

1. Survey Research

a. Research Strategy

Learn about behavior as it is distributed across a population  
With a group that is representative of a larger population

b. Survey Team

Survey research normally involves a research team:

Project Director

Has overall responsibility for the survey project  
Including proposals, research methods, and reporting

Interview Supervisor

Coordinates the actual interviewing

Interviewers

Conduct the actual interviewing

Programmer

Codes completed interviews  
Enters the data into a computer file  
Programs the quantitative analysis of the dataset

Statistical Analyst

Directs the statistical analysis of the dataset

Responsibilities may be assigned to the same person as necessary

c. Response Rates

In order to accurately document what exists in larger population  
A significant proportion needs to be included  
Whatever proportion of the sample is missing  
That proportion of the larger population is missing

SOURCES of missing proportions of the research population:

(1) REFUSALS

Those in the sample who are contacted  
But decline to be interviewed

(2) NO CONTACTS

Those in the sample who are never contacted  
Are not at home  
Cannot be found  
Theoretically exist and can be included  
But are not included

(3) ATTRITIONS

Those in the sample who are no longer available  
Moved, died, etc.  
Theoretically should not be included

Of the no-responses:

Attritions are absolutely lost to the study  
No contacts can be included - but only with sufficient effort  
Refusals are the most available for inclusion  
At least three attempts should be made to include them  
After the first refusal  
The best interviewers should try to convince to participate

The IDEAL response rate is at least 80% of the sample  
No-responses usually consist of no-contacts/attritions  
The MINIMUM acceptable response rate is about 70%  
Less than 70% introduces serious biases in the results

d. Types of Surveys

(1) MAIL Surveys

Generally have the poorest response rates

TECHNIQUES to encourage sampled respondents to participate:

- An advance notice indicating LEGITIMACY of research
  - Sponsor
  - Purpose
  - Importance of those sampled being included
  - Appeal to respond
- A self-addressed stamped RETURN ENVELOPE for questionnaire

A series of 3 FOLLOW-UP APPEALS for non-participants

- A reminder of the legitimacy
- Another copy of the questionnaire
- A self-addressed stamped return envelope
- An attempt to interview by telephone or in person

(2) TELEPHONE Surveys

Often have marginal response rates (60-80%)

TECHNIQUES to enhance responses:

- An advance notice indicating LEGITIMACY of research
- A request to refusals to arrange a more convenient time
- A repeat attempt to interview by best interviewer(s)
- A FOLLOW-UP mailed card appealing for cooperation
- And/or a follow-up appeal from the project director
  - To arrange a convenient time to be interviewed
- An attempt to interview in person

(3) PERSONAL Surveys

Generally have the best response rates (70-85%)

TECHNIQUES to enhance responses:

- An advance notice indicating LEGITIMACY of research
- A request to refusals to arrange a more convenient time
- A repeat attempt to interview by best interviewer(s)
- A FOLLOW-UP mailed card appealing for cooperation
- And/or a follow-up appeal from the project director
  - To arrange a convenient time to be interviewed

2. Sample (n)

A representative cross-cut of a larger population (N)

a. Define the N as specifically as possible

Characteristics - demographic, behavior, etc.

Size - based on desired Confidence Intervals and resources

Location and access

b. Types of Samples

NONPROBABILITY Samples:

Cannot prove subjects are truly representative of the population

(1) **Opportunistic Sample**

Whoever is available on an accidental/incidental basis

EG: "Man on the street" interviews

(2) **Quota Sample**

Individuals according to PREselected characteristics

EG: Predetermined % of gender, age, etc. traits

(3) **Purposive Sample**

Selection of a "typical" group

EG: Professionals/neighborhoods as "typically" middle class

PROBABILITY Samples:

Each member of population has equal chance of being selected

Random numbers can be computer generated or obtained from tables

(1) **Simple Random Sample**

Selection by random numbers from list of individuals

EG: The 4th, 31th, etc. persons on a voters registration list

Modified random sample:

Every 16th household in an area, beginning with the nth

The most unbiased, simplest, easiest method of sampling

Best when do not know much about the population

(2) **Stratified Random Sample**

Randomly select defined strata - by area/characteristics/etc.

