

Case Study

Research Strategy Lecture 11

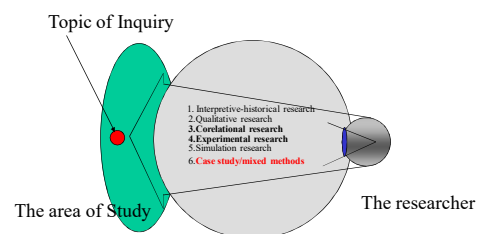
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Research Strategies

- Various Research Strategies
 - Interpretive-Historical Research
 - Archival Studies
 - Qualitative Research
 - Grounded Theory, Ethnography, Interpretivism and Phenomenology
 - Co-relational Research
 - Survey Research
 - Experimental and Quasi-experimental Research
 - Causal Relation
 - Simulation and Modeling Research
 - Case Studies

Strategy	Form of research Question	Requires Control over behavioral events?	Focus on Contemporary events?
Experiment	How, Why	Yes	Yes
Survey	Who, What, Where, How many, How Much	No	Yes
Archival Analysis	Who, What, Where, How many, How Much	No	Yes/No
History	How, Why	No	No
Case Study	How, Why	No	Yes

The Strategy Screen



Groat & Wang

Definition

- A Case study is an empirical inquiry that
 - Investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident
- Contrastingly, an experiment deliberately divorces a phenomena from the context
 - Limiting variables
 - Controlled context in Laboratory
- Historical studies also deal with entangled phenomena and context
- Surveys - limited ability to investigate context

The Case Study

- Exploratory Case Study
- Descriptive Case Study
- Explanatory Case Study

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The Case Study

Case Study Strategy best for

- How or Why question
- Contemporary set of events
- Investigator has little or no control over the set of events

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Definition

- Real-life situations blur or make phenomenon and context indistinguishable – other technical characteristic of research strategy, data collection and analysis also need definition
- The Case Study enquiry
 - Copes with the technically distinguished situation in which there will be many more variables of interest than data points, and as one result
 - Relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
 - Benefits from the prior development of theoretical propositions to guide data collection and analysis.

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Designing Case Studies

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Research Design

- Research design > plan of research > an action plan for getting here to there > links the empirical data to the research questions and its conclusions
 - Major steps of Collection and Analysis of DATA
- Guides the investigator in the process of collecting, analyzing and interpreting observations. It is a *logical model of proof* that allows the researcher to draw inferences and also defines the domain of generalizability

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Research Design

- Addresses at least four problems
 - What questions to study
 - What data is relevant
 - What data to collect
 - How to analyze the data and results
- Research design is more than just a work plan > it deals with a *logical* problem and not a *logistical* problem.

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Designing Case studies

- No standard reference of design elements or approaches and case study research designs are not fully codified
- Five components of Case study research design
 - The study's Questions,
 - propositions (purpose),
 - units of analysis,
 - the logic linking the data to propositions, and
 - the criteria for interpreting the findings

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1. Designing Case studies

- The study Questions
 - **How and Why questions**
 - **Substance of the question**
 - **well stated, unambiguous and clear question**
 - Well begun is half done and begin with the questions!
- Why the urban poor are hit most by housing shortage?
- How may their access to housing be improved?
- How may we establish a participatory process in the conservation, operation and management of urban services in a degenerating traditional town?

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2. Designing Case studies

- The propositions, if any (purpose)
 - Propositions define or help define the scope of the study
 - Propositions are important components of a tentative answer to the question and give directions to study?
 - It can tell what evidence to look for where
 - Set feasible limits to research/study
 - The urban poor have lost access to land
 - The Guthi system may be reconstructed to match modern town services management practices
- Exploratory studies: statement of purpose instead of propositions

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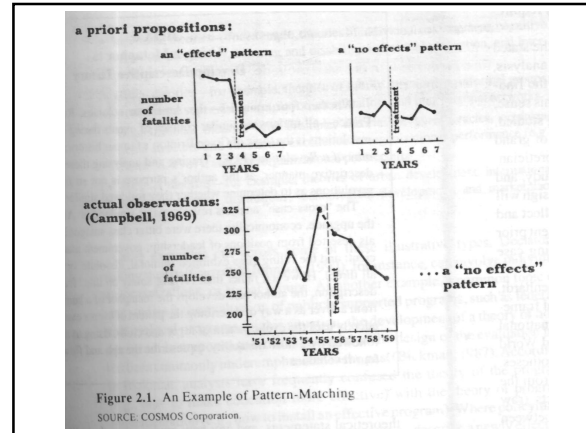
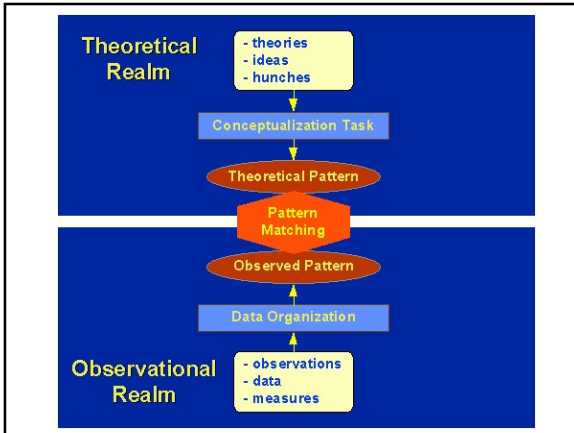
3. Designing Case studies

