Social Science Research Methods

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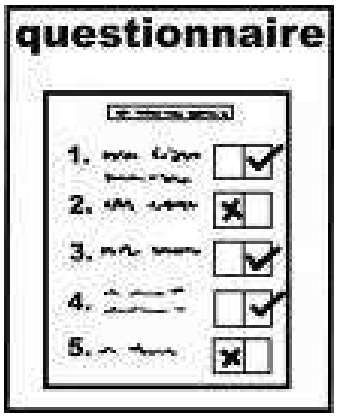
Introduction

Session Content

1. A note on the philosophical context to research methods
2. Methodology and methods
3. The distinction between qualitative and quantitative methods
4. The importance of research design and research questions
5. The research process
6. Types of research design
7. Aiding the research process



1. Philosophical context

- Methods are not neutral tools – they are linked to the way that social scientists view reality.
- There are **epistemological** questions (what is regarded as acceptable knowledge)
    - **Positivism** – affirms the importance of imitating the natural sciences (aim to *explain* human behaviour)
    - **Interpretivism** – people are not objects of natural sciences; social scientists should aim to grasp meaning of social action (aim to *understand* human behaviour)

Ontological considerations:

- ***Objectivism***: Sees social reality as being external to social actors/ social phenomena exist independently of social actors
- ***Constructivism***: Social reality is built up from the perceptions/ actions of social actors/ knowledge is constructed and produced

The philosophical context influences the research methodology . . .

2. Methodology and Methods

Methodology: Theoretical context or paradigm (e.g. positivist, feminist, interpretivist)

Methods: tools of data generation (e.g. semi-structured interviews, participatory appraisal, questionnaires, focus groups etc)

Methods in turn are influenced by choice of methodology

Positivist underlying philosophies tend to rely on **quantitative** data (numbers) to test hypotheses.

[A **hypothesis** is: A predicted answer to a research question that the research aims to test/ a statement designed to be tested]

Interpretivist approaches tend to utilise **qualitative** data (words) to address research questions.

3. Qualitative and Quantitative Research

	Quantitative	*Qualitative*
Validity	Objectivity	Intersubjective
Worldview	World exists	World constructed
Sampling	Representative Large	Guided Small
Emphasis	Patterns, laws, generalisations	Meanings, interpretation
Researcher	Passive, separate	Active, interactive
Theory	Tested	Generated
Methods	Inflexible, rigid static	Flexible and dynamic

4. Research Question(s)/ Aims

- Developing research questions is probably the most important part of a research project
- It has a strong bearing on the methods chosen
- It will take time to develop an original question; which utilises theory/concepts; and can be answered by the data that can be collected
- It needs to be informed by literature
- Avoid rushing into conducting fieldwork without being clear and confident about the research questions to be addressed (unless piloting!)

Research questions/ hypotheses help to:

- Organise a project
- Delimit a project
- Keep the researcher focused
- Provide a framework for writing up the project
- Point to the data that will be needed

Research Questions should be:

- **clear** – unambiguous, easily understood
- **specific** – sufficiently specific for it to be clear what constitutes the answer
- **answerable** – can see what data are needed to answer the question and how the data will be collected
- **interconnected** – questions are related in some way, forming a coherent whole
- **substantively relevant** – worthwhile, non-trivial, worthy of the research effort to be expended (from Robson p 59)

5. The Research Process/ Product

A simplified model of the research process:

- Identifying a gap in the literature/ issues and devising research questions
- Determining what data are necessary to address the research questions and designing the research to do so
- Collecting and analysing the data
- Using the data to address the questions

  In practice, research may be more of an iterative practice whereby findings shape questions etc – but research is generally written up as though it followed a clearly planned and sequential process!

Typical steps in quantitative research (adapted from Bryman 2001)

1. Theory
2. Hypothesis
3. Research design
4. Operationalization of concepts
5. Select research site(s)
6. Select research subjects/sample
7. Administer research instruments/collect data
8. Process data
9. Analyse data
10. Findings/conclusions
11. Write up findings/conclusions

6. Types of research design

- **Case study**: single communities/ families/ individuals/ events
- **Comparative design**: comparing one or more situation/ event/ community
- **Longitudinal**: changes over time
- **Cross sectional**: collection of data on more than one case study (usually many) at a single point in time to collect a body of data with two or more variables to detect patterns of association

7. Aiding the research process

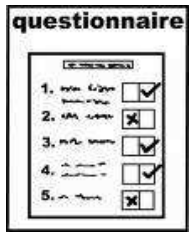
- I think it is invaluable to keep a record (research diary?) of
  - anything anybody said that you found interesting
  - unexpected and unusual findings
  - any similarities or differences that you notice compared to research that you have read
  - any links that you make with theory
  - preliminary interpretation of findings

Quantitative and Semi-Quantitative Research Methods

1. Key features of quantitative and semi-quantitative research methods
2. Sampling
3. Questionnaire design
    - Types of data
    - Open and closed questions
    - Writing questions
4. Analysis

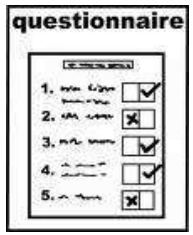
1. Key features of Quantitative Research

- Large quantity of data collected
- Emphasis on measurement of a variable (something that varies): frequency/ scale-continuum
- To generate numerical data
- Numbers may ‘emerge’ through frequencies/ indicators/ subsequent coding of answers
- May be seeking causation, correlation or to test difference



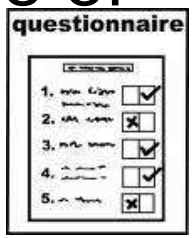
Semi-Quantitative Research

- Not all research neatly fits into the numerical/ non-numerical forms
- For instance in questionnaire surveys open questions may be asked to enable respondents to express things in their own words. These may be categorised afterwards and given a numerical form.
- Quantitative or qualitative? Depends to some extent on how its analysed



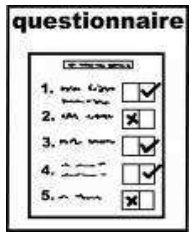
2. Sampling

- Is necessary in both qualitative and quantitative research because “ you cannot study everyone, everywhere, doing everything”.
- A *sample* (the actual group of research ‘subjects’) of the *population* (the total target group) needs to be taken.
- If we want to generalise about the whole population, we must ensure that the sample is *representative*. This is more often an objective of quantitative rather than qualitative research.



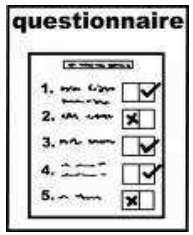
Sampling

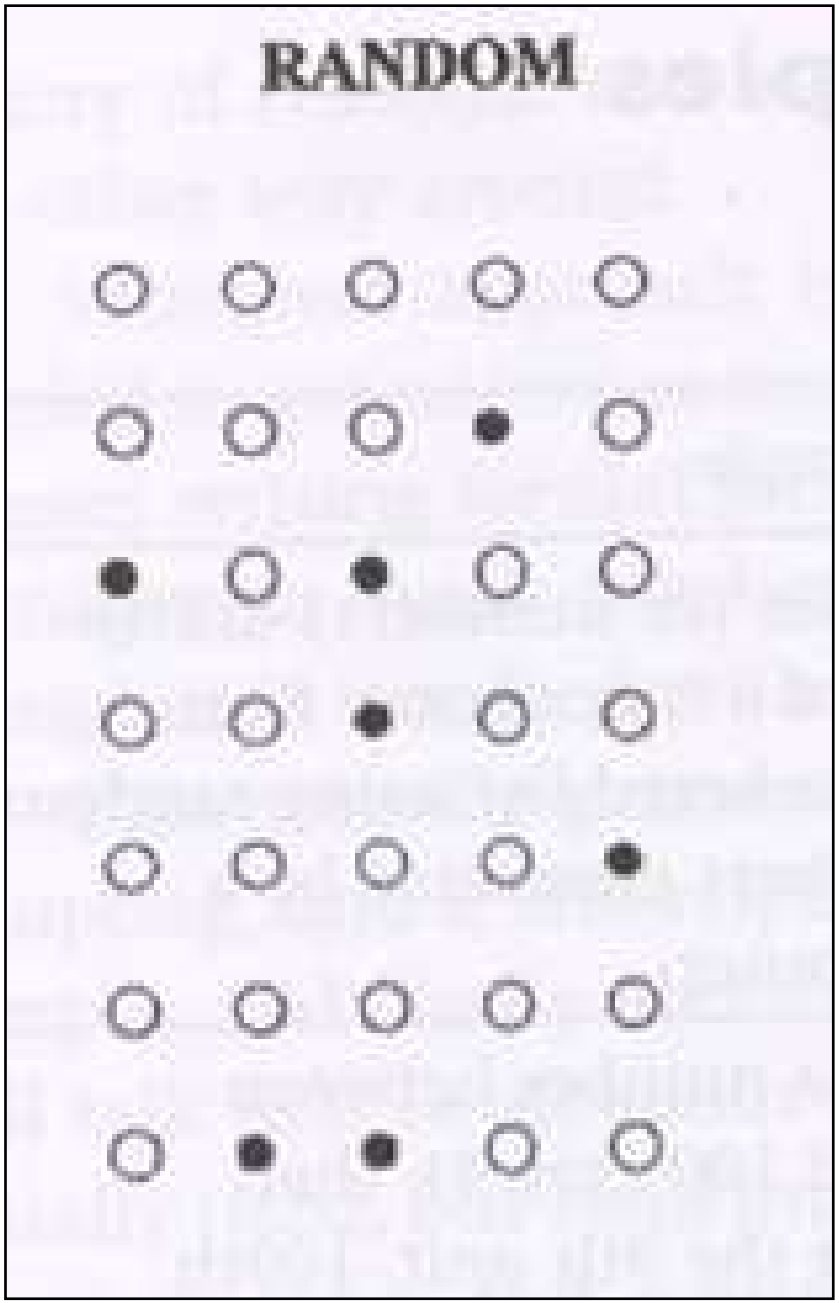
- A **probability sampling** method uses some form of random selection
- Simple Random Sampling
  - To select 100 people out of a population of 1000
  - The sampling fraction would be 100/1000 = 0.1 or 10%.
- Unbiased sample – can be generalized