Then randomly select units within strata

Proportional to known distributions

EG: Sample neighborhoods

Then sample houses in each sampled neighborhood

Useful when know something about a large population

More efficient with a large population

Can also be used to oversample small group

Then statistically weight responses to be proportional

(3) **Cluster Sample**

Randomly select defined units

Then include everyone within those units

EG: Sample voting places, and include everyone who votes

(4) **Stage Sample**

A combination of strata and cluster sampling

Sample defined strata/units, then interview everyone in unit

EG: Sample n urban and n rural voting places

According to proportions known in a census

Include everyone in sampled places

### 3. Questionnaire

Development of an instrument to elicit information relevant to issues

Good questions are essential to get good answers

RELIABILITY - consistently measures same behaviors

VALIDITY - accurately measures what respondents think/feel

#### a. Identify Information Items

Define the purpose and uses of the research

Identify the general issues

Team discussion is a useful method for developing focus

Qualitative PRESTUDY

Informal observation/discussions with members of the population

Types of ideas/experiences

Range of ideas/experiences

EMIC CATEGORIES that are meaningful to population

Review of relevant literature

Issues already investigated

Items already tested in other studies

Build on existing information - reduce redundancy

Keep purpose/assumptions of other studies in context

Develop a comprehensive LIST of information desired

Categories

Detailed items on which we want to gather information

b. TYPES of Questions

(1) CLOSED Questions

PRECODED response categories are provided  
Responses should be based on group's meaningful emic views  
In some cases it may be appropriate to "force" a view  
EG: Possible actions to institute a policy

The ORDER of response categories  
Categories should be ranked based on research goals/issues  
By greater quantity, more positive views, etc.  
EG: 1 Unfavorable view 1 Yes, approves of discrimination  
2 Favorable view 2 No, disapproves  
Greatly helps quick understanding of results during analysis  
EG: Relationship between age and attitude (-0.683)

The MORE categories the greater the variability measured  
Reliability/validity  
EG: Yes/No vs. Very bad/Bad/Good/Very good

An EVEN number of categories best sorts directions  
EG: 1 Very opposed  
2 Somewhat opposed  
3 Somewhat favorable  
4 Very favorable

Sometimes an ODD number of categories is appropriate  
To measure a middle/noncommittal view  
To identify those with a clear direction

More than 3 categories are hard for people to understand  
Though can incorporate standard set of more responses  
EG: For a long series of attitude questions  
1 Strongly disagree  
2 Disagree  
3 Undecided  
4 Agree  
5 Strongly Agree

ASSETS of closed questions:  
Can enter responses directly into dataset  
Easier to analyze

LIMITATIONS:  
Needs preliminary research to identify emic categories  
Meaningful views of research population  
Range of views  
Have to carefully pretest for meaningfulness and validity

In general, the more work invested BEFORE asking questions  
Will make analysis easier

(2) OPEN Questions

Asking for information from their point of view

Should include probing for more in-depth meanings

EG: 10. We would like to learn more about how you feel about your neighborhood. What do you think about this area?

11. What are some of the things you like most?
12. Why do you like these things?
13. What things do you not like so much?
14. Why don't you like these things?

Need to allow sufficient space for responses to be recorded

ASSETS of open questions:

Elicits more meaningful, valid, and complicated views

LIMITATIONS:

Hard to code and analyze

After 20-30 responses can begin developing categories

Then have to code all interviews

Subject to researcher bias in interpreting responses

In general, the less work invested BEFORE asking questions

Will make analysis more difficult and complicated

(3) COMBINATION of Open/Closed Responses

Sometimes both open and closed responses can be effective

An open "OTHER" category can be added to closed responses

This can also include a request to explain the response

This helps insure that all views are considered

A open question can probe for meanings to closed responses

EG: 20. In general, do you like or dislike the services?

1 Dislike

2 Like

21. Would you please explain why you feel this way?

Probing can be used to elicit deeper meanings

Closed questions can be used to clarify open responses

EG: 33. What do you think about the services here?

Now I'm going to read a list of services provided by organizations like yours. Please tell me whether you: like, or dislike these services.

Dislike Like

34. Medical insurance. Do you dislike or 1 2  
dislike the health insurance you  
receive here?



c. Construction of Questions

Questions should be developed for each item in the information list  
And for each set of questions

The researcher assumes the responsibility to HELP the respondent  
To understand what we are seeking to learn  
To answer with meaningful and valid information  
The more we can help the respondent, the better our data will be

The PHRASING should be carefully developed  
The wording should be CLEAR  
To help the respondent to understand what is being asked  
And EXPLICIT  
To help the respondent focus exactly on the point being raised  
The phrasing should elicit ACCURATE and RELEVANT information  
For both questions and responses

Questions should generally be NEUTRAL in inferred meanings  
Asking for information or views as they exist  
Regardless of their meanings  
Sometimes we may want to bias a question AGAINST our purposes  
To identify the extremes  
To measure the degree of possible opposition  
To control for our own biases

Questions should direct the FOCUS of interviewer and respondent

EG: 46. Now we would like to learn more about your views concerning laws on occupational safety. In general, do you think current laws are or are not effective in ensuring work places are safe for workers like you?

