AEC 874 (2009)

Field Data Collection & Analysis in Developing Countries

I. Introduction

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Topic Outline

A. The Nature of Research
B. The Research Proposal
C. Planning the Field Study
D. Documenting Project Activities
E. Ethical Considerations in Social Science Research
A. The Nature of Research

1. Goals of science?
   To gain a better understanding of world around us
   - Observe and describe
   - Discover regularity
   - Generalize regularity to theory

2. Definitions
   - **Research**: systematic investigation in some field of knowledge to discover facts/principles
   - **Scientific Method**: systematic approach for conducting the investigation. Scientific implies a rational, linear, cause & consequence sequence

   ✓ Scientific knowledge is a subset of all knowledge, defined by the **process** used to obtain it

   ✓ Systematic procedures adopted are intended to **minimize** the impact of our **biases** on our results

   **Examples**: welfare moms, blonds, grain sales?
3. What distinguishes science from other activities?

Both scientists and non-scientists observe, look for regularity, assert theories **BUT** science imposes greater rigor

(Babbie, Ch. 1, The Logic of Science,—comments? Joey)

“**Good**” Science is:

- **Logical**
  - ✓ Hayami: Ho: MV => sickle => change in bowan share
  - ✓ How would you test Ho (what data and analysis needed)?

- **Deterministic**
  - ✓ Events (voting behavior, adoption) have antecedent causes that can be identified and understood, rationally explained

- **General**
  - ✓ Interested in a general understanding, not a single case, goal is to generalize—sampling implications?
    (e.g., adoption by single farmer vs. farmer adoption in a district/region/country)
o Parsimonious

✓ What’s the minimum number of explanatory factors (simplicity)?

✓ Everything is related to everything BUT…can’t look at everything (farming systems research tried to do this!)

o Specific

✓ Must be precise in measuring a concept

✓ Requires specific “operationalization”, which tell how the concept was measured (i.e., adoption: ever?, adopted but rejected? adopted & continue to use?)

o Empirically verifiable

✓ We verify by collecting and analyzing data

✓ Research must be able to specify the conditional under which the theory would be disproven. As we consistently fails to disprove the theory, then we becomes confident that the theory is correct.

But theory is NEVER proven
Theory: HYVs give > yield than TVs
Ho: Adopters yields = non-adopters yields
H_A: Adopters yields > non-adopters yields
Test to see if yields are equal. IF No: accept Ho, adopters > yield

- Inter-subjective
  - Two scientists will come to same conclusions, if they did the same experiment (Myrdal: is social science objective?)
  - So, why disagreement among scientists? (Rogers: different definition, conceptualization, data)

- Open to modification
  - Theory is evolving, “Today is a day in the history of economic thought”
  - Conclusions based on “today’s” weight of evidence
  - Errors in methodology are cumulative, many key decisions affect the quality of research
4. How do we prove things in science?
   o Proof in science is indirect
     There is no “proof” in science, since alternative Ho may later give better answer

   o Concept of Disproof:
     Science advances by proposing alternative Ho, attempting to disprove them, and accepts the Ho that can’t be disproven

   o Hard science allows others to verify by replication, but social science research is impossible to replicate
     ✓ Results depend on integrity of researcher

     ✓ Similar results elsewhere (citations)

     (One study: same data, different conclusions…why?)
5. Where do we get our hypotheses?
   - **Inductive** reasoning: involves observing a particular instances to general principles; facts to theory
   - **Deductive** reasoning: involves inferring from the general to the particular; theory to a particular case
   - Modern science is built on **inductive** reasoning.

   But typically, scientific research involves BOTH inductive and deductive reasoning, as scientist shifts back and forth between theory and empirical observation

   - Sources of our hypothesis?
     (i.e., proposed answer to a research question)
     - A flash, inspiration, often based on experience
     - Careful, logical, critical thought
     - Draw on existing theory/literature
6. Must all research focus on testing Ho, established at the beginning of the project?

