QUALITATIVE RESEARCH METHODS

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WHAT IS QUALITATIVE RESEARCH ?

- Example
- How is it different from quantitative research ?

Qualitative Research	Quantitative Research
Uses Words	Uses numbers
Concerned with meanings	Concerned with behaviour
Induces hypothesis from data	Begins with hypothesis
Case study	Generalizations

Adapted from Hammersley, 1992

Examples: 1. Child Marriage Practices in Syria   2. Online Social Networking Site.

OBSERVATION

- Not same as seeing. Noticing or watching using all 5 senses.
- Participant Observation: Observer participates in ongoing activities and records observations. "Player in action". Popular in Anthropology &Sociology,
- http://psc.dss.ucdavis.edu/sommerb/sommerdemo/observation/partic_more.htm
- Unobtrusive: Researcher is not in direct contact with participants. Non-reactive.
- Structured/Systematic Observation: Fixed number of points to notice. Example problems: Waste disposal patterns, weaning food preparation behaviour.
- How do you record observations ?

ADVANTAGES AND DISADVANTAGES

- Advantage: Directness
- Data from observation can complement with data from any other source[1]
- Access to people in real life situations
- Rich data source: Getting involved in the social group gives insight to the emotions and motives of the participant behaviour
- Disadvantages: Extent to which an observer affects the situation. How do we know what the behaviour would have been like it hadn't been observed.
- Time Consuming
- Observation Bias, Ethical Problems

TESTS AND SCALES

- Self reporting measuring instruments to assess abilities, views, opinions and attitudes.
- Tests provide a scale on which we can assess usually quantitatively the individual's performance standing on the attribute in question.
- "Should loan wavers be given to farmers"
- Caution: Arbitrary Scales
- Commonly Used Scale : Likert Scale
- Other Scales: Guttman Scale, Thurstone Scale , Semantic Differential Scale.
- Q Sort: Relative Position or ranking of an individual on a range of concepts
- Sociometric Scales: Relationship between individuals in a group.

SURVEYS

- Data collected from sample of elements (adult women) drawn from a well defined population (Adult women population living in Karnataka).
- Variables of interest are measured using self reports
- Strong preference for large random samples. Routinely uses random sampling
- Can be of varying length.
- Can be conducted in person, email, phone, post
- Non experimental survey using single variable
- Experimental Surveys

PROBLEMS WITH SURVEY

- How many alcoholic drinks do you consume in a typical day?
- ……..a lot more than average
- ……….somewhat more than average
- ……….average
- ……….somewhat fewer than average
- ……….a lot fewer than average

| Question Interpretation | → | Information Retrieval | → | Judgment Formation | → | Response Formatting | → | Response Editing |

PROBLEMS WITH SURVEY

- Not related to the content of the item but the context in which it appears: Context effects
- Item Order Effect :When the order in which items are presented affects the individual's response
- Response items can have unintended effects on people's responses.
- **ADVANTAGES**
- Polldaddy—http://www.polldaddy.com
- QuestionPro—http://www.questionpro.com
- SurveyGizmo—http://www.surveygizmo.com
- SurveyMonkey—http://www.surveymonkey.com
- Zoomerang—http://www.zoomerang.com
- snapsurvey

QUESTIONNAIRES

- Most common survey research instrument
- Open ended questions
  - Advantages
  - Disadvantages
- Close ended questions
  - Advantages
  - Disadvantages

Questions in user studies.

PROBLEMS WITH QUESTIONNAIRES

- Wording
- Suggestable questions
- No possibility of probing" Open Ended Questions
- Language
- Requires the researcher to have a good prior knowledge of the subject in order to generate realistic/likely response options before printing the questionnaire
- Long process of designing

INTERVIEWS

- Commonly one to one and face to face
- Lend themselves well to be commonly used with other methods. Example: Case study can employ interview with participant observation
- Types: Structured, Semi-Structured, Unstructured
- Respondent Interviews (Directed) or Informant Interviews (Non Directed)
- Training is essential as interviewer can control the quality of the result
- Parnell, K. J., Stanton, N. A., & Plant, K. L. (2018). What technologies do people engage with while driving and why?. *Accident Analysis & Prevention*, *111*, 222-237.

