instruments
 - Procedures
 - General Rules
- And is used/useful in
 - Clarifying the nature of case study to investigators
 - Increasing reliability of Case Study Research
 - Helping guide the investigator
 - Investigators can anticipate problems and prepare for it
 - Avoid disastrous outcomes

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Contents of Case Study Protocol

- A Protocol document may be sectioned into
 - An overview of the case study project (project objectives and auspices, letters of introductions, substantive/case study issues, and relevant readings about the topic being investigated)
 - Field Procedures (credentials and access to case study sites, general sources of information, and procedural reminders)
 - Case study questions (the specific questions that the case study investigator must keep in mind in collecting data, 'table shells' for specific arrays of data, generative questions and the potential sources of information for answering each question)
 - A guide for the case study report (outline, format for the narrative, and specification of any bibliographical information and other documentation)

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Field Procedures

- Procedures for collection of data from existing people and institutions in a real-life context and not in controlled confines of a laboratory, library, structured questionnaires
 - Suit interviewee schedule and availability, open-ended interviews, intrusion into the real world of the subject >> act as an observer and it is the researcher whose behavior is constrained
 - Explicit and well planned field procedure regarding 'coping' behaviors and guidelines.
 - Gaining access to key organizations and interviewees
 - Sufficient resources in field, pens, papers, place to work and write notes in private
 - Procedure of calling assistance and guidance while in need
 - Clear schedule of data collection and provision for unanticipated events such as interviewee availability, mood and motivation etc.

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Case Study Questions

- Case study questions (the specific questions that the case study investigator must keep in mind in collecting data, 'table shells' for specific arrays of data, and the potential sources of information for answering each question)
 - The questions are posed to researcher and not to respondent
 - Prompting function
 - Likely sources of evidences eg. interviewees, documents or observations
 - Questions should reflect the full concerns of the study
 - Level 1: Question asked of specific interviewees
 - Level 2: Question asked of the individual case
 - Level 3: Questions asked of findings across multiple cases
 - Level 4: Questions asked of an entire study
 - Level 5: Normative questions on policy recommendation/conclusion

A Sample Protocol Question

- How is the program organized, who is employed by it, when are decisions made, and who makes them?
 - *Sources of data:* Program director, Director's immediate supervisor, Organizational chart, Job descriptions
 - *Strategies:*
 - Obtain or draw an organizational chart that shows location of the program office
 - List the type and number of instructional and non-instructional personnel (including specialists, coordinators, managers)
 - To whom does the program director report?/ Who reports to the program director/ Whom does the program director supervise?/What kind of decisions does the director have to formally sign off and with whom?
 - Create an organizational chart of the program linking directors, intermediaries and principals, regular teachers and special teachers.
 - Fill in the following table by ranking the order in which the following decisions and events occur.

	Order	Month completed in CY 2014	Month completed in CY 2013	Title of people involved in decision
Determining Budget				
Hiring or firing of staff				
Assigning staff to classes				
Purchasing of Materials and Equipments				
Deciding subjects and grades				
Testing students				
Selecting students				
Selecting internship places				
Evaluating internships				
Preparation and submission of application for funds				

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...Other points of preparation

- A guide for the case study report (outline, format for the narrative, and specification of any bibliographical information and other documentation)
- A PILOT Case Study
 - Not a pre-test though

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Three Principles of Data Collection

- **Maintain a Chain of Evidence**
 - Citations, time, circumstance and place of interview, following protocol
- **Create a Case Study Database**
 - Case study notes, documents, tabular materials, narratives (open ended answers)
- **Using Multiple Sources of Evidence**
 - Multiple points within a type of source also
 - Triangulation
 - Data sources, investigators, perspectives, methods

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Six Sources of Data

Source of Evidence	Strengths	Weaknesses
Documentation	Stable, unobtrusive, exact, broad coverage	Biased selectivity, reporting bias, access
Archival Records	Stable, unobtrusive, exact, broad coverage, quantitative	Biased selectivity, reporting bias, accessibility due to privacy reasons
Interviews	Targeted, insightful	Bias due to poor questions, response bias, inaccuracies due to poor recall, reflexivity
Direct Observations	Real, contextual	Time consuming, selectivity, reflexivity, cost
Participant Observation	Real, contextual, insightful	Time consuming, selectivity, reflexivity, Cost, possible manipulation
Physical Artifacts	Insights into culture and technique	Selectivity, availability

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General Analytical Strategies

- Make case study data conducive to statistical analysis?
 - ‘Quantitative’ case study possibility limited to embedded case designs
- Arrange data into traditional orders
 - Different arrays, matrix of categories, data display flow-charts, frequencies and second order statistics, chronological/temporal orders, etc.
- **Theoretical Propositions and alternate interpretations strategy**
- **Developing a case description through a descriptive framework strategy**

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Analyzing Case Study Evidence

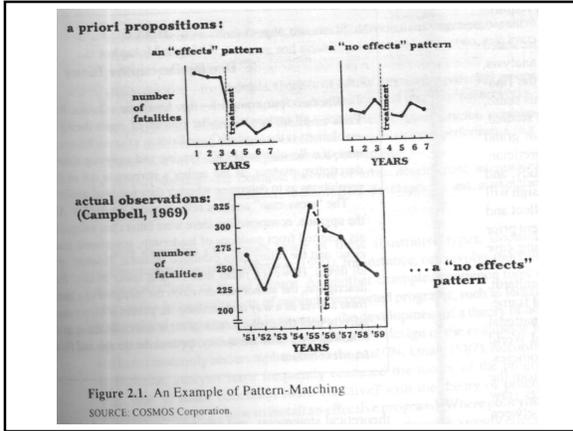
- Analysis is a mode of investigating ‘truth’ of a complex phenomenon unit in which it is broken up into constituent elements
 - Is this possible in holistic case study design?
- Data analysis consists of
 - Examining, categorizing, tabulating or otherwise recombining the evidence to address the initial propositions of a study
- Analytic techniques used in Case Studies are
 - **Pattern-matching, explanation-building, time-series analysis and program-logic models**
 - Unlike statistical analysis, these analytic techniques have few fixed formulas or cookbook recipes!