- All research questions are **not amenable** to the strict formulation of hypotheses:
  - Some studies seek only to describe
  - Some questions involving measurement (yield level)

- **Popper**: complex problems involve “sequential tinkering”. At the beginning, you don’t understand enough to formulate Ho (exploratory study required)

- **Leamer** argues starting with hypotheses may bias the analysis (“Lets Take the Con Out of Econometrics”)

- **Sherlock Holmes**:
  - “It is a capital mistake to theorize before you have all of the evidence. It biases the judgment.”
  - Theory developed before facts can be difficult to discard
Many researchers prefer to propose “research questions”, rather than hypotheses.

7. What are the major categories of research?

- **Basic research**—researcher seeks to understand fundamental relationships, rather than specific application (disciplinary research)

- **Applied research**—researcher seeks to understanding in order to solve a “real” problem

  *(Hooperism: Are you seeking a solution to a problem that doesn’t exist?)*
8. What factors determine data to collect in applied research? 
(Casley & Lury, Ch. 2, Deciding What Data to Collect)—comments ??? 
(Alrick & Settle, Ch. 1, Initiating a Survey)—comments? ???)

a) Must set priorities—Why do you need these data?
   o Consider the needs of the client—there are many interesting, but fewer important issues
   o User-surveyor dialogue—discuss issues, draft proposal, questionnaire
   o Minimum data needed to address the issue
   o Consider alternatives to doing a survey
     ✓ Are secondary data available?
     ✓ Conduct a survey as the last option
   o Avoid tendency to “play safe” (due to poor identification of objectives) by collecting too much data
b) Must consider resource constraints for implementing survey research in developing countries (and the US)

1) Availability of Information/literature to guide your research

   Explore the availability of:
   - Published articles, reports
   - Gray literature, which is often extremely useful!
   - Primary data collected by other researchers
   - Secondary data--national statistics
   - Experimental trials/results

2) Human resource constraints
   (e.g., the availability of trained enumerators)

3) Physical constraints
   (e.g., availability of transport, office space, computers)
4) Availability of financial resources—relaxes other constraints

5) Time required to collect data—almost always underestimated!!!

**Funneling Diagram:** Trade-off between objectives and Resources; must reconcile conflict between means and ends

**Key question**
What research can you carry out with available resources (e.g., number of topics/question, sample size, spatial distribution of respondents)
9. Designing the Research Plan (Fox)—comments? Ben M.

Detailed conceptualization of all stages in the research process

a) Format
   1) Underlying dynamics—why?
   2) The stage—what?
   3) Outcomes—results?

b) Stages of the research process  

Part 1 Designing the Research Plan (13 stages)

Stage 1: The initial idea or need and problem area
Stage 2: The initial review of literature
Stage 3: Defining the specific research problem
Stage 4: Estimating the success potential of the proposed research
Stage 5: The second review of the literature
Stage 6: Selecting the research approach
Stage 7: Stating the hypotheses of the research
Stage 8: Selecting the data gathering method(s) and technique(s)
Stage 9: Selecting and developing data-gathering instruments
Stage 10: Designing the data analysis plan
Stage 11: Designing the data gathering plan
Stage 12: Identifying the population and invited sample
Stage 13: Pilot studies of the data-gathering approach, methods, and instruments, and the data-analysis plan

**Part Two: Implementing the Research Plan (3 stages)**
Stage 14: Implementing the data-gathering plan
Stage 15: Implementing the data-analysis plan
Stage 16: Preparing the research reports

**Part Three: Implementing the Results (1 stage)**
Stage 17: Dissemination of results and agitating for action
c) Assessment
   1) Are all of the stages necessary?
   2) Is this a useful guide for planning a thesis/dissertation?

d) Is the model fully applicable to implementing applied research in LDC (other than thesis/dissertation research)?

Some limitations
   o Formal research proposals are often not required, considered important
   o Literature may not be available
   o Client may not demand the rigor expected by academic faculty
   o Time/resource constraints may make it difficult to follow all of Fox’s stages/recommendations

Any Lessons?
B. The Research Proposal

Have you ever written a research proposal?

Research often proceeds without a proposal...Consequences?