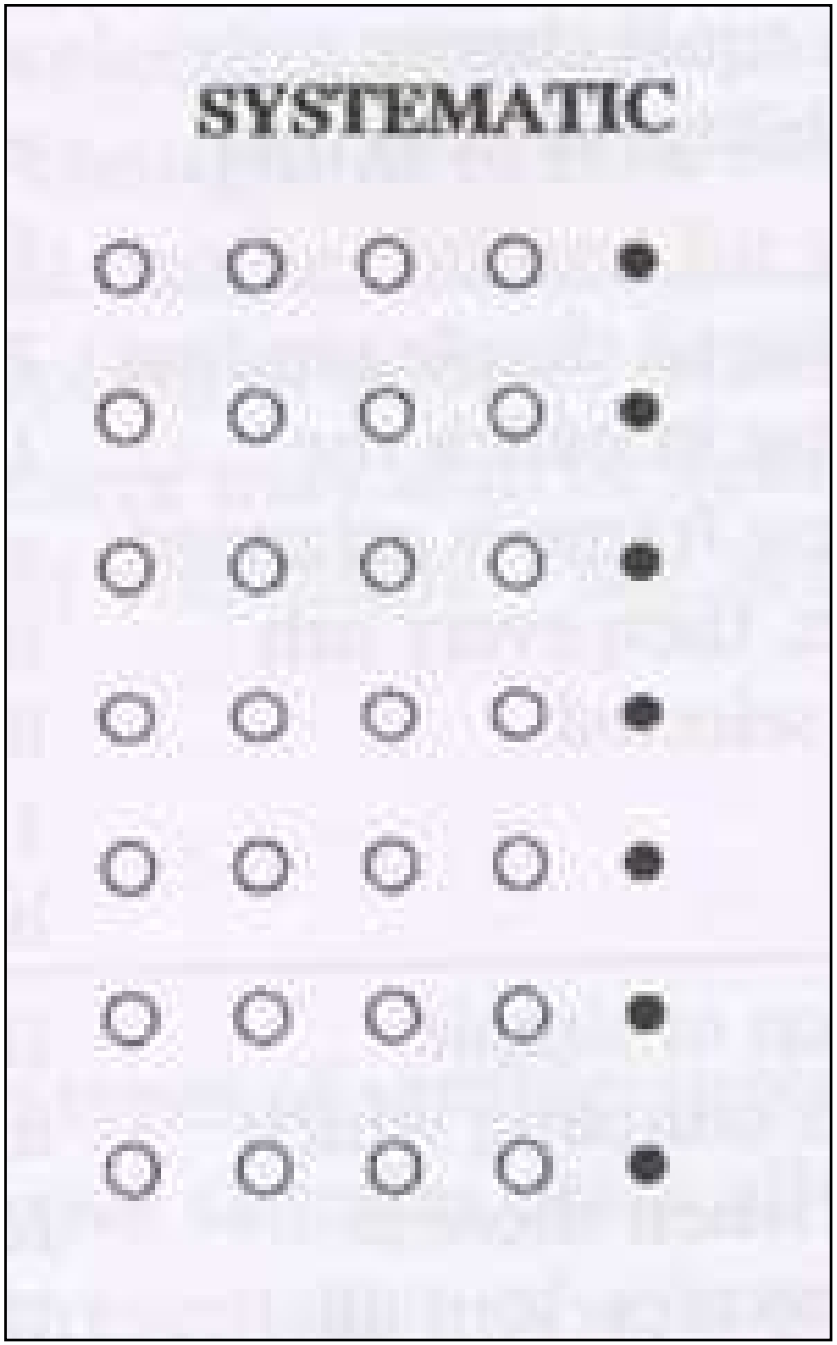


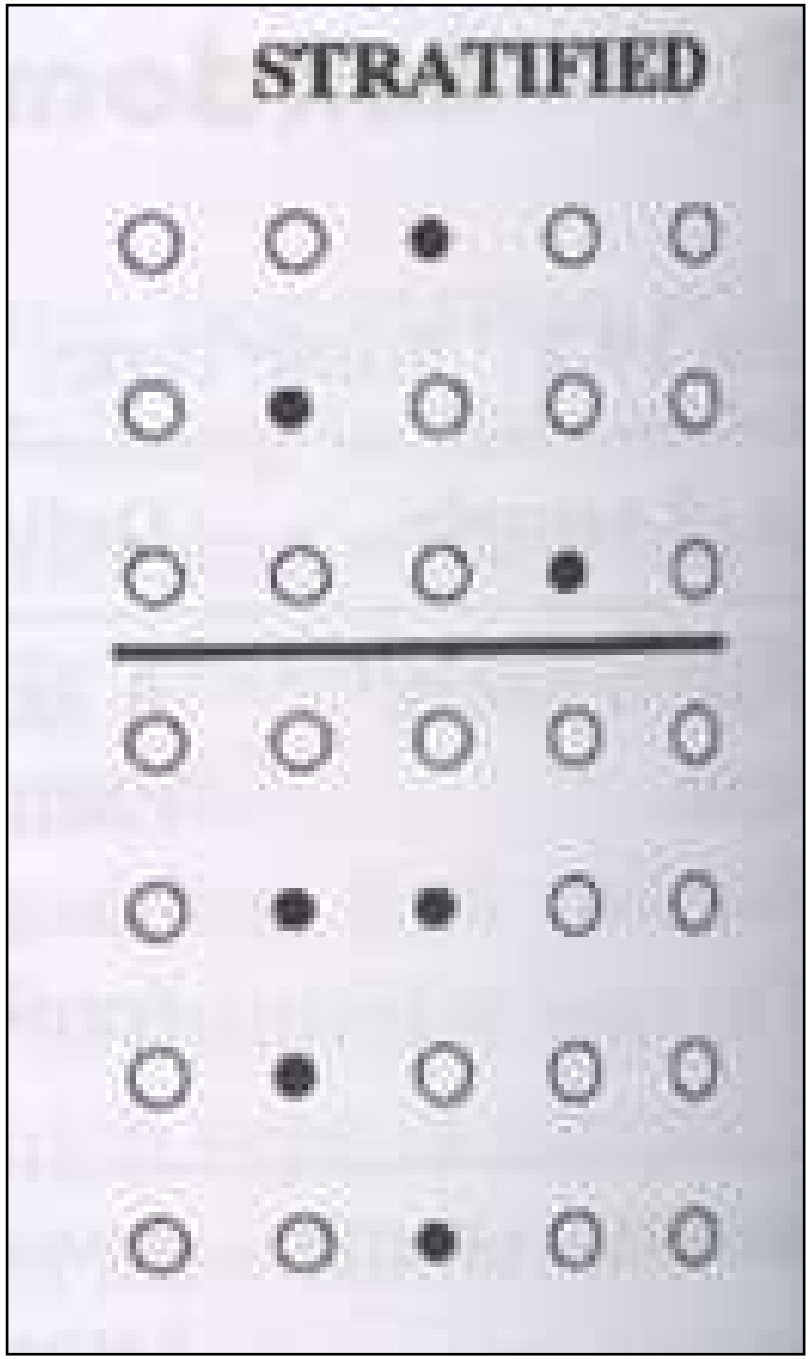
Sampling

- Types of sampling
  - **Random** – does not mean you choose ‘randomly’ – dice/ random number tables need to be used
  - **Systematic** – ‘nth’ person/ household/ name – calculate frequency based on population and required sample size
  - **Stratified** – specific characteristics/target groups are selected; combined with one of the above.