- 1 Are not effective
- 2 Are effective

The visual LAYOUT of questions can greatly help direct the focus

EG: Now we would like to learn more about your views concerning laws on automobile safety. For each of the following laws, please tell us whether you: Strongly disagree, somewhat disagree, somewhat agree, or strongly agree with these laws.

Strongly    Somewhat    Somewhat    Strongly  
disagree   disagree   agree   agree

52. Requiring air bags    1       2       3       4  
for all cars. Do you  
strongly disagree,  
somewhat disagree,  
somewhat agree, or  
strongly agree that air  
bags should be required?

An introductory statement and layout are particularly useful in asking a series of questions

For personal interviews, FLASH CARDS can be used

To keep response categories clear

Particularly with complicated or a long series of questions

They also help to keep the focus clear

Questions should be carefully phrased to help CONTROL FOR BIASES

SOURCES of biases include:

ACQUIESCENCE

Respondents tend to say what they think the interviewer wants

Or what is the "correct" answer

SENSITIVE issues

Respondents may guard deviant or embarrassing behavior

Researcher/interviewer biases

Conceptual, methodological, situational, personal biases

Several TECHNIQUES can help neutralize the effects of biases:

Include several VALIDITY questions

Ask different questions to elicit the desired information

Ask for respondent's general estimates about the behavior

Then about his own views and/or behavior

Ask the questions both positively and negatively

Place these questions in different parts of the interview

Take the respondent OUT OF FOCUS

Ask about what "people in general" do/think

Assumes that HIS views will be expressed

Vary the ORDER of response categories

Can be randomly varied from interview to interview

Include REVERSE phrasing of the question or categories

Can be varied from interview to interview

EG: 66. Do you like or dislike this law?

66. Do you dislike or do you like this law?

Conduct FOLLOW-UP INTERVIEWS with subsample of respondents

Go over responses

Ask to go over MEANINGS and influences in responses

Sometimes may want to purposefully bias questions

To identify the extremes

To measure the degree of possible opposition

To control for our own biases

Review all questions/responses for how data will be ANALYZED

Make sure valid information will be elicited

And will be in the most useful format

All questions and sets of questions must be PRETESTED

To ensure valid and useful information will be elicited

To test how easy/hard it will be to elicit needed information

To test the planned procedures for analyzing the information

d. Organization of the Questionnaire

The overall questionnaire should be carefully developed

To make it EASY for the respondents to provide useful information

To help them help us

To DIRECT their mental focus:

Help them understand what we want to know

Introduce each section and block of questions

Organize sections/questions from general to specific

Inform about sensitive questions

And ask their help in our understanding

Ease out

The ORDER of sections normally include:

(1) Instructions to Interviewer (for Telephone/Personal Surveys)

Sampling procedures (as appropriate)

Initial greeting

Alternate explanations for respondent's questions/hesitations

Interview log

(2) Introduction

A lead-in to stimulate interest and cooperation

Explain the general purpose of the research and interview

Help orient focus

(3) Informed Consent Statement

Purpose of the survey

Inform and stimulate interest

Length of interview

Respondent rights:

Complete confidentiality

To not respond to any question or participate in the survey

To ask any questions

Any risks

Ask specific permission to be interviewed

Consent recorded by respondent and/or interviewer

Thanks for participating

(In mail interviews, return of interview constitutes consent)

Date/time interview begun

(4) General Questions

Initially broad questions  
To get respondent comfortable talking  
To orient the respondent's focus  
To elicit general information

(5) Specific Content Sections/Questions

Questions to elicit specific information about research issue

(6) Sensitive Questions

Save until near end (as appropriate)  
Lean-in statement  
Inform that are going to ask sensitive questions  
Request help in our understandings

(7) Demographic Questions

Important in analysis of social group trends  
Normally includes:  
Age, sex, place of birth, citizenship, education  
Marital status, household size/composition, rent/own home  
Household annual income  
Religious denomination, labor/professional organizations  
Registered voter, political party preference, voted  
liberal/conservative

(8) Closing

Wind-down and lead-out  
Thanks for help

(9) Interviewer Notes (for Telephone/Personal Surveys)

Information about interview  
Time, problem questions, interferences, etc.  
Interviewer ratings on the research issue (if appropriate)  
Respondent's attitudes, validity of responses, etc.  
Instructions for interviewer editing  
So all responses are clear and codable