1. Purpose of the proposal
   a) Organize your ideas into a systematic approach to investigating the study
      o Format determined by your advisor, committee
   b) Obtain funding for your study
      o Follow the format/requirements of the funding agency
      o Provide sufficient background so non-specialists will understand the issues/methodology
Helpful Guides for Writing a Funding Proposal:

- Levine, “Guide to Writing a Funding Proposal”--Comments? Madison
- CIMMYT--comments? Madison
- Wiley--comments? Madison
- Przewrski & Salomon--comments? Madison
- Funding sources (Wiley)--comments? Tamara
- Class project

A research proposal should: (John Staatz)

- State **WHAT** the research questions are
- Explain **WHY** the research question are important
- Identify the **KNOWLEDGE GAP** your research will fill concerning the research questions
- Tell **HOW** you intend to address the research questions
- What theory and models will guide your analysis
- What hypotheses you will test
- What specific methods you will use to test the hypotheses
- State **WHAT KINDS OF CONCLUSIONS** you anticipate
3. Thesis/Dissertation Research Proposal Outline: (Rick Bernsten)

I. Introduction
   o Background
     ➢ Provide information about the issues/problem setting
   o Justification
     ➢ Why is the research important?
     ➢ Why is there a need to conduct additional research (knowledge gaps) on this issue/problem?

II. Objectives & Research Questions
   o Objectives
     ➢ General Objectives—describe your general objectives
     ➢ Specific objectives—describe your specific objectives

   o Research Questions/hypotheses—describe the research questions you plan to address (as noted in the research matrix)

III. Literature Review—discuss literature that guides your research
IV. Research Methods  
(i.e., methods to achieve your objectives/answer research questions)

- What model(s) will you use?
- What specific data will you use?
- How will you analyze these data?

V. Timetable—when & where you will collect your data

VI. Budget—what the study will cost (list each cost item)

References

Appendices
- Research Planning Matrix
- Questionnaires/Key informant interviews  
  (i.e., describe each questionnaire, including specific types of data each will be used to collect)
4. Research Planning Matrix

**Definitions**
- **Research Area (RA)**—the general area of research (e.g., production, marketing, trade, consumption)
- **Research Question (RQ)**—the questions/issue you want to answer
- **Date Type (DT)**—the type of data you will need to collect to answer the RQ(s) (e.g., monthly retail prices, annual imports, varieties farmers plant, farmers’ yields, farmers’ production costs, opportunity cost of labor)
- **Source of Data (DS)**—the source(s) of the data required to answer the RQs (e.g., Bureau of Central statistics, key informant interview, survey of farmers, survey of traders)
- **Required Analysis (RA)**—how you will analyze the data required to answer the RQs (e.g., tabular analysis, descriptive statistics, t-test to evaluate difference in means for two groups, analysis of variance, chi square analysis, correlation analysis, regression analysis)

- **Survey Question (SQ)**—if data will be collected via a survey, identify the survey types and specific questions
Application

o A useful tool for helping you think through the research process

o Typically, a research study focuses on several different RAs

  ➢ For each RA, you will likely investigate several RQs

  ➢ To answer each RQ, you may need to collect several DTs

  ➢ For each DT, you may need to collect data from > 1 DS (e.g., volume of imports--government import statistic; firms that import the product of interest)

  ➢ For each DT, you need to identify the DA you plan to carry out

  ➢ For the research matrix to be most useful, for each RA: you must identify the specific RQs, DTs, DSs, DAs, and the associated RQs
Be Specific!!!

- For DT required, rather than describing that you need “import statistics”, you should describe the specific data that you need (e.g., “imports statistics for tomatoes, onions, and green peppers (mt, or $ value) for the past 5 years, by country of origin”).

- For DS, rather than describing the source as “key informants”, you should describe the specific source (e.g., “key informants—produce managers of the 10 largest supermarkets in Manila”).
**Presenting the Research Matrix**

- Entering this information in a tabular format (below) provides a condensed summary of your research plans.

- Also, further document your research plans in a text format by providing details about each item described in the research matrix.

