Workshop: How to Perform and Interpret Interviews

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OrganoRice: from soil and field to biocontrol, rice quality, markets, farmers' and community health

OrganoRice

Workshop Agenda

1. Overview of quantitative approach and method
2. Overview of qualitative approach and method with examples from the OrganoRice project and with practical group exercises

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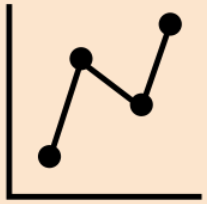


Part 1: *Quantitative questions, quantitative methods, quantitative answers*

Objective: Understand when and how to use quantitative interviews, focusing on sampling, questionnaire design and basic interpretation

1. Planning Phase

Define your research question, e.g. “What is the share of farmers willing to shift to organic agriculture in the MKD?”

The question is quantitative, so the method must be a quantitative one.

=> This implies that the interviewees must be a representative sample of the total farming population, regarding, age, education, gender, farm size, etc.

=> As the MKD is the area addressed by the question, to avoid bias the spatial distribution of interviewees should be homogenous.

=> to reach the standard confidence level of 95% for interviews, the representative sample should comprise about 2,000 interviewees, who fully respond to the questionnaire. To reach this, despite no replies, drop out, incompleteness and quota corrections, starting with more than 5,000 invitees is recommended. To differentiate between different locations in the MKD, the number should be much higher.

2. Conducting the Interviews

=> As such numbers are much too high for face-to-face interviews, and a real challenge for phone interviews, participants are usually invited and the questionnaires sent out by electronic communication tools. However, as the users of a specific tool often have distinct socio-demographic characteristics, using different communication channels is advisable, and selecting respondents according to quota reflecting the target group characteristics (in our example, farmers) is indispensable.

=> to achieve comparability among the high number of interviewees, the questionnaire used must be a “tick the box” form, with no information asked for beyond the boxes ticked. This permits automatic analysis of frequencies, which is what the research question is all about. Applying AI may help detecting patterns in the data.

=> A smaller size pre-test of the interviews is advisable to see if the selection processes, communication tools, questionnaires and analysis methods planned work as expected. While the group may be smaller in the test, the questionnaire should have the foreseen final form (although it will probably have to be adapted) to assess the no-show and the drop-out rates to be expected. Once the technical equipment has been checked and the questionnaire adapted according to the lessons learnt in the pre-test, sending out the interviews and setting a response deadline is quite straight forward. Incoming replies must by anonymised before analysis.

3. Interpreting the Results

The analysis is also quite straight forward. The data reveal that within a confidence interval (given by the number of participants) of 95% the answer is that x% of farmers willing to shift to organic agriculture in the MKD, with an error margin of y% (e.g. 3%, dependent on the methodology). A solid quantitative result is achieved, but no additional insights are gained. IT will usually be used to analyse the high number of response data.

The risk of unobserved responses is, that some respondents may give answers shaped not by how they are, but how they would like to be – although this may be limited due to the high number of respondents.

In total, quantitative social science research requires good planning, access to addresses and significant preparatory work, and the answers are quantitative, proven within an error margin, which should be rather narrow. They inform about facts, but less so about causes and motivations.

Part 2: *Qualitative questions, qualitative methods, qualitative answers*

Objective: learn basic principles for designing, conducting, interpreting qualitative interviews, with practical exercises

What is Qualitative Research?

- Appropriate for understand the **“how”** and **“why”** of a phenomenon rather than “how many” or “how much”
- Focused on **depth of understanding**, rather than generalisability
- Helps us uncover interviewees’ **motivations/ feelings/ perceptions/ opinions**
- Uses **non-numerical data** (e.g. based on interviews, observations)

1. Planning Phase (1/3)

- **Defining main research question**
  - Example: *“What are the motivations, and the expected/ experienced obstacles for farmers to shift to organic agriculture in the Mekong Delta?”*

- **Sampling**
  - Since the question addresses the Mekong Delta region, individuals from all provinces in the region should be interviewed
  - Interviewees don’t need to be a representative sample of the total farming population (regarding: age, education, gender, etc.)
    - But…involving diverse group of stakeholders will give richer results
  - For farmers: about 10-20 group interviews considered sufficient
  - Other relevant stakeholders can also be interviewed (e.g. cooperative managers, extension workers), but fewer interviews are sufficient