Information/rating items need to be very specific  
With criteria for making judgements very clear

When interviewing in a second language:

- Translate into the second language

- Separately translate back into primary language

- Compare with original for accuracy of relevant information

- Pretest

In bilingual surveys have same set of questions front/back

Length

- Review possible sections and questions for interview time

- Personal interviews - not more than 1 hour

- Telephone interviews - not more than 20 minutes

Review draft for how data will be ANALYZED

Include planners/coders/analyzers in questionnaire development

- Clear purpose and easily analyzable

Complete

- The questionnaire should be ready to use exactly as is

- Including instructions, questions, probes, flash cards, etc.

e. Pretesting the Questionnaire

Prepare a complete draft of the questionnaire

DISCUSS in detail with about 10 people from the research population

Fully explain the purpose of the research

Are all sections and questions clearly understandable?

Do they elicit accurate and relevant information on the issues?

ADMINISTER the questionnaire in a trial test with population

How easy is it to answer?

How long does it take?

Revise questionnaire as needed

Specific questions

Overall organization

Produce final version

Often have to make modifications in the field

As the questionnaire is "tested" for real

4. Interviewers (for Telephone/Personal Surveys)

a. Interviewer Skills

Interviewers must develop skills for obtaining useful information:

ELICIT their views and attitudes

And control for our own views and attitudes

MANAGE the interview relationship

Establish cooperation and openness

Elicit reliable and valid information

Our role: Active learners - of the views of the respondents

Specific interviewing skills:

FAMILIARITY with the survey purposes/information to be learned

Sound JUDGEMENT in eliciting useful information

Obtaining the active COOPERATION of the respondents

Active LISTENING - for accurate, valid, reliable meanings

RECORDING interview information - accurate, usable

b. Selection of Interviewers

Responsibility

Control of own biases

Good listeners

Social skills

NOTE: Women often have these skills already developed

They also generally make less threatening interviewers



c. Interviewer Training

Goals:

Develop ability to efficiently MANAGE interview  
GUIDING the respondent's focus and interest  
ELICITING useful information

Vs. reading/asking questions

The survey data will only be as good as the interviewers' abilities

(1) Orientation

Review PURPOSES and METHODS of the survey  
Build INTEREST and a TEAM atmosphere among group

(2) Review Questionnaire

Review PURPOSES of each section and question  
FAMILIARIZE with general and specific content

(3) Read Questionnaire

Have each interviewer read entire questionnaire  
Individually, ALOUD to self  
Get used to questions and own voice  
Develop interviewing voice and tone

(4) Discuss Questionnaire

Group review of sections and questions  
Clarify meanings and information to be elicited

(5) Review Interviewing Principles (Section 6)

Preparations - materials, appearance, attitude, etc.  
Making contact - introductions, legitimacy, etc.  
Conducting interviews - managing focus, probing, records, etc.

(6) Behavioral Observation (if applicable)

Observation of respondent's behavior  
Validity, interest level, thoughtfulness, etc.

Context of interview

Respondent - appearance, attitudes, social background, etc.  
Setting - presence of others, disruptions, life style, etc.

Ratings of respondent's attitudes regarding research issues

(7) Role Playing

- Demonstrate role playing and discuss
- Practice interviewing each other
- Develop ease with interview information
- Develop interviewing attitude
- Trainers provide feedback
- Group discuss of interviewing

HOMEWORK: Practice interviews

- Approximate actual interviewing situation
- Review individually for early feedback/development
- Group discussion

5. Interview Assignments (for Telephone/Personal Surveys)

a. Develop General Interview Plan

Plot sampling locations on a map  
Consolidate interviews in same area

Segregate initial interviews from follow-ups/refusals  
Put best interviewers on refusals

b. Develop Daily Interview Plan

Plot sampling sets  
Initial interviews, follow-ups, refusals

Identify logistics  
Personal interviews: Travel, meals, etc.  
Telephone interviews: Telephone numbers, etc.

c. Interviewer Assignments

CHECK OUT

Give questionnaire forms  
Go over list of interviewees  
Discuss logistics, etc.