<table>
<thead>
<tr>
<th>Research Area</th>
<th>Research Question</th>
<th>Data Type (data required)</th>
<th>Data Source</th>
<th>Data Analysis</th>
<th>Survey Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology adoption</td>
<td>What pct. of farmers have adopted MVs?</td>
<td>Names of varieties farmers planted</td>
<td>Farmer survey</td>
<td>Desc. stats-pct. of MV adopters</td>
<td>Q 26</td>
</tr>
<tr>
<td></td>
<td>What pct. of the area is planted to MVs?</td>
<td>Area farmers planted to each variety</td>
<td>Farmer survey</td>
<td>Desc. stats-pct. of area in MVs</td>
<td>Q 26, Q 27</td>
</tr>
<tr>
<td>Marketing</td>
<td>Where do farmers sell their crops?</td>
<td>Locations farmers sole their crops</td>
<td>Farmer survey</td>
<td>Desc. stats—pct. of sales/location</td>
<td>Q 42.</td>
</tr>
<tr>
<td>Farm Equipment</td>
<td>What farm equipment do farmers own?</td>
<td>Type of equipment owned</td>
<td>Farm survey</td>
<td>Desc. Stats—pct of farmers owning equipment</td>
<td>Q 54</td>
</tr>
<tr>
<td>Input use</td>
<td>Is there a relationship between farm size and fertilizer rate?</td>
<td>Farm size (ha) and fertilizer use (kg/ha)</td>
<td>Farm survey</td>
<td>Corr. Analysis—farm size with kg/ha</td>
<td>Q 66, Q 77</td>
</tr>
</tbody>
</table>

26
C. The Thesis/Dissertation

1. Overview
   a) Purpose
      o Tell a story
      o Integrate theory, data, analysis = = = > conclusions, policy implications
   b) Format/organization
      o Determined by your advisor, committee
      o Review theses/dissertations of students in your department
   c) Generic Outline for a Survey-based Thesis/Dissertation

Title: should tell what, where

Example
Factors Associated with Farmer Adoption of Orange-Flesh Sweet Potatoes in Gaza Province, Mozambique
Ch. 1. Introduction
  o Background/problem statement: must provide information needed to understand objectives
  o Objectives: a general statement of what you will accomplish
  o Hypotheses/research questions: must describes specific analysis to meet objectives
  o Justification: must tell why more work is needed in this area
  o Organization of thesis: describes chapters that will follow

Ch. 2. Problem Setting
  o Description of country, agriculture, and relevant institutions, policies

Ch. 3. Analytical Framework
  o Conceptual framework: related studies (relevant literature)
  o Analytical framework: specific methodology; models to be estimated
Ch. 4. Research Design
- Characteristics of the study area
- Description of data collection methods
  - Secondary data: types, years
  - Key informant interviews: who, why
  - Surveys: sampling methods, sample size, description of data collected

Ch. 5. Results/Analysis (1-2 Chapters)
- Must answer objectives and hypotheses/research questions

Ch. 6. Summary and Policy Implications
- Summary
- Policy implications
- Limitations
- Further research needed

Examples: Your Thesis Topic?
2. Completing the Thesis/Dissertation (Madsen)—comments?

Ben S.

a) Success factors
   o Break thesis in to pieces, all of which support the story
   o Recognizing that you have the most at stake
   o Complete thesis before leaving campus

b) Frequent problems
   o Too broad, no focus
   o Too much independence
   o Too casual (e.g., fails to meet professional standards: format, spelling, grammar, citations, tables)
   o Poorly written/lacks clarity--Go to MSU’s Writing Center for help!!!

But, keep in mind
The Best is the greatest enemy of the Good!
c) Selecting an advisor/committee
   o Consult with other graduate students
   o Look for faculty with:
     - with similar research interests
     - with technical skills with which you need assistance
     - who work well together
     - have the work/advising style you prefer (independent/close)
   o Choose a mix of faculty of different rank

d) Student’s responsibilities (you have the most at stake)
   o Keep in touch with your advisor (e.g., weekly appointments)
   o Learn about advisor’s expectations: publications, deadlines
   o Get agreement on proposed analysis before proceeding
   o Learn about MSU’s thesis/dissertation requirements (review MSU’s Graduate Thesis/Dissertation Guide)
e) Topic
- Manageable, interesting, you have the necessary skills
- Own idea: requires more independence, must seek funding early, will likely take more time
- On-going project: you benefit from team interaction
- Major “theoretical” contributions infrequent
- Typically, students use existing models/tools in new context
- Generally, these produce new facts, relationships, insights & interpretations in a new research setting

f) Submitting the dissertation
- See MSU’s Graduate School’s thesis/dissertation formatting guidelines (PPT, document)—comments? Helder
- Most common mistakes in submitting theses (Conlin)—comments? Helder
D. Planning the Field Study