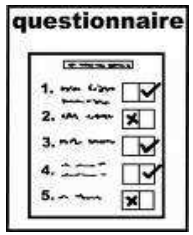

RANDOM

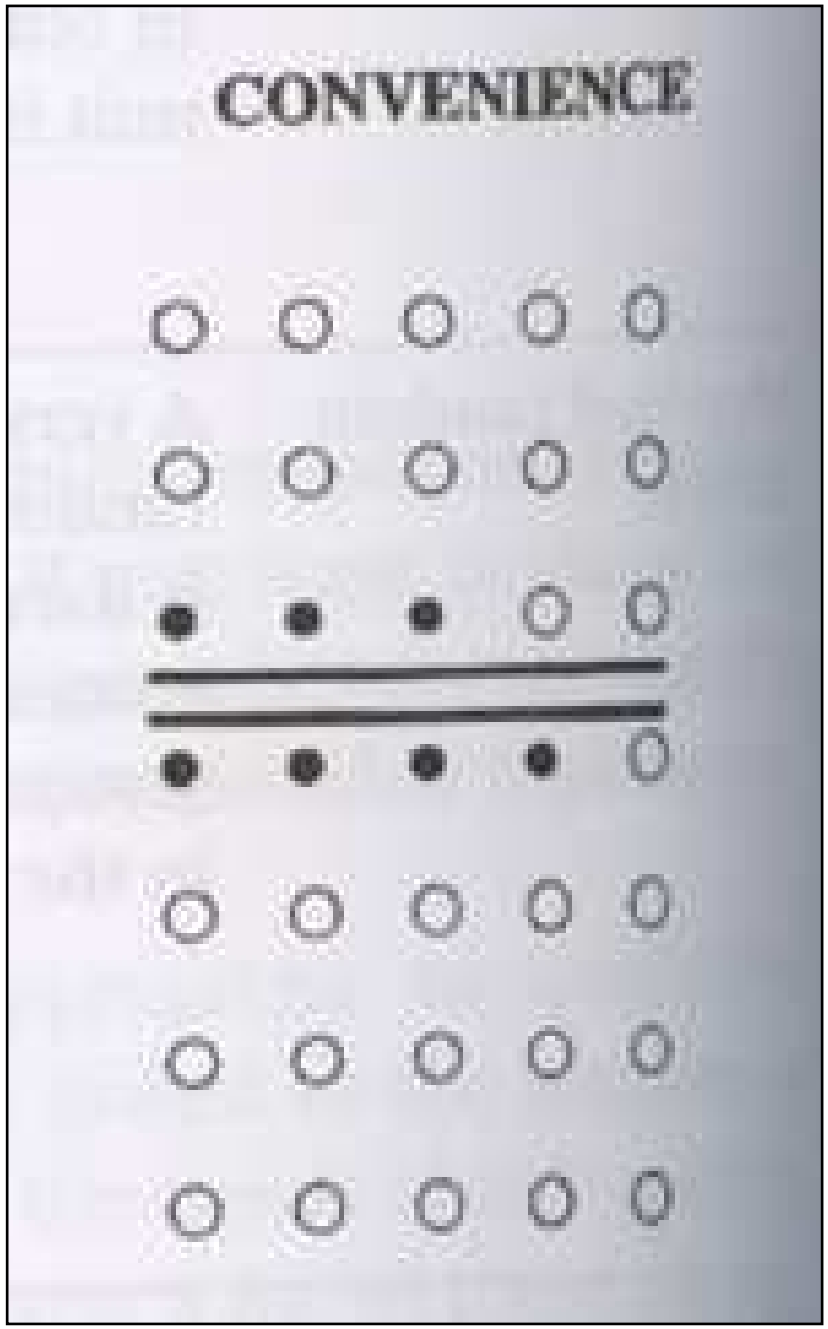

SYSTEMATIC

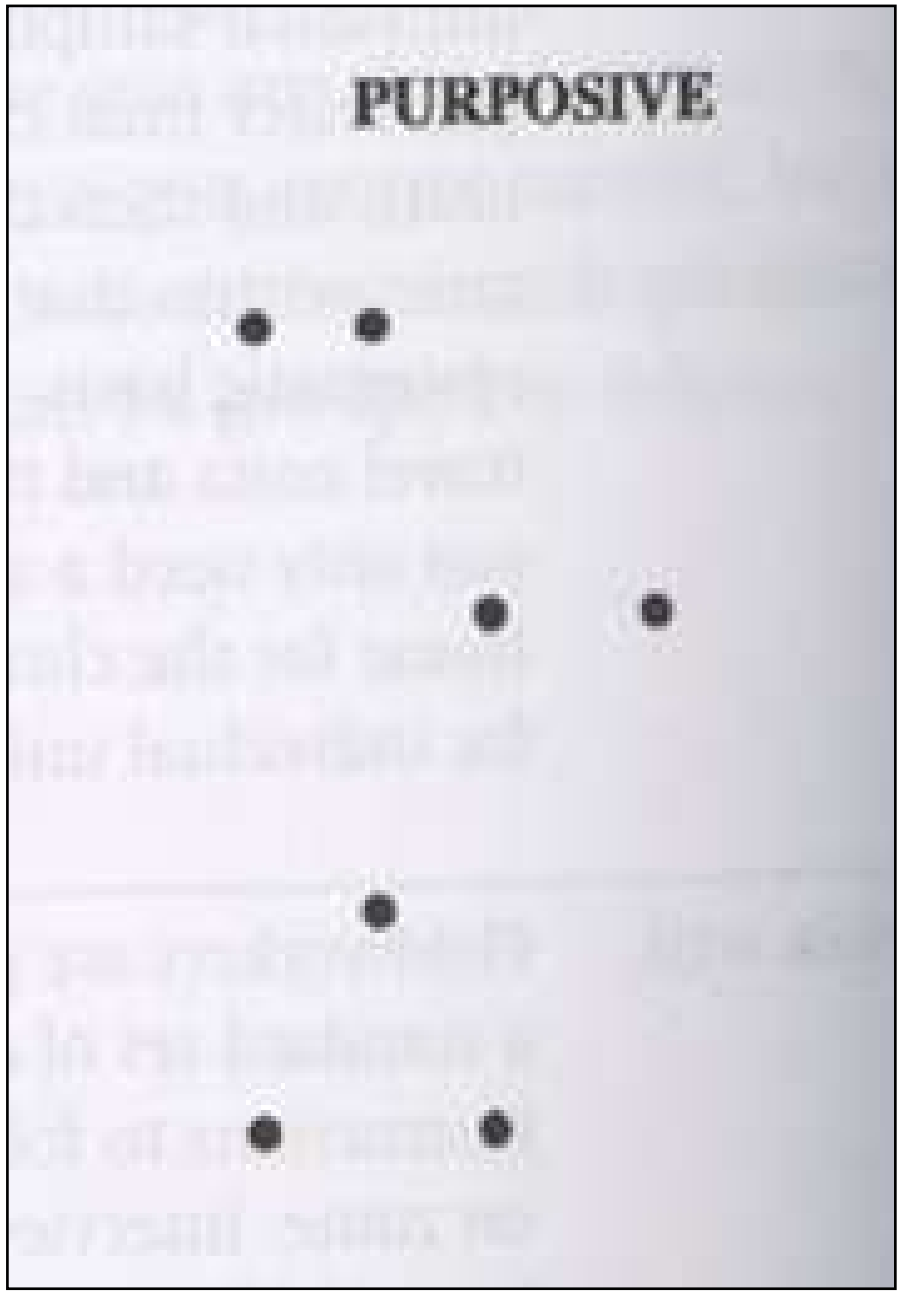

STRATIFIED

Sampling

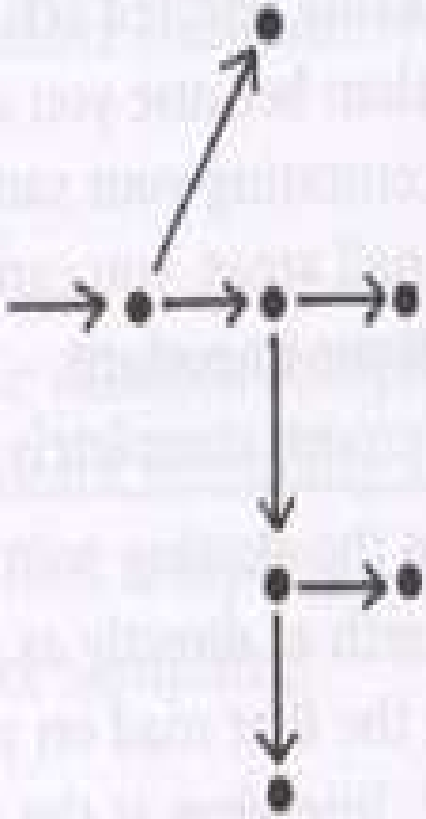
- **Non-probabilistic** samples
  - Not representative of the population therefore less valid/useful
  - Convenience sampling (e.g who is at home)
  - Judgement/purposive sampling (‘choosing a representative place/ persons’)
  - Snowball sampling (referrals from initial subjects to generate additional subjects)
- These sampling methods are not favoured in quantitative research




