

BREAKDOWN POINTS IN THE DATA GATHERING PROCESS.

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1. RESPONDEE LACKS KNOWLEDGE OF INFORMATION IN QUESTION.

(Complication : respondee will provide an answer in any case in effort to save face, or to be "helpful").

(a) Sources of problem.

- The type of information being sought is simply not generally known in the study area; e.g. area measurements, weight, "income".
- Responsibilities, decision making, and thus knowledge of all activities in unit of observation may not be centered in the person identified as primary respondee; e.g. extended households with fragmented production and consumption units, female incomes.

(b) Corrective actions.

- To avoid recording uninformed "guesstimates", emphasize to respondees that "I don't know" is a valid response, establish a relaxed interview setting.
- "area familiarization" should include identification of local knowledge system: what is known? In what form or terms? By whom?
- Familiarize yourself with the internal organization of social unit of observation.
- Seek out information from others in unit who would know; need to get approval for such "supplemental" interviews at outset and to maintain rapport with all persons in unit.
- Direct measurement of items unknown by anyone.

2. RESPONDEE INCORRECTLY CLAIMS NO KNOWLEDGE OR DELIBERATELY PROVIDES MISLEADING INFORMATION - LYING.

(a) Sources of problem.

- Mistrust of survey's purpose; fears harm to own interests, e.g. tax, land seizure.

- Fears wide spread knowledge of sensitive personal information in the community.
- Respondee is bothered by the survey wasting his time.
- Mischief.

(b) Corrective actions.

To identify :

- Conduct in-field checks where possible.
- Build in consistency cross-checks in interview forms.

To minimize initially :

- Receive approval and introduction from traditional local leaders (complication : be sensitive to local politics - approval from and too close identification with one group of elites may alienate you from parts of your sample).
- Clearly state purposes of study, uses of data, and degree of confidentiality at the outset; repeat often, in public meetings and in private sessions with each respondee.
- Develop and maintain rapport, earn their trust - critical for both researcher and enumerator.  
How ? . . .
- Identify what types of data are sensitive; is it really sensitive ? How can it be asked ?
- Interview in private.
- Enumerator selection: personality - doesn't carry air of superiority, can maintain confidentiality, relates well. How ? . . .
- Sample selection : should involvement be voluntary ? Can honesty be used as a selection criteria ? What biases might these introduce ? Can the biases be identified ?
- Keep interviews brief.

3. RESPONDEE FORGETS AN EVENT OR CAN'T RECALL DETAILS WITH ACCURACY - MEMORY LOSS.

(a) Sources of problem.

- Too much time has elapsed since the event.
- Information not well "registered".

- Reference period confusion; overlap with previous interviews.
- Respondee was not directly involved in the event.
- The question is not framed in the terms of the respondee's "memory file" thus is difficult to "retrieve"; e.g. harvests, labour, expenditures.
- Respondee is tired, distracted, or in a hurry during interview.
- Respondee has a poor memory.

(b) Corrective Actions.

To identify :

- use interview form cross-checks.
- Conduct in-field visits to verify data where possible.

To minimize :

- Identify (at least approximately) and group types of data according to rate of memory loss and then use a multiple frequency interview approach.
- Disaggregate questions using local knowledge system or memory categories; ask yourself: in what terms and within what mental framework do respondents organize their knowledge and recall of events (problem : requires relatively close familiarity with study area).
- Use information obtained on earlier interviews to ask more disaggregated, focussed, and specific questions in subsequent interviews; design schedules so that earlier information can be directly incorporated onto survey form to facilitate this.
- Assist the respondent to focus on the subject matter through preliminary or "set-up" questions and comments to shift his attention to the area of enquiry: then keep it there; e.g. grouping questions by "field" rather than by subject matter such as "labour".
- Direct questions at persons most directly concerned with the information in question.
- Select interview time and situation in which respondent is unrushed and undistracted. Where ? When ?
- Train enumerator to conduct a deliberately paced interview; do not give the enumerator such a heavy work load of interviews to prevent this.

- Select sample using recall ability as a criterion or, better, to deselect those with demonstrated high memory loss ? (problems : how to identify and what biases are introduced ? Can the bias be identified ?)

4. ENUMERATOR ASKS THE QUESTION IMPROPERLY MISSING THE INTENT OF THE QUESTION.

(a) Sources of problem.

- Enumerator is inadequately trained in content and use of interview form.
- Language problem : between researcher and enumerator, and/or between enumerator and respondee.
- The interview form is inadequate : it is not sufficiently explicit in identifying the precise meaning of the question and/or the question is not properly translated to get at the specific intended meaning.
- The enumerator may be tired, in a hurry, or just sloppy.

(b) Corrective actions.