1. Major Steps in Survey Research
   o Alreckh & Settle, Ch 2, Planning the Project (Fig 2.1)—comments? ???

2. Operations Schedule
   (Fielder, Ch. 1, Planning the Field Operations)—comments? ???

   **Def.** Schedule of what must be done and conditions for carrying it out successfully (**Task Calendar**).
   
   o Bigger project, more detailed planning required
   
   o Refer to **research planning matrix**—research question, data needed

   a) What must be done? (tasks)
      o List of tasks by stages

   b) Where will it be done (location)?
      o In office, field
c) Who does it (staff)?
   o Assign specific responsibilities

d) What materials are needed (materials)?
   o Logistics: paper, petty cash, vehicles, special equipment for staff
   o Budget specifies needs (Budget Generator)

e) When must it be done (time)?
   o Chronological time when it should happen (factor in holidays, farmer availability agricultural calendar)
   o Duration: How long will it take to do the surveys?
     ➢ Travel to site
     ➢ Find the respondent
     ➢ Introduce the study (and drink tea!!!)
     ➢ Typically, you can interview only 3-4 respondents/day
     ➢ Check data in questionnaire
     ➢ Conduct recall interviews
Murphy’s Law “If anything can go wrong, it will.”
  o Plan for slack time
  o Always overestimate time required
  o Dry runs helps develop a realistic timetable

3) Research Site Selection
  a) Should explicitly specify criteria in sampling design
  b) Should have defensible rational, especially if using non-random procedures

4) Communications, Information, Authorization
   (Hirschfield, Ch. 19, Fieldwork in Rural Areas—comments? ???
   a) Objective—Create a positive “perceptions”, will affect project implementation

   b) Levels of Authorization (depends on country)
      o Government research council: follow rules to get a visa
      o Sponsor: follow Institute’s, university’s procedures
      o Government: follow protocols for getting approval from provincial, district, sub-district, and village officials (both political & functional units—e.g., extension service)
        ➢ Letters of authorization often useful
o Explain All Aspects of the Study (at all levels)
   Must present consistent, non-political message
   ✓ Sponsor (known organization)
   ✓ Topics, purpose
   ✓ Informed consent (see UCRIHS consent statement)

d) Village Cooperation Necessary, so Be Aware of Your Possible impact!

o Before entering village:
  ➢ Learn about local culture/village structure/politics
  ➢ Have “rapport” plan

o Initial contacts (function of local administrative structure)
  ➢ Greet village leaders (formal, informal) - “kola”

o After approval, make broader contacts
  ➢ Host a meeting to explain study to villagers/potential respondents
  ➢ Use testimonials--tape recorded message from “big men”
  ➢ Seek broad contacts, avoid directed meetings (class, clan, caste)
o Possible additional activities during the village visit
   ➢ Conduct a rapid appraisal
   ➢ Assess the available of a sampling frame
   ➢ Draw sample of respondents

e) Initial Farmer/Respondent Contact
   o Begin with culturally appropriate “small talk”
     (e.g., praise & flattery, ask about health/family)
   o Expand on study’s purpose, how he/she was selected
   o Offer “lubrication” material--small gift, cigarettes, candy

f) Strategies to Maintaining Rapport During Field Work
   o Avoid culturally inappropriate behavior
     (e.g., drinking, dress, too much of a hurry to “get down to business”)
   o Consider living in the village/participating in activities (but compensate)
   o Contact village leaders during each visit
g) Explaining & Implementing Random Sampling
   o People may want to know “Why was I selected/not selected?”, so explain reason/method for random sampling
   o Consider Including “village” leaders in the sample to show their approval of the study (but exclude in analysis)
   o Identify culturally relevant strategy for selecting the sample (e.g., pick sample at a public meeting with village leaders present)