CONVENIENCE


PURPOSIVE

SNOWBALL

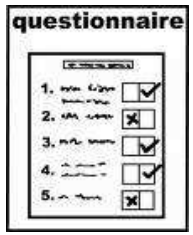


3. Survey design

- Questionnaires compared to unstructured interviews
  - Can gain a representative sample
  - Gather data from a large number of respondents
  - Amenable to statistical analysis
  - Less exploratory
  - As the researcher ‘limits’ the range of data, results may be less nuanced, rich and detailed

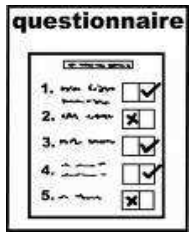
Administering the questionnaire

- Consider this first as it may affect the questions
  - self-administered – leave for respondent to complete – literacy may be an issue
  - researcher administered – researcher fills in
- Response rate varies considerably with the above



Before you start designing . . .

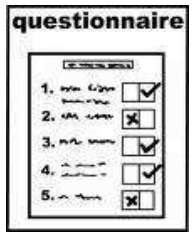
- What sort of data do you want to collect?
- Do you want to analyse your results statistically? If so, what tests will you use? You may be penalised for not conducting statistical analyses if your data lends itself to it.
- What do you need to know to address your research questions?



Types of Data

The type of data that you have influences the type of analysis that can be undertaken

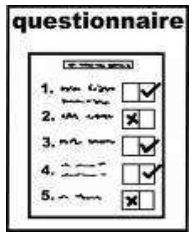
- *Nominal* (categorical, e.g. male/female – no metric properties or relationship between variables) – limited non-parametric statistical tests (e.g. chi square)
- *Ordinal* (ranked, e.g. SA-SD imprecise/ varying differences between values) – limited non-parametric tests (e.g. Mann-Whitney U, Pearson's correlation)



Types of Data

- *Interval* – (e.g. temperature) no meaningful zero value but equal measures between values – some parametric tests can be conducted
- *Continuous* (ratio, e.g. age) – amenable to powerful parametric statistical analyses (e.g. Spearman's, ANOVA, regression)

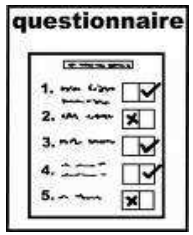
If you know what kind of data you have it is relatively easy to find out which statistical tests are appropriate



Types of Questions

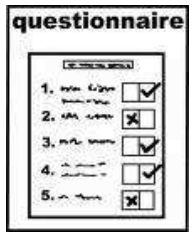
- **Open**: Respondent is free to answer however they choose with unprompted answer (short answers *may* be subsequently coded)

- **Closed**: Predetermined (and pre-coded) answers such as multiple choice



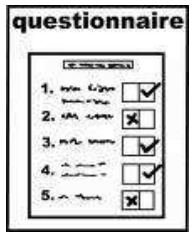
Open Questions

- Advantages
  - freedom of expression
  - Not limited by researcher's ideas/ limited range of responses
  - More informative/ explanations
- Disadvantages
  - More challenging to analyse/ code
  - Coding subjective
  - Quotations = evidence



Open Questions

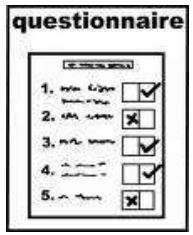
- Examples:
  - Why did you move to this area. . .?
  - What is the first thing that comes to mind when you hear the word:…?
  - What words best describe your reaction to --?
  - N.B. These questions generate qualitative data. They may be used as quotations to back up an argument/ or coded, analysed for frequency and represented numerically



Closed Questions

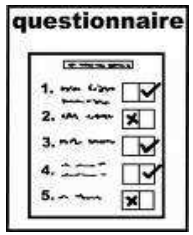
- Advantages
  - Quick to answer
  - Easy to analyse (more amenable to statistical analysis)
  - Literacy of respondent less problematic
- Disadvantages
  - Response options are limited (range)
  - Qualification is not accommodated

  (“it depends . . .”)



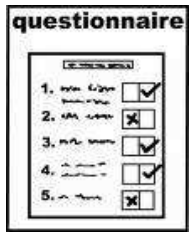
Closed Questions

- *Dichtomous*: Yes/No
- *Multiple*: Offer choices
- *Likert Scale*: statements to which the respondent shows the amount of agreement/disagreement
- *Semantic differential scale*: scale between two bipolar words
- *Ranking*



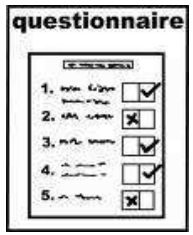
Writing Questions

- Be clear, succinct and unambiguous
- Anticipate responses and the kind of data questions will yield – will it be useful?
- Be specific and consider when it would be useful to have quantified rather than subjective answers
- Avoid jargon, technical terms and colloquialisms, double negatives, emotionally charged language



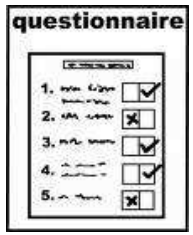
Writing Questions

- Balance positively and negatively worded questions
- Consider all possible choices for multiple choice question
- Include don’t know; other; not applicable as possible answers
- Do not assume anything!



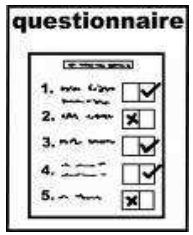
Problem Questions

- Hypothetical questions – can be unreliable
- Leading/biased questions – unreliable
- Questions relying on memory – unreliable
- Sensitive questions – try to minimise/avoid these or at least leave them until the end (giving ranges from which people can choose may help)



Problem Questions

- Multi-component questions: Only ask one thing at a time/ for a response on only one dimension
- Non-mutually exclusive responses – ensure that it is not possible to answer one or more category (unless specified as required)



More tips

- Have a welcoming introduction
- After you have designed your questionnaire ask yourself how each of your questions will be used and helps address your research question
- ‘Fatigue bias’- how long does it take?
- Consider layout (options on right hand edge of page is found the be the most effective layout)
- Is the questionnaire logically structured/ flowing? (remember earlier questions may bias later answers)
- Consider anonymity and confidentiality issues
- Run a pilot – any mistakes?
- Have you left anything out?

Exercise

Read the questionnaire provided, designed to ascertain gender differences in environmental attitudes in the north east.

- Identify the different types of closed questions
- What are the problems with this questionnaire – how could you improve it?
- What statistical analysis could you employ on the data?
- How would you administer it/ sample?
- Does it address the research question?