CHECK IN

Go over interview record - completed, no answer, refusals  
Review each completed questionnaire with interviewer  
Completeness, accuracy, interviewer notes, editing, etc.

d. Daily Debriefing

Discuss progress  
Review problems  
Develop modifications

Develop an effective interview team  
An important part of the research effort  
Develop the most effective means for achieving the research goals

6. Survey Interviews (for Telephone/Personal Surveys)

The actual collection of information from the survey population sample

Guiding principle: Standardized stimulus

Ask the SAME questions in the SAME way to all respondents

So all differences in responses reflect their differences

Not our conceptual, methodological, situational, and personal biases

A survey is DESIGNED to cover a cross-section of what's out there

This includes all kinds of people

Nice/mean, eager/reluctant to talk, optimistic/pessimistic, etc

The differences reflect on THEM

Not us - can't take personally (positively or negatively)

It INTERESTING to see what's there

Enjoy learning!

a. Preparations

Make sure each interviewer has the necessary MATERIALS

Identification badge, letter of introduction, notebook, etc.

**Corrected** questionnaires, flash cards, etc.

Make sure the interviewers' APPEARANCE is acceptable

Neat and clean - "legitimate"

CHECK OUT procedures:

Go over list of interviewees - addresses, sequence, etc.

Review logistics, safety considerations, common sense, etc.

Review general survey issues and plans

"Tune in" to research issues

Attitude - they are the experts, we are asking their help

Respect, interested in their views, humor, etc.

Go over responses to common objections

b. Making Contact

PURPOSES:

- To get inside (for personal surveys)
- To keep talking (for telephone surveys)
- To initiate a cooperative relationship

Challenges:

- To transform being a stranger intruding into people's lives
  - Into being an INTERESTED LEARNER talking with the "expert"
- Interact with the person - vs. read or talk to
  - Take initiative
  - But be respectful, and don't be pushy
  - Ask for their help

Their initial reactions: Curiosity and caution

- Draw on their CURIOSITY
- CALM their cautions

Establish our LEGITIMACY:

- Ask for the person to be interviewed
- Identify oneself - badge
- Give a brief explanation - stimulate curiosity
- Appeal for their help

Say we want to COME IN and talk

- Don't ask "if can" - be positive
- Once inside interview highly likely
- Refusal rates affect the empirical validity of survey results
- Try to get accepted into their home as soon as possible

c. Answering Their Questions (Where Applicable)

(If necessary) explain survey more in general terms

Avoid specific explanations

Explain that have been told cannot bias answers

Suggest they can ask specific questions at end

It is alright to talk about it then

COMMON QUESTIONS:

Be familiar with possible questions and explanations

(1) Who are we?

Show identification tag

Explain the survey is being conducted by the [University]

Explain that YOU are a [student] working for the [University]

It is your JOB to interview people

NOTES: This insulates you from personal intrusion/reactions

It also engenders sympathy for "just doing your job"

(2) How were they selected?

Explain that everyone to be interviewed was RANDOMLY selected

Like a LOTTERY - there is nobody specific in mind

Everyone selected is REPRESENTATIVE of a segment of the public

It's important that we learn their views

Because they do represent the views of others like them

For example, people of their [age,sex,etc.] share views

On such issues as the economy, social issues, etc.

If we miss their views we cannot have a COMPLETE picture

Appeal to their help in our learning what everyone thinks

(3) What good is this? How will the results be used?

Explain that many social issues involve emotional reactions  
Policies are made on the basis of a crisis or single event  
For example, expensive [day care] programs may be developed  
because of a single case of [child abuse]  
The issues may not be carefully thought out and planned  
So people are disappointed and the program fails

It's important to fully understand what people think  
What do people NEED?  
What do they WANT [for the kind of care their children get]?

The survey is designed  
To learn what people [in our community] THINK and WANT  
To build a balanced understanding

We need to understand their views to have a complete picture  
THEY are representative of a segment of the public  
That's why we need to learn what they think  
So we can learn what ALL people in the community think

(4) Don't really know much

We need to learn what people do NOT know as well as what do

There are no **right or wrong answers**  
Want to learn what they think  
They are the only one that can do this

If they suggest we interview another (father, neighbor, etc.)  
That they know more  
Explain about the random SELECTION  
And how THEY are representative of a segment of the public  
We need to understand their views to have a complete picture  
Appeal to their help in our learning what everyone thinks

APPEAL for their HELP

(If necessary) explain that you are just doing your job  
They are the experts on what they think

In cases of tough/hostile questions, refer to project director  
Is not the interviewer's job to deal with conflict about survey  
Explain that you are just doing your job  
BE POLITE

Even if they are rude/hostile, this reflects on THEM - not you  
A survey is DESIGNED to get a cross-section of what's out there  
And we really would like to find out what they ALL think !

d. Securing the Interview

Try to get inside (for personal surveys)

APPEAL for their HELP

(If necessary) explain that you are just doing your job

They are the experts on what they think

Once they have consented (for personal surveys)