- Enumerator selection : language competency in your language and in dialect of the study area; intelligent and careful (problem : how can you measure these before hiring ? )
- Interview schedules can be translated into local dialect (the benefits of this step are obvious, but what are the costs ? )
- Enumerators can participate closely in the conception, design, translation, and testing of schedules.
- Use categories and concepts in questions which have clear, unambiguous local content and mutually understood meaning.
- Do not burden the enumerator with "too" heavy a daily interview requirement (what is an acceptable load ? What is it a function of ? )

5. ENUMERATOR SIMPLY DOESN'T ASK ALL THE QUESTIONS.

(a) Sources of problem.

- Interviews not run; due to enumerator absence, disability, transport problem, or dishonesty.
- Question overlooked on the interview form; can be caused by confusing schedule design and/or sloppy, hurried enumeration.

- Question is obviously redundant or unreasonable, thus the enumerator doesn't pose the question rather than embarrass himself and annoy the respondent.
- Enumerator expects a particular answer on the basis of earlier response patterns, thus records it without confirmation.

(b) Corrective actions.

To identify : the researcher should

- Conduct frequent re-interviews with respondents to ensure complete interviews are being conducted (problem : researcher should not appear to respondents as distrusting enumerator - can be informally conducted during "social" visits).
- Look for inconsistencies in the data and response patterns which look suspicious.
- Require an entry for all major and minor questions on the interview form regardless of the response; do not allow blanks for any negative responses; e.g. use of "Yes/No" boxes.

To minimize :

- Enumerator selection : honesty (problem : how to determine before hiring ? )
- Layout interview form so that all questions are clearly and separately identified; e.g. multiple inputs question on same form.
- Don't ask stupid questions or, at a minimum don't phrase questions so that they sound stupid.
- Select questions for continuous asking only when some variation in responses is expected.
- Involve enumerators in developing questions and in schedule design.
- Color code schedules for easier location in booklet.
- Maintain your own rapport with enumerators (how ?).
- Hire a sufficient number of enumerators at the outset to allow for temporary absences, sackings, or mortality among field staff; develop contingency plans to allow for continued field operation with reduced staff.

6. THE RESPONDEE MISINTERPRETS THE QUESTION.

(a) Sources of problem.

- Questions are inadequately translated into the local idiom.
- The question is too complex and confusing.
- Respondee is relatively dull.
- Enumerator conducts interview too rapidly.
- The respondee is tired, distracted, or in a hurry.

(b) Corrective actions.

- Questions should be as simply phrased as possible and couched in terms familiar to the respondee.
- Translation into the local idiom should be thoroughly checked through pre-testing and "back-translations".
- Train the enumerator to be able to explain questions to the farmer rather than simply pose them.
- The respondee should be encouraged to answer "I don't understand" when it applies; don't create an atmosphere in which the respondee loses face in admitting confusion.
- Select an interview time and situation in which the respondee is alert, relaxed and undistracted.
- Apply some minimum level of intelligence in sample selection ? (How ? What are the biases ? Can they be identified ?)
- Do not overburden the enumerator with an excessive interview load.

7. THE ENUMERATOR MISUNDERSTANDS THE RESPONSE.

(a) Sources of problem.

- Enumerator lack of fluency in the local idiom.
- Enumerator is not familiar with the "environment" of the survey area and/or the research problem.
- Enumerator is rushed or distracted.

(b) Corrective actions.

- Select enumerators who have lived culturally and physically in areas similar to that of the survey and preferably who have lived under conditions identical to the survey population; e.g. at least persons who grew up in rural areas to work on rural surveys, and persons with extensive urban experience to assist in urban surveys.

- Select enumerators with a substantive knowledge of and experience in the research problem (the benefits of this are obvious, what are the costs ?)
- Identify what gaps there are in the enumerators' experience and provide training to fill these gaps before going to the field (structured group discussion among enumerators are perhaps the best vehicle to accomplish this).

#### 8. QUESTIONS AND RESPONSES IDENTIFY UNINTENDED INFORMATION;

e.g. lack correspondence between institutional systems - "biki" - and more language confusion - "flogging"; insufficiently identified datum.

##### (a) Source of problem.

- Insufficient understanding of local institutions and idiom.
- Failure to ask supplemental questions to pin-point exactly what it is you have been told; e.g. crop sales.

##### (b) Corrective actions.

- Pre-study local institutions thoroughly (literature of rural sociologists and anthropologists can often be most useful).
- Define and use precisely all institutional terms in local idiom (do not borrow institutional terms from Western experience translated into local idiom equivalences).
- Ask questions which cross-classify all critical information in terms of all relevant characteristics.