5. Staffing (Casley & Lury, Ch. 7, The Team)—comments? ???
   a) Full research team—for a large study--includes:
      o Team leader (you?)
      o Enumerators, Field supervisors
      o Office data editors, Data entry staff, Secretary

   b) Asses staff requirements
      o Number and type
         ➢ Operations schedule should include estimate of needs
         ➢ Consider Including “extras” to replace dropouts
c) Selecting Enumerators—Critical to Survey Research
(Bulmer, Ch. 17, Interviewing & Field Organization)—comments?

- Consider possible biases due to enumerator-respondent effects
  (Fig. 17.1):
  - Personality--friendly, hard working
  - Language--knows local language/farmers’ dialect
  - Education--literate, has knowledge of study’s subject matter
  - Similar background--same tribe, ethnic group, religion
  - Experience—previous sales, survey research experience
  - Gender--cultural (Phil. women, Moslem, men); depends on
    study’s focus (production vs. consumption)
  - Age--older enumerators are generally better

- Potentially good interviewers (strengths/weaknesses)
  Consider what skills/characteristics are needed for your study
  - Agricultural research staff
    Advantage--knows about agriculture
    Disadvantage--possible not available full time due to job
➢ Local secondary school graduates
  Advantage—may know the area, language
  Disadvantage--may dislike working in rural areas, feel they are too “educated” to relate to farmers

➢ Local teachers/teachers in the village
  Advantage--knows community, area, language, and are well respected
  Disadvantage—may not be available when needed, due to their job

➢ Extension agents/health workers
  Advantage--knowledgeable about agriculture
  Disadvantage--may have poor reputation, associated with government

➢ Local farmers
  Advantage--knowledgeable about agriculture, community
  Disadvantage—may be illiterate
- Research institute’s permanent enumerators
  **Advantage:** experienced doing surveys
  **Disadvantage:** may be hard to “retrain”, difficult to fire

- University students on vacation
  **Advantage:** literate
  **Disadvantage:** not always available, may lack empathy

- Other Possibly “Good Enumerators?"

- People to Avoid?

  o **Choosing Among Enumerator Applicants**
    - Typically must hire “best” available, a compromise
    - Should screen candidates:
      - Conduct personal interviews
      - Give a calculation test
      - Ask for references
➢ Hire **first** as trainees, **then** select ‘best’ trainees as enumerators

➢ **Best** to hire fewer enumerators and extend length of the survey to reduce logistics needs, non-sampling error, supervision

d) Training Enumerators

  o **Objective**--minimize enumerator bias
    (i.e., all enumerators ask same questions, record same answer)

  o **Duration (1 week?)** a function of:
    ➢ **Questionnaire**--length, complexity (open/closed questions, need to teach measurement techniques)
    ➢ **Experience of trainees**
      ✓ Typically mixed group
      ✓ Must train to reach the least experienced
    ➢ **Number of survey rounds**
      ✓ First, provide an overview of the study
      ✓ Then, train again before each round
Focus of the training

- Initial formal/office-based training (2-3 days)
  - Objective of study, Importance of their role to its success
  - Orientation to farming system to be studied
  - Job responsibilities—how to interview, enter/code data, check for consistent answers, handle difficult respondents
  - Organization of questionnaire—what data goes where
  - Def. of terms, level of specificity desired (kg vs. bags)
  - Special skills—measuring fields, estimating production (converting local units of measure to standard units)
  - Time schedule—what needs to be done and when
  - Administrative issues—conditions of service (contract), salary, per diem, chain of supervision

- Field experience/practice interviewing (2-3 days)
  - Supervisor interview a farmer—trainees record data, compare answers, discuss differences
  - Each trainee interviews a farmer—others record data, compare answers, discuss differences
6. Field Staff Management

a) Maintaining Staff Moral is Critical to Survey Research

- Conditions of employment
  - Must take into account existing “system”, staffs’ expectations
  - Must consider MSU’s/country’s labor laws/policies
    - MSU—must hire staff as an “independent contractors”
    - Can you fire staff once they are hired?
    - Is health/vehicle insurance required?
    - Govt. agencies may not allow topping up salaries

