Testing and Piloting Instruments

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Methods of Data Collection

- Administrative data
- Surveys- household/individual
- Logs/diaries
- Qualitative – eg. focus groups, RRA
- Games and choice problems
- Observation
- Health/Education tests and measures
Conversation with concerned individuals
Field visits
Community interviews
Reviews of official records (management information and system and administration data)
Participant observations
Focus group interviews
Direct observations
One time surveys
Panel surveys
Censuses
Field experiments

Informal/ less structured

Formal/ more structured
Deciding What to Ask: Purpose of the Questionnaire

- Each question should relate to the study and theory of change
  - Covariates
  - Measurement outcomes

- List all indicators you intend to measure
  - Use participatory approach to develop indicators (existing instruments, experts, beneficiaries, stakeholders)
  - Assess based on feasibility, time, cost and importance
  - Shortlist based on testing and piloting
Deciding What to Ask: Modules

- “Modules” = components or sub-sections of instrument
- Each module captures a different theme
- Logical order, from
  - general -> specific,
  - factual -> attitudinal/behavioral,
  - least sensitive -> most sensitive
- Watch out for priming and question order
Deciding How to Ask: Writing and Adapting Questions

A. Type of question
B. Wording of the question
C. Time-frame/Recall Periods
D. Estimation Techniques
E. Unit of Measurement
F. Detailed coding of answer choices
Recall Periods

- Trade off potential recall (memory) bias from long period reporting against potential variance from short periods

- **Example, consumption:**
  - Frequently purchased items (e.g. food), recall period between one week and one month
  - When practical: diaries for a week or two
  - Durable goods: annual recall basis

→ Reference periods can be different across questions, and sections

→ Different recall periods can present a problem when combining or comparing data across modules
Estimation

- Examples - Distance to school, time taken to reach water source, amount of soap/water consumed, perception and attitudes

- Estimation is important, but can be tricky
  - Provide tools and benchmarks
  - Break down the calculations
  - Cross-check with multiple sources
How many times did you wash your hands yesterday?

A. 0 times
B. 1-2 times
C. 3-5 times
D. 6-9 times
E. 10-15 times

0% 0% 0% 55% 36% 9%
Outcome: Gender Bias
Question: How effective are women leaders? (ineffective, somewhat effective, effective, very...)

A. Accuracy
B. Precision
C. Both
D. Neither

Graph showing:
- 18% Accuracy
- 29% Precision
- 29% Both
- 24% Neither
Perceptions and Attitudes

- Ask directly
  - “How effective is your leader?” (ineffective, somewhat effective, effective, very…)

- Indirect approaches often have better accuracy
  - Listen to a Vignette (Male v. Female)
  - Revealed preference – voting behavior
  - Implicit Association tests
Implicit Association Test
Find a match on Left or Right?

A. Woman or Sport  
B. Men or Music

![Bar chart showing 35% for Woman or Sport and 65% for Men or Music]
Find a match on Left or Right?

A. Woman or Music
B. Men or Sport

0% 0%
Implicit Association Test

- People simplify the world for efficiency
  - Use thumb rules to draw connections
  - May not even be aware themselves

- For some important outcomes, may be worth trying to measure these indirectly
  - Implicit association one technique
  - Actually based on response time, not accuracy
Implicit Association Test
Detailed Response Coding

- **Designing good response codes** requires background, qualitative research and testing.

- Pre-coding requires that codes be clear, simple, and:
  - Mutually exclusive;
  - That they exhaust all likely answers;
  - That respondents will not all provide the same response;
  - And that none of the codes apply to only a handful of respondents.

- To ensure codes encompass all possible answers, add “other (specify______)” code.

- Allocate code numbers to answer choices.
TESTING AND PILOTING
Piloting

- Questionnaire is ready – so what’s next?

- Piloting
  - Trial run of questionnaire
  - Practice asking questions
  - Have we missed anything?
Importance of Piloting

- Finding the best way to procure required information
  - Choice of respondent
  - Type and wording of questions
  - Order of sections
  - Recall period

- Piloting and fine-tuning different response options and components

- Understanding of time taken, respondent fatigue and other constraints
Steps in Piloting

- ALWAYS allow time for piloting and back-and-forth between team on the field and the researchers

- *Two phases of piloting*

- **Phase 1:** Early stages of questionnaire development
  - Understand the purpose of the questionnaire
  - Test and develop new questions
  - Adapt questions to context
  - Build options and skips
  - Re-work, share and re-test
  - Build familiarity, adapt local terms, get a sense of time
Phase 1 of piloting

To understand how to frame and ask new questions -

- Focus groups - Meet with respondents to discuss how they think about types of behaviors, preferences you want to learn about (Context specific questions)
- Field visits and informal 1 to 1 small group discussions
Steps in Piloting

- **Phase 2:**
  - Field testing just before surveying
  - Final touches to translation
  - Questions and instructions
  - Keep it as close to final survey as possible.
Implementation of the Pilot

- Find a population similar to the people in the study, but won’t be a part of the study. Example: village/slum close to sample village/slum

Protocol

- Lots of new questions/ new context – pilot at least 30-40 times
- Recycling old questions- at least 15-20 times
- Pilot as often as you add new questions
- If the respondent type is known, then test on the same, otherwise pilot to determine best respondent
- Engage the respondents so that they can discuss the questions
- If others are piloting your tool, ensure that they do not make their own assumptions about questions
Things to Look for During the Pilot

- Comprehension of questions
- Ordering of questions - priming
- Variation in responses
- Missing answers
- More questions for clarifications? Cut questions? Consistency checks?
- Is the choice of respondent appropriate?
- Respondent fatigue or discomfort
- Need to add or correct filters? Need to add clear surveyor instructions?
- Is the format (phone or paper) user-friendly? Does it need to be improved?
Testing and Piloting

Example 1: Simplify/clarify questions

Do you use Student Evaluation Sheets in your school?
A. Yes
B. No
C. Don’t know/Not sure
D. No response

They might not know it by this name (show them a sample)

You may need to break it up into several questions to get at what you want
A. Do you have them?
B. Have you been trained on how to use them?
C. Do you use them?
Example 2: Ordering questions and priming

- Yesterday, how much time did you spend cooking, cleaning, playing with your child, teaching/doing homework with your child?
- Do you think it's important for mothers to play with children?
- Do you think mothers or fathers should be more responsible for a child's education?

If Questions 2 and 3 had come before 1, there could've been a possible bias, order and wording of questions is important.
Example 3: Variation in Responses?

- Question: What is the earliest a girl should be able to get married?
- Question: Have you used a loan for a non-business purpose?

- Legal, politically correct or socially desirable response?
- Reframing or rewording of question and answer options necessary?

- Explore alternative solutions
Importance of Language and Translation

- The local language is probably not English, which makes things tricky as to the wording of certain questions
  - But people be familiar with “official” words in English rather than the local language

- Translate
  - Ensures that every surveyor knows the exact wording of the questions, instead of having to translate on the fly

- Back-translate
  - Helps clarify when local-language words are used that don’t have the same meaning as the original English
Documentation and Feedback

- Notes – time, difficulties, required or suggested changes
- Meetings to share inputs
- Draft document
- Keep different versions of the questionnaire