Ask if we can talk somewhere that is COMFORTABLE and PRIVATE

Suggest an obvious place

We want to maintain their attention/interest

And avoid distractions/disruptions

e. Informed Consent

We are required to obtain their informed consent

Participants have the RIGHT to:

Know the purpose of the study

Complete confidentiality

Not respond to any question or not participate in the survey

Ask any questions about the interview

Know of any risks

Inform them of their rights

Ask their specific permission to be interviewed

Record their consent

Follow the instructions on the questionnaire



f. Managing the Interview

Interviewing functions on two LEVELS:

- (1) Eliciting information on the research issues
- (2) MANAGING the interview

DIRECTING the respondent's mental focus

Initial general orientation

Specific focus from section to section, question to question

TEACHING the respondent how to provide us useful information

Most questions and response categories are not "normal"

HELP them help us

Respondent needs to develop ease in answering

Clear INSTRUCTIONS

ENCOURAGEMENT in attempts to respond

Can sometimes visually read questions WITH the respondents

Keeping the PACE

Both we and they have other things to do

We want to learn - but as efficiently as possible

Move faster through less important sections

Probe for depth in more important sections

Building a RELATIONSHIP

We want them to feel comfortable in sharing their views

Be INTERESTED - we are the learners

All kinds of people will be interviewed

All are interesting

All can provide us with useful information

INTERACT with the respondent

DISCUSS the items - rather than dry questioning

HELP them help us

Be aware of their reactions

Help with items that may be complicated or uncomfortable

g. Asking the Questions

STANDARDIZE all questions

All interviews should be conducted exactly alike

As much as is possible

Any differences should be THEIR differences

Not individual differences from interview to interview

Not differences among interviewers

Ask all questions EXACTLY AS WRITTEN

Speak distinctly

Follow written phrasing

In the order questions in which questions are written

All questions, and all parts of questions

If the question not understood, repeat it as written

Introductory statements and instructions CAN be discussed

To help maintain the focus

Ask all questions in a NEUTRAL manner

Do not BIAS the respondent's perspectives

Do not try to prompt, lead, direct, or give examples

Do not try to add a specific interpretation of the question

Do not give examples

Do not indicate own feelings

We want to understand their views - not our own

Encourage their responding (vs. their particular responses)

Be interested - look at them when they speak

Make encouraging (but neutral) movements, noises, comments

EG: Nod, "That's interesting," etc.

Recognize their efforts to answer difficult/sensitive items

Show respect - that it's alright to have views

Keep up the pace

h. Probing

PROBING is a technique for eliciting deeper views  
Can direct the course of the conversation  
But follows their conceptual categories/experience

TECHNIQUES for probing:

(1) ECHO

Use their statement as a basis for deeper inquiry  
EG: "People are afraid? I wonder why."

(2) Ask for MORE INFORMATION

Ask for a further explanation of what they mean  
EG: "What else?", "Is there another one like that?", etc.  
Asking "What?" calls for more information  
Vs. asking "Is there anything else?" (too easy to say "No")

(3) ENCOURAGEMENTS

Make encouraging (but neutral) movements, noises, comments  
EG: Nod, lean towards, "Hmm!", "That's interesting," etc.

DO NOT LEAD - involves a predisposed/assumed view

Do not ask for an answer to a specific interpretation  
EG: "Did John lose the race?"

Do not give examples, etc.

Do not ask a Yes/No question

Leading calls for a biased response

Imposes our mindsets

Elicits acquiescence, coverup of private matters, etc.

If at stumbling point, explain exactly what we are trying to learn

Can ask for them to give an example

Dealing with uncomfortable situations:

Take individuals out of focus

EG: "What do PEOPLE think about that?" (IE, what do YOU think?)

Generalize

EG: "Someone else said that..."

Build personal sharing - cite own experience, etc.

EG: "My mother once told me that."

Sympathize

EG: "I really get tired from this kind of thinking too."

Be interested, show respect

i. Recording Responses

A pencil is preferred

Record all responses on the interview form  
It is alright to use shorthand/abbreviations  
As long as the text is written out later for the coder

Put an answer to all questions  
Put an "X" over precoded response codes  
Or "DK" (don't know) or "NR" (no response)  
If no answer, add a note explaining why

Record their responses  
As COMPLETELY as possible - can use back or spare sheets  
As verbatim as possible - in respondent's own words  
Vs. our paraphrase - which introduces biases  
Our interpretations  
Or what we want them to say

j. Closing the Interview

When the interview is over it can be awkward to break it off  
They have revealed views and feelings  
A relationship is being ended

We want to leave behind good feelings  
Thank them for their help  
They have helped us learn  
Can be personal  
Joke, share our own experiences, etc.