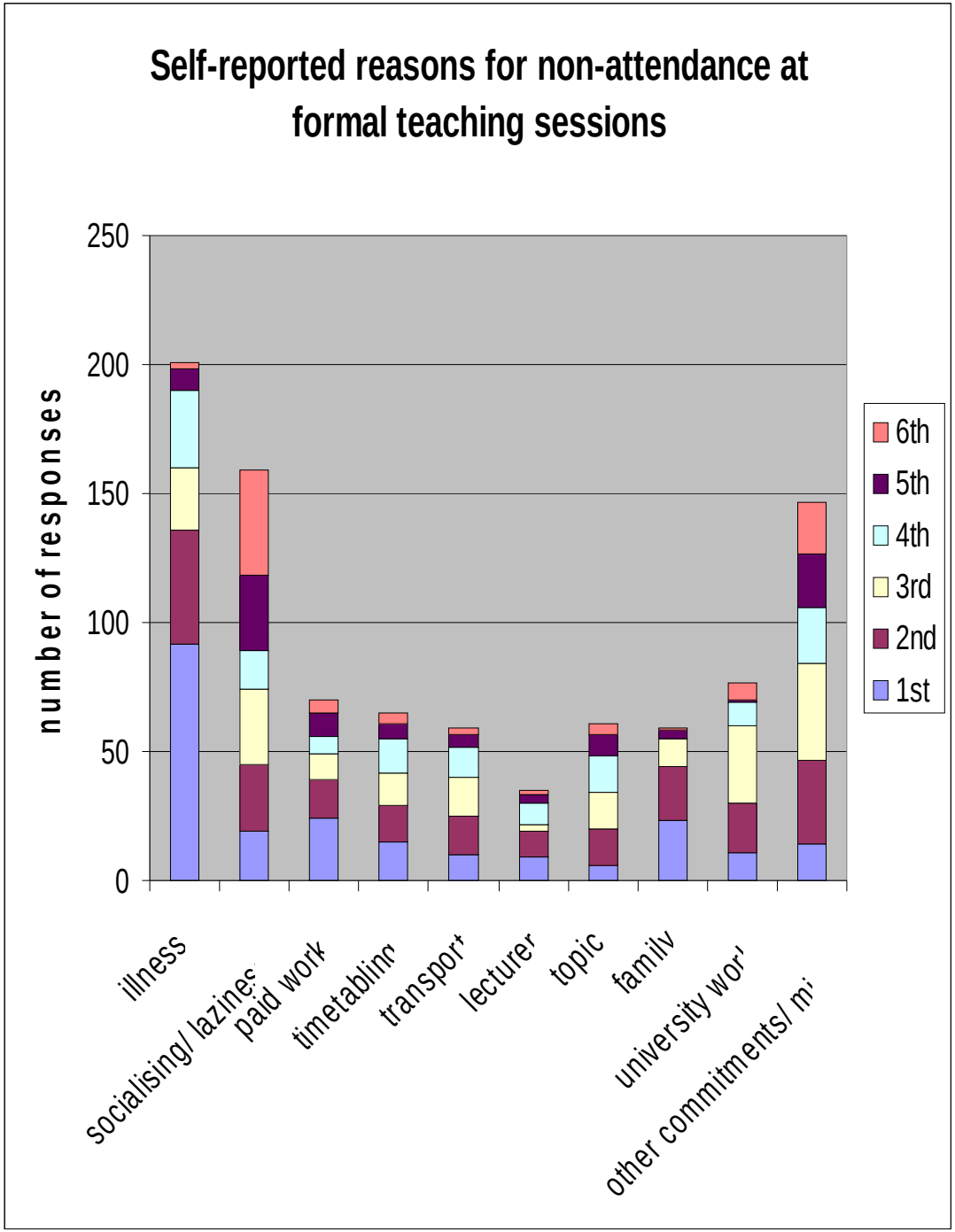
4. Quantitative analysis

- Different data lends itself to different types of analysis and presentation
- **Descriptive statistics:** present summary data and can be most effectively represented graphically
- **Analytical statistics**: conclusions should avoid being drawn from descriptive statistics where **statistical analysis** is possible. Certain information should be presented . . .
  - An explanation of what the results show, including the level of significance and the ‘value’ from the test result (e.g. ‘t’; chi square etc.).

Example of descriptive statistics showing attitudinal differences at 3 different sites

Question (phrased as positive statement)	Birandranagar (% agreeing)	Banderi (% agreeing)	Baghmara (% agreeing)
Reduction of national park impacts			
The benefits of living near the NP are greater than the cost	48	57	77
The CF has reduced crop damage from wild animals	6	93	27
Resource availability			
The CF has increased the availability of important resources	2	28	76
Interest representation			
The priority for the community forest should be conservation with ecotourism\ local fuelwood provision*	32\68	27\73	47\51
The committee represents the interests of the whole village	66	64	86
Benefit distribution			
The benefits of the CF are distributed fairly	46	56	64
I benefited directly from the CF	2	1	54
Control over resources			
The CF belongs to the whole community	84	88	92

Example of graphical representation of descriptive statistics



Example of tabulated statistical test results

Mann-Whitney U tests showing between which types of assessment significant differences exist between session attendance

Score (maximum score of 5)	Unseen Exam 4.6	Seen Exam 4.4	Essay or report 4.5	Presentation 4.4
Mann-Whitney U significance levels				
Unseen Exam	-	-	-	-
Seen Exam	S (p=0.007)	-	-	-
Essay/Report	S (p=0.001)	NS (p=0.724)	-	-
Presentation	S (p=0.002)	NS (p=0.684)	NS (p=0.956)	-

Incorporating statistical test results into text

Examples:

- “It was found that while females report on average better attendance than males (at 10.2 sessions compared with 10.0), a t-test revealed that the difference was not significant (t=-24.77; p=0.159).”

- “Among those who know their current degree classification, there is a significant positive correlation between number of sessions attended and degree classification (Pearson correlation coefficient 0.411, p=0.000).”

Example 2: Chi square results showing in which community forests responses were significantly different by gender, caste and wealth

	Caste	Wealth	Gender
Costs vs Benefits	Bg		
Fairness of benefit distribution	Bn	Bg	
Representativeness of committee	Bn; Br	Bn	Bn
Availability of resources	Bn		
Personal benefits		Bg	

Key:
Bg = Baghmara; Bn = Banderi; Br = Birandranagar

NB Significance levels should be presented if they are not included elsewhere

Qualitative Research Methods

1. Observation
2. Analysis of text
3. Interviewing
    - Types of interviewing – group/ structured/ unstructured
    - Preparation
    - Recording
4. A note on ethics
5. Analysis of qualitative data

1. Observation

Participant observation: prolonged immersion of the researcher in the social setting that they seek to understand – infer meanings from observations (anthropological approach)

Structured observation: recorded observation of behaviour (there may be a gap between actual and stated behaviour thus structured observation may be more reliable) – use observation schedule

Unstructured observation: detailed record of behaviour as a narrative account

2. Analysis of text

Content analysis: Quantity of space give to certain items (categorisation may be ambiguous and interpretation limited)

Discourse analysis: How are people represented? How is the story constructed? What images are excluded/ included? What impression is the text giving?

3. Types of Interviews: Focus groups

- Facilitator leads group discussion/ interview
- Usually small, unrepresentative sample
- Good for gauging range of responses or follow up structured research
- Can provide in depth and comprehensive information
- The participants may learn and be stimulated by each other – can be more fruitful than just one interviewer/respondent
- Consider group dynamics – who is silent and why?
- Can be difficult to analyse – who said what?

One-to-One Interviews

- Different types: e.g.
  - **Structured** (as in the case of a questionnaire where the questions are decided upon before the interview and do not change in the course of the interview - standardised)
  - **Semi-structured** (some flexibility to explore some areas of interest in more depth but a defined list of questions to address)
  - **Unstructured** (may be themes/ list of points to explore – very flexible – new ones may be added, allows informant freedom to influence the course of the interview)

- Different purpose/ people
  - Key informant interviews (e.g. teachers, priests) may be useful to glean preliminary/ background information
  - Survey/sample population (in-depth interviews – feelings, meanings, attitudes etc)
  - Oral histories (may be useful for uncovering marginalised voices – history dominated by elites)
  - People in positions of power – government officials, NGO/IO directors – for a specific purpose such as to understand the evolution of a particular policy

A closer look at un/ semi-structured interviews

- Un/ semi- structured interviews are the main data collection tools of qualitative research.
- They can be very useful for: accessing people's perceptions, meanings, definitions of situations, constructions of reality
- Knowledge is situated and contextual – focus on understanding lives and meanings
- Emphasis on depth, detail, nuance, complexity, richness – understanding not measuring

- It is one of the most powerful tools we have of understanding others

- Can be used the as only method, but could be used to supplement more structured research
- Time consuming – transcribing a 1 hour interview can take a whole day
- Probing, iterative – requires more ‘thinking on the spot’
- Informal – ‘conversations with a purpose’
- Thematic, topic-centred, fluid and flexible
- Not representative
- Aims to avoid pre-conceived ideas
- Some interviewees will be more vocal/ informative than others - skill/training may be needed

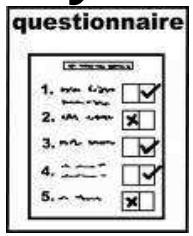
Preparation

Can be very important. Consider:

- Using contacts to make initial contact
- Making contact by telephone/ letter, email may be informal and may not elicit a good response
- Gaining permission if necessary
- Arranging suitable place for the interview
- How the interviewer should present themselves?
- Proof of identity, letter of introduction?
- Sort out issues of anonymity, informed consent etc before the interview

Preparation and style

- Be prepared for a respondent not being very talkative – extra questions?
- What if someone is very talkative – do you quiet them or not ask some of the less important questions – maybe what they want to say may turn out to be the most important?
- Think of initial questions to relax the interviewee, give people time to think
- Establish rapport, there to learn
- Notice their body language – are they uncomfortable with certain questions, are they getting bored?