#### 9. ENUMERATOR MISRECORDS INFORMATION ON THE INTERVIEW SCHEDULE.

##### (a) Sources of problem.

- Interview form layout is confusing - entry points not clearly delimited; ordering of oft-repeated items not uniform- e.g. "type, number, unit, form".
- If schedule is precoded, enumerator confusion in use of codes.
- Poor quality of duplication of interview schedules.
- Use of conventions not familiar to enumerators;
- Inadequate enumerator training under real or simulated interview conditions.

Enumerator rushed or otherwise careless.

(b) Corrective actions.

To identify : thorough, frequent cross-checks by supervisor in the field.

To minimize :

- Design schedule with data entry points clearly identified and provided with ample space.
- Order questions and entry points in a consistent and logical sequence so that the enumerator does not have to skip back and forth between different parts of the schedule.
- Use code number assignments consistently across all schedules.
- Order frequently reappearing data in a consistent place and sequence; e.g. house ID number, name of household head, date of interview, etc.
- All codes relevant to a given form should be instantly available to the enumerator without turning pages or having to refer elsewhere; e.g. use of backside of previous schedule page.
- Use pencil to encourage easy correction of mis-entered data.
- Critical information (such as household or field identification) should also appear written even if codes are used.
- Enumerator selection : neatness.
- Train enumerators extensively under interview conditions to develop facility with forms and codes; e.g. mock interviews.

10. COMPLETED SCHEDULES ARE DAMAGED OR LOST.

(a) Source of problem.

- Pencil entries smear (using soft lead).
- Paper falls out of schedule booklet due to low quality materials or abusive wear.
- Schedule booklets lost in travel between interview sites.
- Completed schedules left in the possession of enumerators "too long" (what is too long? What are the disadvantages of immediate removal?)

- Theft.
- Inadequate raingear and housing for enumerators.
- Enumerators hold data as hostage in salary "negotiations".

(b) Corrective actions.

- Use high quality materials for schedule papers, booklets, and pencils (this is the least cost-effective place to save money).
- Supply enumerators with adequate raingear and schedule carrying equipment; e.g. water-proof shoulder bags.
- Ensure enumerators are living in conditions which provide materials with protection from the elements and with adequate security.
- Develop and enforce the practice of a security system for all materials in central office and enumerator's living quarters.

11. ERRORS INTRODUCED IN CONVERTING LOCAL UNITS OF MEASURE INTO UNITS REQUIRED FOR ANALYSIS; e.g. weights.

(a) Sources of problem.

- Necessary measuring equipment not available in country, of low quality, or very costly; e.g. scale.
- Equipment damaged in rugged field use.
- Enumerators lack competence in use of measurement equipment.
- Respondees may be reluctant to modify their behaviour to permit measurements; e.g. harvest weights.
- Sampling problem - respondee and enumerator biases enter in selection of units for measurements.

(b) Corrective actions.

- To the extent possible obtain what equipment is necessary before going to the field; at a minimum get assurances that equipment can be obtained in the field and identify at what price; be adequately budgeted.
- Stock an adequate reserve of back-up equipment to cover expected breakdowns and malfunctions.
- Test equipment frequently

- Develop and enforce a system of equipment protection and maintenance.
- Enumerator selection : skills in use of technical equipment.
- Provide enumerators with intensive in-field training in use of equipment and supervise closely.
- If behaviour modification on the part of respondents is necessary for measurements to be made, interact personally with the respondents to explain the purpose and importance of the measurements.
- Provide respondents with supplemental equipment if necessary to facilitate measurements; e.g. give sacks as gifts to assist farmers in crop storage and measurements before weighing.

12. ERRORS INTRODUCED IN TRANSFERRING DATA AND IN INITIAL PROCESSING.

(Three types : clerical errors in copying data onto code sheets, computational errors introduced when aggregating data, and card punching errors in preparing data for computer processing).

(a) Sources of problem.

- Poor quality of initial entries.
- Damaged forms.
- Inattentive, sloppy work of office personnel.
- Poor arithmetic skills of field or office personnel.
- Confusing schedule layout.

(b) Corrective actions.

- Keep copying, transformation, and aggregation of data by hand to an absolute minimum by designing schedules to permit direct card punching from original entries. (What are the trade-offs involved in pre-coding ? . . . anticipation of relevant, inclusive, and unambiguous categories; lack of flexibility; schedule design time; enumerator errors in use of codes, etc).
- Design schedules with uniform layout and clear, well marked columns and rows.
- Perform necessary computations on calculating machines equipped with permanent ribbon-record showing all entries.

- Systematically double-check all calculations and transfersals.
- Enumerator and office staff selection : high proficiency in arithmetic skills.
- Before removing schedules from interview booklets, thoroughly review all entries for clarity.