1. Planning Phase (2/3)

- **Develop interview guide**
  - Types of interview questions…
    - **Close-ended questions** (e.g. yes/no, multiple choice)
      - E.g. *"Do you have children?"; "How many?"; "Are they planning (a) to become farmers, (b) work nearby in farming-related business, (c) stay in the city to earn more?"*
    - **Open-ended questions** (open, not limited by predefined choices)
      - E.g. *"What are the key challenges you faced during the first year of your transition"*
    - **Patton's Framework** for qualitative questions (Patton, M.Q., 2002, 2015)

	Type of question	Focus of inquiry	Example question
1	**Experience and behaviour**	What people do, have done, or are doing	*"What organic fertiliser do you apply on your fields?"*
2	**Opinions and values**	What people think or value	*"What do you think makes this program effective?"*
3	**Feelings**	Emotional responses	*"How did that experience make you feel?"*
4	**Knowledge**	Factual information participants know	*"How informed are you about organic farming practices?"*
5	**Sensory**	What people see, hear, smell, taste, or touch	*"What did the atmosphere feel like during the meeting?"*
6	**Background/ demographic**	Personal background for context	*"What year did you start practicing organic farming?"*

1. Planning Phase (3/3)

- **Develop interview guide (cont.)**
  - Make sure your questions are easily understandable to your interviewees
  - Avoid leading questions (e.g. “Don’t you think this is bad?”)
  - Make sure order of questions is intuitive
  - Start with general questions and then go deeper
  - You can design the interview to be more structured or unstructured, depending on research needs

  - We chose a **semi-structured** questionnaire
    - Combines close-ended and open-ended questions
    - Offer structure but still allow for deeper responses

What changes in soil health or quality have you observed following conversion to organic production?

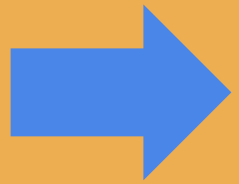
☐	☐	☐
+	+/-	-
Improved	Remained the same	Worsened

What do you think has caused an improvement/ worsening (have organic practices influenced this change?):

Exercise 1: Designing Questions

Instructions:

- Get into groups (2-3 people)
- As a group, draft 1-2 open-ended interview questions that address the research question (10 min)
- Each group shares 1 research question and get feedback (10 min)



RESEARCH QUESTION:

"What motivates CTU students to choose their field of study?"

2. Conducting the interviews (1/3)

- **Conducting pilot interview (if possible)**
  - A smaller pre-test of interviews is advisable
    - Helps to see if…
      - selected interviewees are capable of responding to research question
      - questionnaires are understandable to interviewees
      - Questions are comprehensive enough to capture diverse aspects of the research question

***NOTE**: face-to-face interviews best held in a location that is familiar to interviewees >> e.g. cooperative house for farmer group interview*

2. Conducting the interviews (2/3)

- **Starting the interview**
  - Start by introducing yourself and the purpose of the interview
  - Be transparent about:
    - how the collected data will be used
    - how interviewee's anonymity is secured and that records can be deleted immediately upon request
  - Generally, good to have one person conducting the interview and at least one person taking notes
    - If possible, also record the interview (but prior informed consent of interviewees always required)

2. Conducting the interviews (3/3)

- **During the interview**
  - Be an active listener (e.g. nod, make eye contact)
  - Use questionnaire as guideline, but also go with the flow >> let interviewee talk if they chose a path different from the questionnaire structure
  - Take note of interviewee body language, non-verbal cues, setting etc.
  - Ask follow up questions if necessary
  - Avoid interrupting unless you need to guide conversation back to key discussion points
- **Closing the interview**
  - Ask interviewees if they have anything else they want to share, or have questions to the interviewer.
  - Thank interviewees for their time
- **After the interview**
  - As soon as possible, go through interview notes, together with note-taker to consolidate information and clean up the interview as needed
  - Transcribe information (if interview was recorded) >> can use software like Otter.ai
  - Remove identifiable information to maintain anonymity of interviewees