- Discuss--salary, per diem, receipts required, work hours (not a 9-5 pm job), duration of project, provisions provided (e.g., bike, motorcycle, car, flashlight, calculators, raincoat, boots)

- Package must be:
  - Fair to keep moral high
  - Consistent with laws to protect project against legal action
b) Field Office--required for large/long duration projects
   o Purpose--site for
     ✓ Holding field staff meetings, training, living space
     ✓ Storing supplies
     ✓ Checking/processing data
   o Alternatives
     ✓ Use local agency’s field office (extension)--cheap, but may create positive/negative association
     ✓ Lease/rent local building--expensive, but independent

c) Senior Staff Supervisor—required to closely monitor field work
   Note--best senior supervisor is also a data analyst (Casley & Lury, Ch. 8, Collection of Data)—comments? ???
   o Purpose--required to minimize non-sampling error, give logistics & methodological support, reduce need for recall interviews, and insure understanding of data during data analysis
Duties of the senior staff supervisor:

- Deliver supplies to remote sites, pay salaries
- Continue training on problem questions
- Resolve interviewing problems (refusals)
- Maintain good public relations with communities
- Check questionnaires for errors, omissions, inconsistencies, illegible answers
- Check for false interviews (re-interview respondents)
- Provide moral support to enumerator
- Reinforce enumerators’ commitment to accuracy (someone cares, will find out if recorded data is questionable)
- Collect questionnaires and bring them to the office for data entry
- Others?
- **Qualifications of a senior research supervisor**
  - Knows about the project’s overall purposes
  - Has survey research experience
  - Has strong team-building skills (carrot vs. stick)
  - Has ability to empathize with/motivate the enumerators (i.e., understand the difficult working conditions)

- **Supervision approaches**
  - Randomly visit enumerators (vs. schedules visits)
  - Participate in interviews to check interview style, speed, care
  - Provide enumerators with written guidelines for making critical decisions
  - Hold monthly staff meetings—provides a chance to vent problems, discuss solutions
  - Re-interview a sub-sample (5%) of respondents to check for errors in collecting/recording critical data
  - Have enumerators keep a daily log, noting problems, questions to ask supervisor, observations about the site that may provide insights during data analysis
o Supervision needs vary over project’s life
  ✓ Early in project--training role most important
  ✓ Late in project--morale building role most important

d) Financial Accountability
  o Potential problems include:
    ✓ Inadequate documentation of expenses (re. MSU’s rules)
    ✓ Misuses of resources (vehicles, supplies)
    ✓ Fraud (false receipts)

  o Before going to the field, learn how MSU requires you to document expenses and what’s expenses you can’t claim (e.g., group meals, alcohol, tips)

  o Must balance need for accountability (e.g., carryout informal checks on mileage vs. gas, monitor receipts) against potential to undermine “morale”
E. Documenting Project Activities

Need to maintain records, so you and others know what you did & why!

1. Planning Documents
   - Project proposal/research planning matrix
   - Operations schedule
   - Budget

2. Implementation Documents: set up as a computer data base
   - Administrative (all decisions, rational)
     ✓ Contracts, agreements, correspondence
     ✓ Financial records
     ✓ Daily progress log
   - Technical Decisions (memo)
     ✓ Sampling procedures—How was sampling implemented?
     ✓ Rules for handling recalls, non-response, etc
3) Progress Reports (monthly, quarterly)
   o Provide opportunity to evaluate original research plans and identify any needs for modifications before it’s too late
   o Informs sponsor about progress, keeps them involved

4) Working Papers/preliminary analysis of data
   o Helps to focus analysis at an early stage
   o Meets sponsors need for “timely indicative” results (final computer-based analysis often not available for 2 years)
   o Provides an opportunity for getting feedback from policy makers, sponsors

5) Data Processing Documents
   (e.g., procedures used, decision rules applied)
   o Recalls—When/why were recall interviews conducted, which answer was accepted (first or last)?
   o Coding—How were open-ended questions coded?
   o Dropping observations—What rules were used for dropping respondents/observations—extreme values?
6) Final Report

- Timely reporting is important
  - Policy makers must decide today
  - Timely reporting reduces the possibility of results being discounted (situation has changed argument)

- Report distribution--Who do you want to influence?
  - Future researchers
    - National library
    - Universities
  - Colleagues
    - Collaborating researches → data + documentation + reports
  - Sponsors
  - Government agencies, policy makers
F. Ethical Considerations in Social Research

(MSU’s African Studies Center)—comments? ????