INTERVIEW ADVANTAGES

- Flexible and adaptable way of finding out
- Option of probing: "keen to follow up interesting developments and to let the interviewee elaborate on various issues" (Dörnyei, 2007: 136).
- Supplementary information
- enables interviewees to "speak in their own voice and express their own thoughts and feelings" (Berg, 2007: 96).
- Rich data source: Provides highly illuminating material
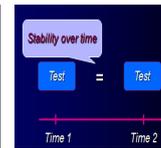
INTERVIEW DISADVANTAGES

- Although suitable for complex behaviour understanding can be time consuming and effortful process for both the parties
- Permissions
- Careful preparation
- Personal attributes of the interviewer
- Language dependent
- Interviewer bias/ Prompts

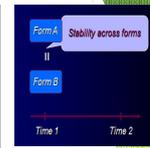## Issues in Qualitative Research: Reliability

▶ Quality of measurement.; Consistency or repeatability of measures
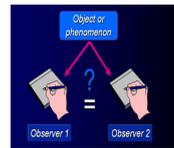
Inter Rater Reliability   Test – Retest Reliability   Parallel Forms Reliability

- Internal Consistency Reliability
- Split Half Reliability
- Examples

VALIDITY

- How well a test measures what it is supposed to measure
- Face Validity: Should referred to the least. Example: Scary Movie and Stress
- Construct Validity: Most popularly used. Extent to which a test measures a concept what it is meant to.
    - Convergent & Discriminative Validity
- Content Validity
- Concurrent validity
- Predictive Validity

NORMS

- Typical level of performance of a particular group
- Indicate individual's relative standing in a normative sample
- Raw scores are meaningless in behavioural sciences. Interpreted with reference to norms
- Types of Norms:
    - Development Norms: Normal Development Path of the Individual
- Mental Age Norms; Grade Equivalent Norms; Ordinal Scale Norms
    - Within Group Norms

SUMMARY

Qualitative data collection methods

Methods	Brief explanation
Observation	The researcher gets close enough to study subjects to observe (with/without participation) usually to understand whether people do what they say they do, and to access tacit knowledge of subjects
Interview	This involves asking questions, listening to and recording answers from an individual or group on a structured, semi-structured or unstructured format in an in-depth manner
Focus Group Discussion	Focused (guided by a set of questions) and interactive session with a group small enough for everyone to have chance to talk and large enough to provide diversity of opinions
Other methods	Rapid assessment procedure (RAP), Free listing, Pile sort, ranking, life history (biography)

GROUNDED THEORY

- Aim : Generate or Discover a Theory
- The discovery of theory from data systematically obtained from social research (Glaser & Strauss, 1967)
- Symbolic Interactionism
- Calman, L. (2006) Between you and me: patients' views of nurses' competence. At *1st Nurse Education Today International Conference: Developing collaborative practice in health and social care education 1st Nurse Education Today International Conference: Developing collaborative practice in health and social care education, Canada. 14 - 16 May 2006.*
- Mullai, A., & Paulsson, U. (2011). A grounded theory model for analysis of marine accidents. *Accident Analysis & Prevention, 43(4), 1590-1603*

STAGES IN QUALITATIVE DATA ANALYSIS

- Transcription
- Organizing your data
- Familiarization
- Coding
- Themes

DATA ANALYSIS

- Content/ Thematic Analysis
- Identifying Patterned meaning across datasets
- Theoretically Flexible. Can be used with variety of theories to understand different research questions
- Patterns are identified through : Data Familiarization, Coding, Searching for themes, Reviewing themes, Defining and naming themes and writing up
- Manual and Electronic

CASE STUDY 1

- Leximancer
  - Walker, G. H., Stanton, N. A., & Salmon, P. M. (2011). Cognitive compatibility of motorcyclists and car drivers. *Accident Analysis & Prevention*, *43*(3), 878-888.
  - Young, K. L., Salmon, P. M., & Cornelissen, M. (2013). Missing links? The effects of distraction on driver situation awareness. *Safety science*, *56*, 36-43.
- Nvivo
  - Omole, H., Walker, G., & Netto, G. (2014). Extracting cultural factors from helicopter accident reports using content analysis. *Advances in Human Aspects of Transportation: Part I*, 7, 3.

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