During the interviews - listen

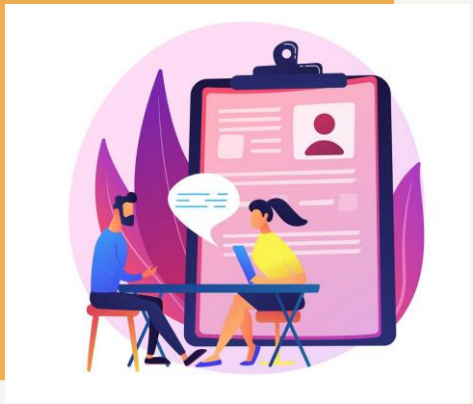
In-depth interview with local stakeholders

Interviewer team and translators/ notetakers

Exercise 2: Practice Interviewing

Instructions:

- Get into group (4 people)
  - 1 interviewee; 2 people interviewers; 1 person filming
- The interviewers will ask the interviewee the questions from the previous exercise (7 min).
- Watch the recording at a later time and assess your performance as interviewers
- Group discussion to discuss how that went (5 min)



3. Interpreting the Results

- **Coding**
  - Assign codes (labels) to meaningful segments of text
    - Identify key or recurring themes and the context they are mentioned in, also beyond the research question
    - Group similar responses or ideas together into categories/ themes
    - Identify patterns (themes connected in most cases, or not so,...), contradictions (diverging valuation of same theme,...), or insights of interviewees & interviewers
  - Use manual coding (e.g. excel sheet) or software (e.g. Atlas.ti, NVivo, MAXQDA, AI tools)

- **Interpretation**
  - Relate themes back to the research questions
  - Remember that is was qualitative interviews, so statement like “we found a strong motivation for *xyz* among interviewees in province *ABC*, but not in province *DEF*” are correct.
  - Statements like “the majority of farmers” or “65% of all farmers are strongly motivated by *xyz*” are wrong as they imply quantitative representativity of the sample of persons interviewed.
  - However, for the majority of interviewees you can say that, but the non-representativity has to be mentioned, and giving numbers should be avoided (misplaced precision).
  - Visualising can be a good way of communicating qualitative results

Exemplary Results

Although need to transition to organic farming was widely accepted among stakeholders >>> there was low level of change on the ground

So important to understand...

- **Felt needs** are detected in farmers' focus groups.
    - The tendency is clear towards organic agriculture, although many are reluctant to do it in practice.
- **Expressed needs** are derived from observing farmers' practices.
    - In reality, the tendency is towards safe rice.
- **Normative needs** are revealed in the in-depth interviews with individuals or small groups.
    - Tendencies diverge between stakeholder groups.

Communicating the Results

Challenges identified

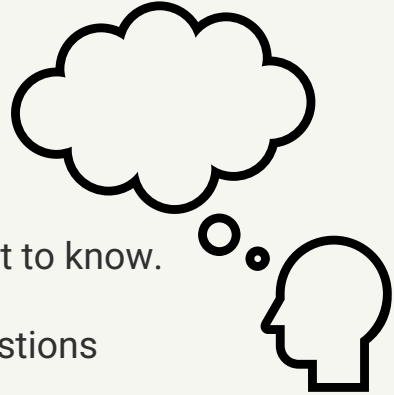
Management: levelling fields, pesticide and fertiliser pollution, pests (here: golden apple snail)

Communicating the Results

Challenges identified

Infrastructure: access and transport, energy efficient rice drying, separate processing

Wrap-up & Reflections



1. Priority is defining your research question. It should precisely ask what you want to know.

1. The question already defines much of the following procedure: quantitative questions require quantitative methods, qualitative questions qualitative ones.

1. Be aware of the significant efforts needed to conduct scientifically sound quantitative social science research - is the expected answer worth the effort?

1. For qualitative interviews, remember that it is a communication which unfolds, best to not interrupt too often. Depending on research design, no need to strictly follow guidance question by question, stay flexible. Ultimately, the questionnaire/ guidance is tool for the research team to structure results and make them comparable.

1. When using AI to analyse similarities and patterns in your recorded data, do not forget to check the suggested AI insights with the original data - AI is no truth machine but error-prone.

1. Any other questions from your side?