- The unit of analysis
 - This fundamentally defines the 'case'
 - Individual (life histories, successful local industrialist, working women, educated girls)
 - Decisions, programs, implementation process, event
 - The urban poor, the traditionally marginal caste group, the marginalized ethnic group, Tole, traditional degrading Tole, etc.
 - Can tell whether you need single or multiple cases
 - Responds to the question and analytical horizon
 - Time boundaries of the case
 - Previous studies

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4/5. Designing Case studies

- Linking the data to propositions
- Establishing the criteria for interpreting the findings
 - Both a quick widely defined at present and are not 'precise' as yet
 - Pattern matching, matching data to proposed patterns or two patterns as rival patterns
 - How close a match? How great a contrast is conclusive?
- **Limited guidance on the design issues 4 and 5!**



Theory in Case Study

- The five points of Research Design combine to force construction of a preliminary theory related to the topic
 - Case study research demands theory development prior to data collection
 - Without the theory the scope of data collection remains undefined
 - Theory has to link the context and event

A Sample Theory

- The case study will show why implementation only succeeded when the organization was able to re-structure itself, and not just overlay the new MIS on the old organizational structure
- The case study will also show why the simple replacement of key persons was not sufficient for successful implementation
- Such 'Theory' link all the five points of design: question, proposition, unit of analysis, linking data to propositions & criteria for interpretation

Theory and Generalization

- Theories may be constructed from literature studies, earlier case studies etc. It is an important and serious work deserving good time and thought
- Theory and analytical generalization (as different from statistical generalization): template of comparison is a previous or parallel theory

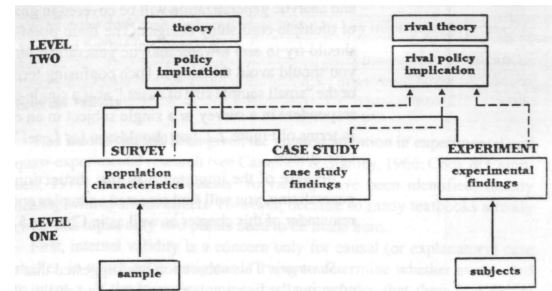


Figure 2.2. Making Inferences: Two Levels

SOURCE: COSMOS Corporation

Validity

- Validity of research findings > reasonable construct of relations
- Reasonableness at different levels
 - Internal validity: accuracy of causality assumed in cause-effect construct
 - Conclusion Validity: accuracy of program-outcome construct
 - Construct validity: correctness of operationalization (inter-relation of cause-effect and program-outcome construct)
 - External validity: appropriateness of generalization.

Assuring Validity and Reliability in Case Study Research

tests	case study tactic	phase of research in which tactic occurs
construct validity	- use multiple sources of evidence - establish chain of evidence - have key informants review draft case study report	data collection data collection composition
internal validity	- do pattern matching - do explanation building - do time-series analysis	data analysis data analysis data analysis
external validity	- use replication logic in multiple-case studies	research design
reliability	- use case study protocol - develop case study data base	data collection data collection

Threats to Validity in Case Study

- Construct Validity
 - Sufficiently develop operational set of measures to limit subjective judgment during data collection
 - Multiple sources of evidence
 - establish and maintain a chain of evidence
 - use review by key informants (discussion of data recorded with the informant/group)

Threats to Validity in Case Study

- Internal Validity
 - Causal studies only >> whether event 'x' led to event 'y'? >> missing out on third factor? Check and assure
 - May be extended to the broader problem of making inferences > Whenever direct observation is not possible, investigator will 'infer' from interview or other evidence that event 'x' occurred due to some earlier events, etc.
 - Correctness of the inference, consideration of all other possibilities, Is the evidence convergent? Etc.

Threats to Validity in Case Study

- External Validity
 - Key barrier in Case studies – in Case studies there is no analogy to samples and universes-
 - Case Study allow analytical generalizations to theory and **not statistical generalizations**
 - The target theories need to be tested through replications
 - Replication Logic similar to that of experiments

Reliability in Case Study

- Reliability
 - Well documented procedure
 - Case Study protocol
 - Case study database
 - Conduct study as if someone is always observing >> parallel audit?

Basic Type Designs in Case Study Research

	single-case designs	multiple-case designs
holistic (single unit of analysis)	TYPE 1	TYPE 3
embedded (multiple units of analysis)	TYPE 2	TYPE 4

Case designs

- Rationale of Single case designs
 - Critical case in testing a well-formulated theory
 - Unique case
 - Revelatory case
- Holistic versus embedded case studies
 - More than one unit of analysis > embedded CS
 - Holistic CS may tend to be abstract/ lack clear data or measures > orientation of study might change
 - Embedded CS offer better focus to inquiry

Case designs

- Rationale of Multiple-case designs
 - Comparative judgment/robust and compelling
 - Not a *sampling* but *replication* logic
 - Selection of cases: (a) predicts similar results (*literal replication*) (b) produces contrasting results but for predictable reasons (*theoretical replication*)
 - Not used to assess the incidence of phenomenon/ must consider context, which has many variables of relevance.
 - At most three to six cases (depending on external validity issue)