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Dominant Modes of Analysis

- **Pattern Matching**
 - Empirical pattern > Theoretical Pattern, alternative patterns
 - ‘Non-equivalent, dependent variables design’
 - Rival explanations as patterns –matching of independent variables with similar outcomes
- **Simpler pattern matching**
 - The fewer the variables (dependent or independent or both), the stronger/more dramatic the pattern match and the need to firm up conclusiveness
- **Precision of pattern matching**
 - Interpretive discretion
 - Gross match or mismatch has more validity

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Dominant Modes of Analysis

- **Explanation Building**
 - Special case of pattern matching
 - Explanation is 'stipulation of a set of causal links' > similar to independent variables > situation of complex mix without possibility of precise measures
- **Iterative Nature of explanation-building**
 - Making an initial proposition
 - Comparing the findings of an initial case against such a proposition
 - Revising the statement or proposition
 - Comparing other details of the case against the revision
 - Again revise the proposition
 - Comparing the revision to the facts of a second, third or more cases...Repeating this process as many times as is needed.

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Dominant Modes of Analysis

- **Time Series Analysis**
 - Tracing sequence of changes in a single dependent or independent variable as several data points in series in time
 - Case studies are good sources to trace change over time although sometimes a variable may have no clear starting and ending points.
- **Logic of time series design**
 - Seeking match between a trend of data points compared with
 - A theoretically significant trend specified before the onset of investigation, versus
 - Some rival trend, also specified earlier
- **Complex time series**
 - Variables with dual patterns or varying patterns as they interact with other variables
- **Chronologies**

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Ex. A Descriptive Framework

- Middletown (Lynd & Lynd, 1929)
 - Chapter1: Getting a Living
 - Chapter2: Making a Home
 - Chapter3: Training the Young
 - Chapter4: Using Leisure
 - Chapter5: Engaging in Religious Practices
 - Chapter6: Engaging in Community Activities
- Range of topics
- Organization of analysis
- Causal links

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Case Study 'Report'

- One may have started with the idea of the composition/chapterization of report already
- Consult a text book on writing research report, taking notes, making outlines, making schedule of composition, collating etc.
- The report is not a documentation exercise recording or storing evidences of the Case Study (Case study database and Case Study notes)

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Case Study 'Report'

- Procedures in Doing a Case Study Report
 - Write > get commented > revise/rewrite routine
 - When and How to start writing
 - “You cannot begin writing early enough”
 - Literature review, bibliography, methodology
 - Descriptive data before analysis and after collection
 - Draft, revise, add details
 - Case identities: real or anonymous?
 - Review of Draft > A validating procedure
 - Peers, participants, informants, colleagues

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Case Study 'Report'

- Steps to be followed
 - Identifying the Audience for the Report
 - Developing the compositional structure
 - Procedures of review and
 - And, in conclusion, speculation on the characteristics of an exemplary case study

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Case Study 'Report'

- Audience for the Report
 - Diverse audience compared to other researches
 - Colleagues in the same field
 - Policy makers, practitioners, community leaders
 - Dissertation or thesis committee
 - Funding agencies and practical users of research
- Likely to go to Non-specialists & Academic audience at the same time!
- Write the report to suit the major audience

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Case Study 'Report'

- Write the report to suit the major audience
 - Colleagues: findings and implications on previous theories
 - Non-specialists: portraits of real-life events and implications for action
 - Thesis Committee: mastery of methodology and theoretical issues, care of study and analysis
 - Research funders: significance of findings
 - We may also make several versions for effective communication with different groups
 - Dissemination as a report more than a journal article!

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Case Study 'Report'

- Write the report to suit the major audience
 - emphasis
 - detail
 - Compositional form
 - Suitable length
- Dissertation reports are written for their only audience: the Dissertation Committee- incorporation of the committee members' past works and experience is a deliberate good strategy

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Case Study 'Report'

- Varieties of Written Reports
 - Single narrative description and analysis of a single case
 - Tabular, graphic or pictorial embellishments
 - Multiple cases as multiple narratives in different chapters/ sections.
 - Series of questions and answers based on the database directly >> particularly great for cross case analysis of issues of interest to particular readers
 - Multiple case study as a single narrative

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Case Study 'Report'

- Illustrative Structures for Composition
 - Linear Analytic Structures
 - Problem statement, literature review, methods, data analysis and findings, conclusions and implications
 - Comparative Structures
 - 'facts' restated in conjunction with different conceptual models
 - Chronological Structures
 - Theory Building structures >not for descriptive case
 - 'Suspense' structures >only for explanatory studies
 - Unsequenced structures >only for descriptive case

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