Recording

Options:

Video – could be very intimidating – get a fuller picture

Voice recorders - good but get permission - should take notes anyway - may fail

Writing - won't get much verbatim - can put people off to see you scribbling down what they say

When to use interviews for research

- Does the research require such detailed information?
- Is it reasonable to rely on information gathered from a small number of informants? (link to sampling and issues of generalizability)
- For investigating emotions, experiences, feelings, sensitive issues, key informants with privileged information
- Can you get access to the people you expect to be your informants?
- What about viability in terms of costs of time and travel?
- How does it fit within the overall design – theory and method?

A note on ethics

- Ethical issues arise at many stages in the research process. For example:
  - Regarding whether and how to do research but also about not doing it
  - What to call people who are interviewed (subjects, respondents, informants interviewees, participants)
  - Who owns the research material? Interviews/transcripts?

- Will participants gain from the research or do they believe they might?
- Should a researcher offer any inducements to participants to take part?
- What can a research ‘give back’ to the community?
- Who will be given copies of the outputs?
- Is it right to deceive the subjects of research?
- What if the ultimate research findings will lead to improvement in the situation of a significant number of people or particular social group while causing very little damage to those being researched…

Assessing the ethical basis of the research

Considerations

- who decides what research is to be carried out
- who funds it
- how this might affect the research design and results
- how might the research have been different with a different funder, researcher or method
- informed consent
- overt/covert research
- what might be the possible negative impacts of research
- whether the end justifies the means
- when not doing the research may be more injurious than doing the research

Problematic ‘subjects’

- Children
- Elderly/infirm
- Those with mental health problems
- Those with limited understanding of the research and its implications
- The vulnerable
- Disaster victims
- Listening in to other people’s conversation…

Principles: A. Do no harm

- Research subjects should not be harmed by it
- Re-telling may cause distress – how will you deal with it?
- Re-telling may be cathartic

B. Informed consent

- Prospective research subjects must be given sufficient information on which to base their decision to participate or not
- What is sufficient information?
- Problems of informed consent in hierarchical situations
- **Confidentiality** - where the research subject is promised that they will not be identified or presented in identifiable form
- **Anonymity** - where even the researcher will not be able to tell which responses came from which subject (quantitative research)
- The respondent must have the ability to withdraw from the research at any time. This must be made clear to them

4. Qualitative analysis

- Transcribe interviews. If possible transcribe everything (including all the ‘umm’s and ‘er’s etc. This takes a long time – as much as 8 hours for a one-hour interview (varies according to sound quality and clarity of interviewee’s expression).
- Print out the transcript and go though marking up what seem to be important themes, categories, concepts. This is what is referred to as *open coding* in the *grounded theory* approach.

Categories/themes may be:

- Patterns that emerge
- Based on policy and/or theoretical issues
- From making inferences from the ‘data’
- From initial or subsequently emerging research questions
- Interesting or surprising points, inconsistencies, contradictions
- Through your imagination, intuition or previous knowledge
- To do this implies familiarity with the material. Not just reading and re-reading, coding and recoding but it may be useful to listen again also.
- Organise write-up/ analysis into themes (no single right way to do it!)

Participatory Rural Appraisal

Research Techniques

Structure

- Types of research in development
- A methods spectrum
- PRA: The principles of a new approach
- Tools and Techniques
- Limitations of PRA
- Exercise
- Video: PRA, gender and natural resources

Types of research

- Descriptive – background/ preliminary
- Experimental – on-farm trials
- Comparative – men/women; before/ after
- Exploratory – deeper understanding
- Problem-oriented – developing solutions
- Participatory – local involvement in design/ evaluation
- Empowering – e.g. directed towards women/ the poor

A methods spectrum

- Formal: e.g objective social science, structured questionnaires, random sampling, verifiable, statistically analysed, researcher led
- Informal: e.g. participant observation, researcher involved in everyday tasks, try to interpret meanings, researcher interpreted

Problems

- Formal: researcher led agenda, time consuming, expensive, can the researcher be objective?
- Informal: e.g. researcher interpreted (subjective), time consuming
- Both: interviewees are passive, may feel intimidated by presence of researcher/ pen and paper, researchers are ‘experts’, quantification is often difficult

Participatory Rural Appraisal

- Rapid Rural Appraisal developed in the early 1980s by practitioners working within time and budget constraints
- Name changed in the 1990s to reflect emphasis on local participation rather than speed
- Not always rural (PA), FPR, PLA
- Action Research may use PA to empower people

What is distinctive about PRA?

- Researchers aim to learn from local people who are experts (value of IK)/ shared learning/ ‘experts’ as facilitators – live in area and participate

- Communication takes forms that local people may feel more comfortable with (e.g. local materials, sticks and stones to represent quantities, drawings)

- Seeks diversity not ‘averages’

- Research process is iterative, follows relevant threads, local agendas rather than researchers' priorities
- 'Optimal ignorance' – 'enough' information
- Process of group analysis leads to change (empowering)
- Efforts to be comprehensive/ objective are abandoned but validity is gained by triangulation (multiple tools, different interest groups)

PRA Tools and Techniques

- Key informant interviewing, focus group discussions, semi-structured interviews
  - Key probes
  - Structured exercises (e.g. SWOT)

- Matrix Ranking:
  - Helps reveal preferences and priorities
  - Table of criteria against items - scored

Table 3.5: **Group evaluation: Farmers' characterization of preferred type of bean variety (priority criteria *in italics*)**

	Criteria given by men's working group
1	*High yielding*
2	Long pod with 6–7 grains (related to high yield)
3	Tall erect plant (not sprawling) appropriate for planting higher density
4	Adaptability to different soil fertility conditions, or fertilization
5	*Large grain size*
6	Deep red grain colour ('radical' type)
7	*Shorter season* (not longer than 85 days)
8	*Disease resistant* (1 or 2 sprayings adequate, not more)
9	Resistant to storage pests
10	Pod which does not split open in the field causing grain loss at harvest
11	Flavour
12	Soft-skinned when cooked
13	*Stability of yield* over at least 3 production seasons

	Criteria given by women's working group
1	Quick cooking
2	*Grain swells* quickly, increasing total portion size when cooked
3	*Flavour* (sweet, not bitter)
4	Soft skin
5	*Resistant to storage pests*
6	Pod which is not difficult to open for threshing
7	*High yielding*
8	*Short season*

Mbusyani option assessment chart

BEST BET OR INNOVATION	PRODUCTIVITY	STABILITY	SUSTAINABILITY	EQUITIBILITY	TIME TO BENEFIT	COST	TECHNICAL AND SOCIAL FEASIBILITY	PRIORITY
BOREHOLES	?	0	-	0	3	3	3	6
ROOF CATCHMENT	+	+	++	+	1	1	2	3
NATURAL SPRINGS	+	+	+	++	1	2	2	
REHABILITATE DAMS	++	+	++	++	1	2	2	
SHALLOW WELLS	+	+	++	0	2	1	2	
NEW SURFACE DAMS	++	+	++	++	1	2	2	

KEY

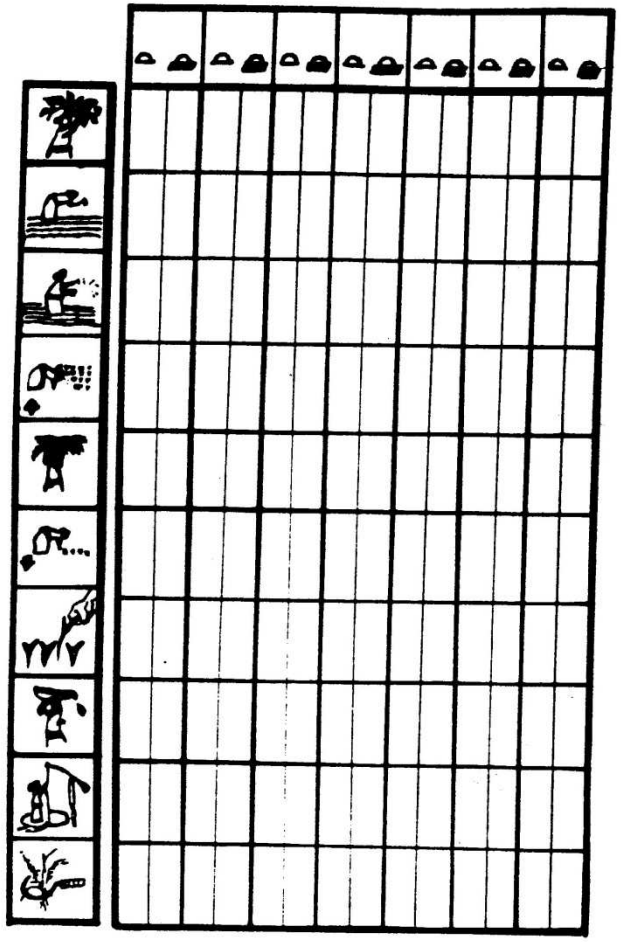
? Unknown
- Negative Impact
0 No impact
+ Positive impact
++ Very positive impact

	Time	Cost	Feasibility
3	Long	High	Low
2	Medium	Medium	Medium
1	Short	Low	High

- Seasonality/ calendars
  - Record/ recall use of time, gender divisions of labour
  - Farming system, seasonal constraints, food and labour availability

- Mapping
  - Distribution of resources, show relative importance of local resources
  - Transects, vegetation, soils, land use

The agricultural operations chart



Part of a pictogram method for women to record their own time use.