1) Researchers’ obligations extend to various groups:

- People researched: must maintain confidentiality, esp. if illegal activities uncovered, negative comments (village A, B, C; destroy lists)

- Communities:
  - Disclose research objectives, sponsor, methods
  - Avoid recommending harmful action

- Colleagues:
  - Don’t impede time flow of results (even at sponsor’s request)
  - Give credit to others

- Students: give credit for work, train
o Sponsor:
  ✓ Timely performance
  ✓ Accurate reporting
  ✓ Prevent suppression of results

2. Opportunities to violate are great
   o It is difficult for others to question your research study’s results; many judgment calls involved throughout a survey research project

   o Proper action not always obvious, clear cut
      (i.e., full disclosure of sponsor may reduce local cooperation)

3. MSU’s Institutional Review Board (IRB)

   o You **must** submit an application to the IRB and receive an approval letter **before** conducting any research involving human subjects or animals.
Browse the IRB’s WWW site
  ✓ http://www.humanresearch.msu.edu

IRB requirements
  ✓ Complete on-line “Initial Education Requirement”
  ✓ Complete a IRB proposal (on-line); have your advisor submit it
  ✓ Approval may take up to 3 weeks to get approval, unless “exempt” from full review (most surveys are exempt)

Key sections of an IRB Application for Initial Review
(of a project involving human subjects)
  ✓ Category of Review
  ✓ Project Description
  ✓ Risk Assessment/procedures
  ✓ Research category--Exempt, Expedited, Full Board Review
  ✓ Consent (including consent statement)—very important
    ➢ Written vs oral consent
Figure 1.—Pitting the research project to the resources.
Figure 2-1

Stage number

Outcomes

Areas in literature to be reviewed
Suggestion of relevant universe to study

The stage

Initiating idea or need or problem area
Initial review of literature
Defining the specific research problem
Estimating the success potential of the contemplated research

Underlying dynamics

Researcher's motivation
Researcher's need to become familiar with the literature
Researcher's competencies
Researcher's motivations
Researcher's goals
Researcher's interest and experience

Outcomes

Summary of results of previous research
Ideas for data-gathering approach, method and instruments

The stage

The second review of literature
Selecting the research approach
Stating the hypotheses of the research
Selecting the data-gathering method and techniques

Underlying dynamics

Achieving thorough knowledge of problem area
Researcher's orientation in time to past, present or future
Researcher's intent to describe, compare or evaluate
Type of data needed

Criteria of research needs, cost, demand on respondents and needed skills

Stage number

1 2 3 4

5 6 7 8
Figure 2-1 continued

Outcomes

- Instruments to be used
- Descriptive statistics to be used
- Inferential statistics to be used
- Level of significance
- Layout of tables

The stage

- Selecting and developing data-gathering instruments
- Developing the data analysis plan
- Designing the data-gathering plan
- Identifying the population and invited sample

Underlying dynamics

- Needs of research problem
- Commitment to the adequacy of instruments
- Demands on researcher's skills
- Needs of respondents
- Criteria of cost, personnel, and time
- Research approach
- Needs of research
- Acceptance of research
- Realities of research setting
- Practical needs of researcher

Outcomes

- Knowledge that everything works
- Pilot studies of the data-gathering approach, method, instruments, and data analysis plan
- Implementation of data-gathering plan
- Implementation of data analysis plan
- Preparing research reports
- Dissemination of findings and agitation for action

Stage number

- 13
- 14
- 15
- 16
- 17

Figure 2-1 Illustration of the research process.
Figure 17.1: A model of bias in the interview

Source: Kahn and Cannell (1957, p. 194)