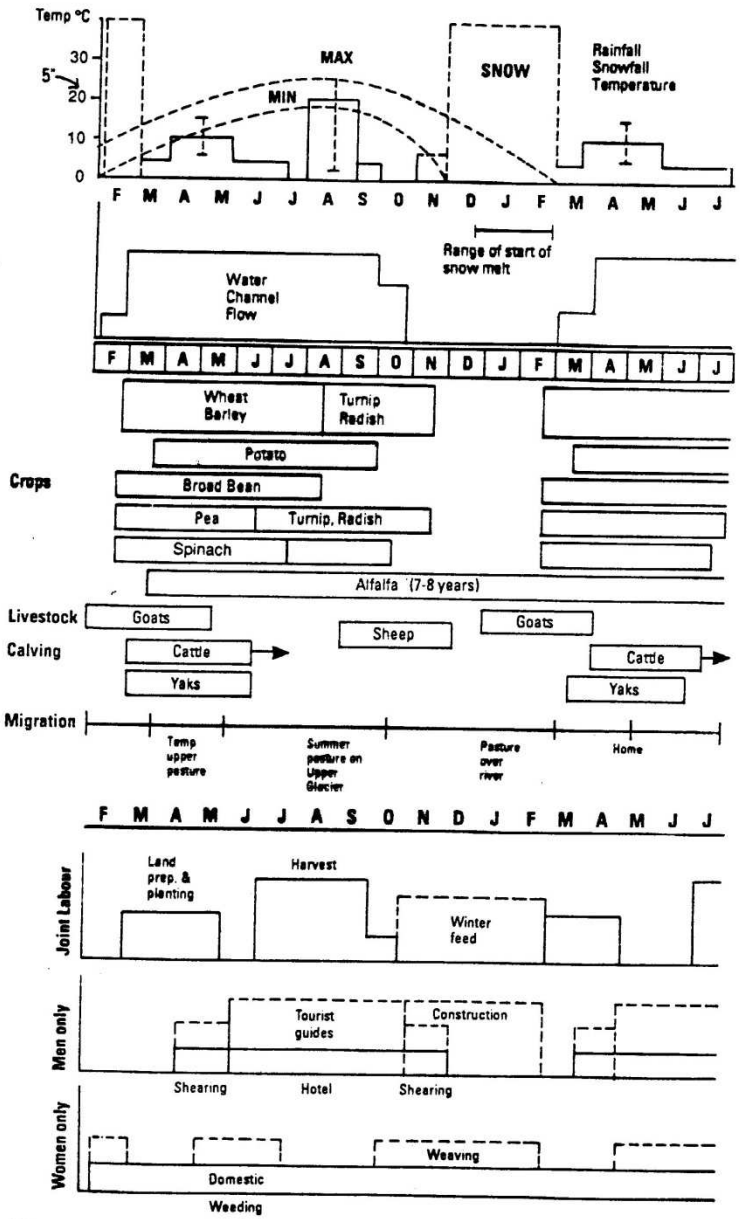


Figure 2.2: *Seasonal calendar for a village in northern Pakistan*

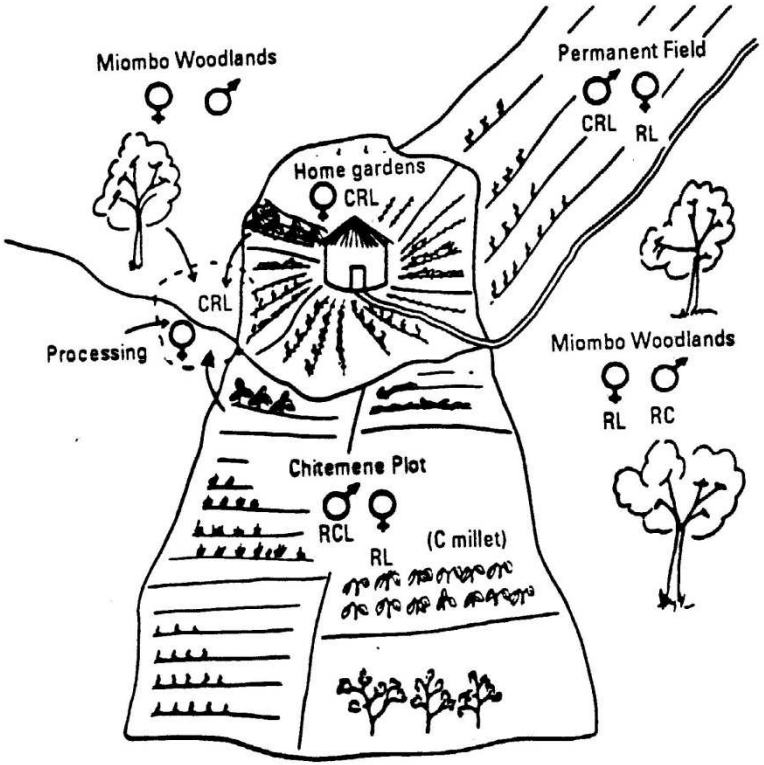
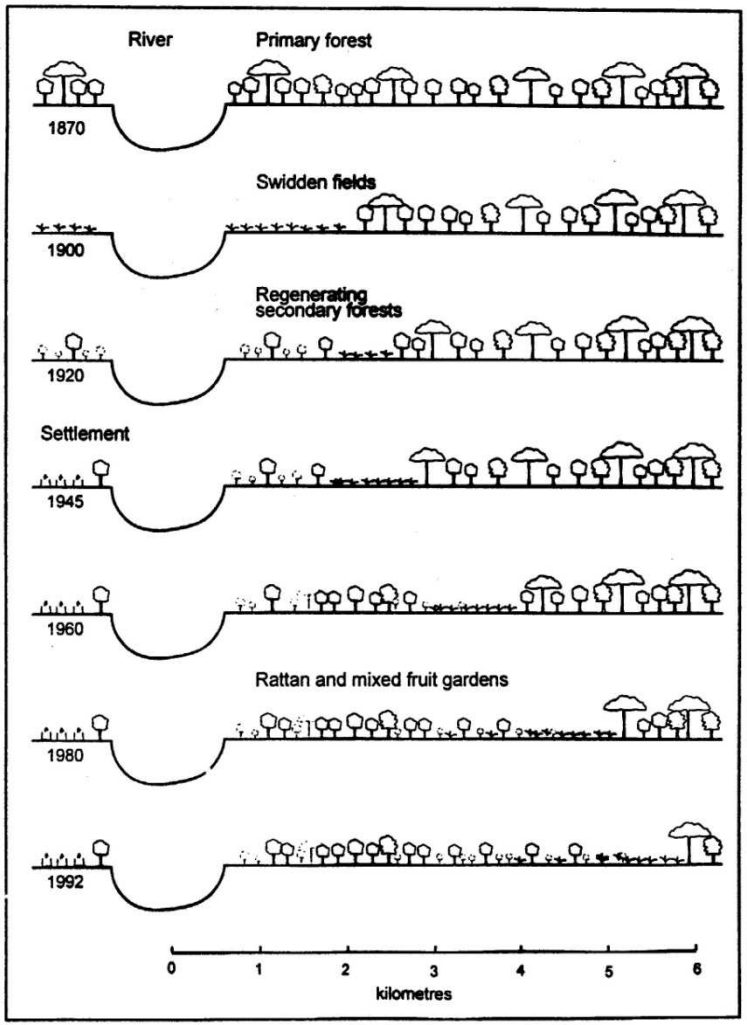


Figure 1.3: *The* chitemene *system in north-east Zambia, including new practices observed near Misamfu. Women control the millet crop (one of several in the intercrop rotation) on the* chitemene *plot. Other aspects of gender roles are denoted by:*

C 'control';
R 'responsibility';
L 'labour'.

(after Rocheleau 1987a)

HISTORICAL TRANSECT: INDONESIA



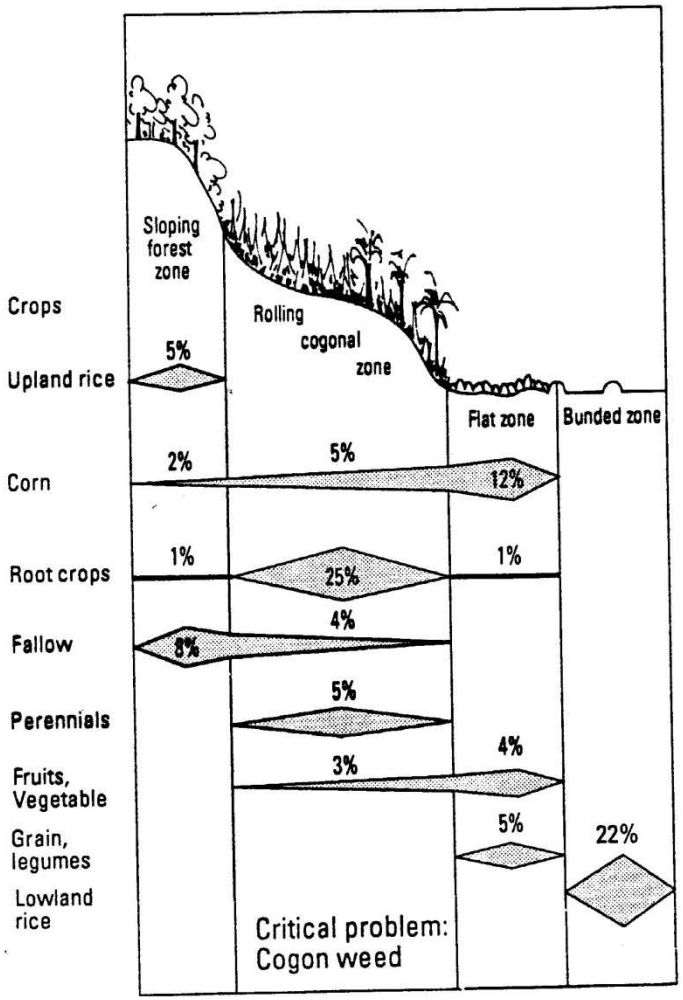
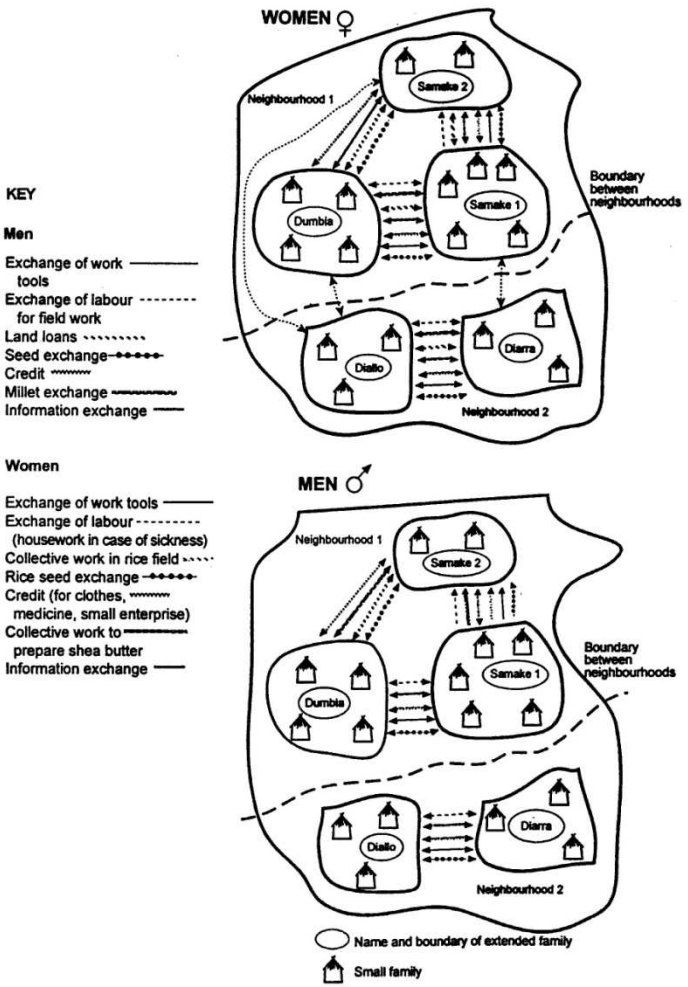


Figure 2.5: *Transect of land in the area around Gandara, Philippines*

Social Network Mapping



KEY

Men

- Exchange of work tools
- Exchange of labour for field work
- Land loans
- Seed exchange
- Credit
- Millet exchange
- Information exchange

Women

- Exchange of work tools
- Exchange of labour (housework in case of sickness)
- Collective work in rice field
- Rice seed exchange
- Credit (for clothes, medicine, small enterprise)
- Collective work to prepare shea butter
- Information exchange

- Venn diagrams
  - Importance and relationships of various institutions

- Wealth ranking
  - See additional handouts

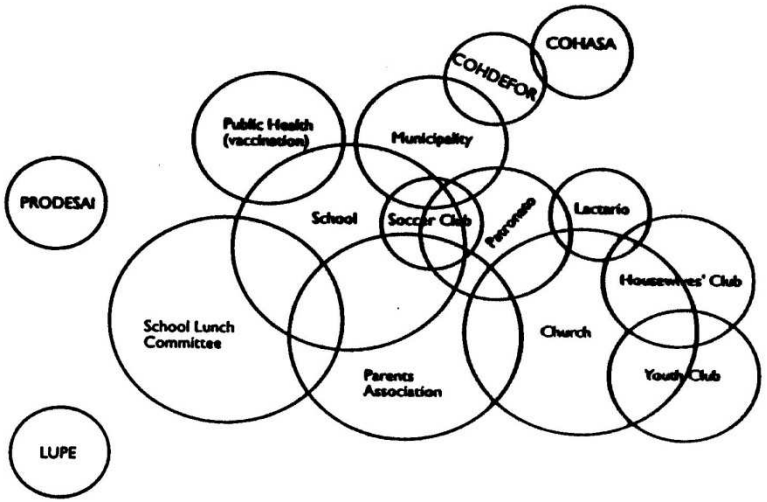
APPLICATIONS

Project planning; implementation; evaluation

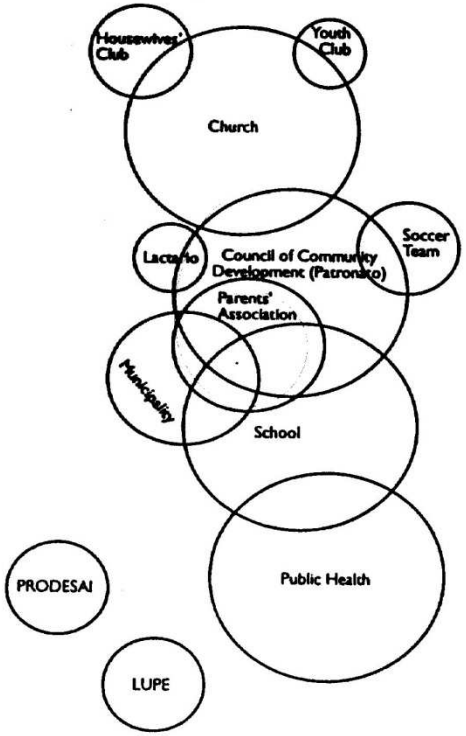
Academic research

Gendered Institutional Diagrams from Choluteca, Honduras[46]

Women's Perceptions



Men's Perceptions



Source: ECOGEN Field Data, 1992

Focus groups of men and women, through a process of dialogue and consensus-building, ranked each organization's importance (represented by the size of the circle). Using paper circles each group constructed diagrams indicating the relationships between and among different community institutions. Men and women ranked the significance of community groups for local welfare very differently. This exercise provided extensive information about men's and women's relationships with and attitudes about local and regional organizations.

Limitations as research tools

- Another extractive research tool?
- Does not conform to standards of social scientific research (validity, reliability, replicability)
- Only applicable to a (narrow) range of research questions?
- Participation for whom?
- Expectations raised?
- Can still be practiced badly

Exercise

In groups design a PRA methodology to explore one of the following:

- The relative importance of various development organisations to a village and why they are important
- The changing availability of rural energy sources and effects of changes
- The impact of a sanitation project on women's health, use of time and wider gender relations
- The impact of an integrated pest control project on agricultural production and decision-making
- The value and use of social networks in disaster preparedness and response

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