(If necessary) Answer any questions about the survey/questions  
Reassure about confidentiality  
If there are tough questions, refer to project director  
Use "just doing a job" if necessary to ease out

If they express interest in the survey results  
Say can contact the project director - give name and address  
Or take name/address - give to project director

k. Interviewer Comments

Fill out all items

Including length of interview, characteristics of respondent, etc.

Interviewer ratings of respondent's attitudes/views (if applicable)

Use best judgement for ratings (know the respondent the best)

Briefly explain

k. Editing

Edit the whole interview as soon as possible

While still fresh in your mind

Go over every item

All items are completed

Make explanatory notes where necessary (margins, back side)

Note respondent's behavior RE validity, background, etc.

Legible (for coder to read and understand)

Complete

The interviewer's signature indicates complete editing

l. Debriefing Interviewers

CHECK IN procedures:

Go over interview record with interviewer

Note completed, no answer, refusals

Review each completed questionnaire with interviewer

Completeness, accuracy, interviewer notes, editing, etc.

Responses clear for coding

Identify interviewing problems

Make modifications in questionnaire/methods as appropriate

Provide feedback

Daily debriefings with all interviewers

Training continues throughout the interviewing stage

Identify common problems - and how to handle them

Questions, responses, recording

Interviewing techniques

Identify good interviewing tricks - learn from each other

## 7. Data Analysis

### a. Codebook

A codebook is a plan for coding and analyzing each variable  
Should be well thought out before actual coding of responses

#### (1) Identify all variables in questionnaire

Specific items to be coded

#### (2) Identify specific codes for each variable:

##### CLOSED Questions

Response choices = code

For each item, assign a code for each possible answer

EG: Dislike Like

34. Medical insurance. Do you like or not 1 2  
like the health insurance you receive?

Assign a one-digit code, "1" or "2" (as appropriate)

##### FIXED Questions

Allow for maximum response choices

For each item, assign a maximum-digit response code

EG: For "Age" assign 2 digits (01 through 99)

##### OPEN-ENDED Questions

Review about 30 responses

Identify major categories of responses

Based on the research GOALS

The RANGE of responses

The FREQUENCY of responses

Rank the categories

Based on the research GOALS

Assign a code for each high-frequency response type

Or additional response type relevant to research goals

Assign an "Other" category for low-frequency responses

EG: Q 34. What do you think of the services here?

0 No response

1 Not very good quality

2 Not very accessible

3 Likes the quality

4 Excellent, both good quality and accessible

##### OTHER codes include:

"NA": No answer - question not asked (EXPLAIN)

"NR": No response given to question (EXPLAIN)

These can normally be coded "0" or left blank

Depending on statistical package for quantitative analysis

- (3) Assign a RECORD and COLUMN number and a NAME for each variable

Each RECORD normally has a maximum of 80 COLUMNS  
A continuous set of numbers are assigned each variable  
Including the Interview Number  
The appropriate number of digits for each variable/question  
Demographic characteristics, interviewer comments  
Interviewer  
Each variable NAME is assigned - normally  $\leq 8$  digits

- (4) A copy of the COMPLETE CODEBOOK is produced

One for each coder, project director, etc.

The codebook will be used throughout the analysis  
Coding  
Referring to codes in interpreting quantitative results  
Etc.

b. Coding and Data Entry

Accurate coding and data entry are an essential step in analysis

Data errors are easy to make and are bound to happen

The most common errors are:

Missing a number, so that all figures slip over a column

EG: "13428860" for "134288860"

Mixing look-alikes

EG: "1" and "7"

Transposing numbers

EG: "86" for "68"

Coding/entry procedures should PLAN on finding/correcting errors

(1) Code each completed questionnaire

Each day

Bring any questions to the interview supervisor and director

Where necessary have project director make coding decisions

Where necessary recode previous questionnaires

Ensure all future coding is consistent with decisions

(2) Have a second coder go over each completed questionnaire

Bring any questions to the interview supervisor and director

(3) Enter the data for each questionnaire into a computer file

Each day

Where possible, set up a computer format for data entry

Have a second person read numbers (in sets of 2-3) to puncher

Print a copy of the data entered

Read data to someone checking against original interview

Correct dataset as necessary



c. Data Checks

Before analysis, the dataset needs to be tested

To identify its strengths and limitations

How it can and cannot be used

(1) Errors

The most common errors are:

Missing a number, so that all figures slip over a column

Mixing look-alikes

Transposing numbers

To check for errors in the dataset:

Print an initial copy of the dataset

Print the frequencies for each variable

Check the distribution of responses for each variable

EG: A "4" exists where responses are normally 0 through 3

Check the appropriate columns in the dataset for the error

Check figures against the original interview as necessary

Make corrections as necessary

Data check programs can also be developed

To test for unknown/illogical data for each variable

(2) Reliability

Reliability is the replicability of results

SOURCES of unreliable data include:

- Nonrepresentative sampling
- Respondents do not represent research population
  - So responses vary accordingly
- Interviewer differences
- Interviewers ask differently or otherwise introduce biases
- Changes over time
- People's views are vague and not well formed
- People change their views as they consider the issues
- Unusual intervening events
- A particular event heightens people's awareness of an issue
  - And introduces a bias in people's awareness
  - This can include being interviewed
- By interviewing, some people form views
  - These views can be spread to other respondents
  - Even before they are interviewed
- This is a particular in a small/cohesive research group

RELIABILITY TESTS include:

**SPLIT-HALF** reliability test

- Randomly assigning respondents into two groups
- Test for significant differences on each variable

**INTER-INTERVIEWER** test

- Conduct analysis of variance on interviewers
  - To identify significant responses by interviewer
- If significant differences are found
  - Test each interviewer against the others

**TIME-FRAME** test

- Conduct analysis of variance by dates of interviews
  - To identify significant differences across time

Other tests may be conducted where biases may be suspected  
Including significant differences in age, gender, etc.

(3) Validity

Validity is the exactness with which data measure phenomena

SOURCES of invalid data include:

- Imprecise concepts of phenomena to be measured
- Inaccurate methods to measure phenomena being studied
- Untruthful answers given by respondents
  - Acquiescence - trying to give "correct" or "polite" answer
  - Recall bias - biased memory of what thought or did
  - Lying - not saying what really think or do

VALIDITY TESTS include:

Relationship between variables designed to elicit same thing  
Insignificant or weak correlations

EG: Response to "Of what country are you a citizen?" is "USA"; when response to [later] question "Where were you born?" is "Toronto, Canada"; and response to [later] question "How long have you been in the U.S.?" is "2 years" (much below the residency requirement for immigrants)

Relationship between responses and known facts

EG: Response to "How old is your son?" is "8 years" when birth records indicate 10 years

Relationship between responses and interviewer observations

EG: Response to "Where were you born?" is "USA" When interviewer notes "Speaks no English"

The project director and other team members have to make decisions

On inaccurate, unreliable, and invalid data

What are the best measures?

For the dependent, independent, and control variables

May have to throw out unreliable or invalid variables

At the minimum may have to QUALIFY uses and interpretations

Are OBLIGATED to report any limitations in data

d. Data Reorganization

Scales of several variables may be constructed to better measure a multi-faceted factor

A scale may be composed of the SUM of a set of variables

EG: "Knowledge" may be constructed by how many items a respondent knows

A scale may be composed of the statistical INTERRELATION between a set of variables

FACTOR ANALYSIS can indicate how much variables measure the same phenomenon

EG: Q.42 Do you believe the cost of medical care is too high?  
and Q.61 Do you think the government should help cover the cost of medical care?

may be highly interrelated

with Q.42 loading .8966 on Factor 1

and Q.61 loading .8744 of Factor 1

and Factor 1 accounting for .787 of the variance

So "Attitudes towards health care" may be constructed by taking Q.42 (the strongest correlation) as a measure or by computing the scale based on factor values

Scales must be logically justified

In terms of both the research goals and the variables used

e. Patterns

For each dependent, independent, and control variable produce:

FREQUENCIES - to indicate the RANGE and DISTRIBUTION of values

EG: Attitudes towards mandatory drug testing of employees

- 1 Strongly agree 12%
- 2 Somewhat agree 14%
- 3 Somewhat disagree 36%
- 4 Strongly disagree 38%

And often the MEANS or other measures of central tendencies

- EG: Age 36.2 year
- Household size 4.2 persons
- Annual income \$21,634.98

STATISTICAL ASSUMPTIONS about the level data must be kept in mind:

NOMINAL data

Categories where one value is not assumed to be greater than another

EG: Church - Baptist is not "greater" than Catholic

ORDINAL data

Ranks where one value is assumed to be greater than another

But the exact distance between values is not known

EG: Strongly disagree, disagree, agree, strongly agree

INTERVAL data

Ranks where there is a known distance between values

- EG: Age - 36 years vs. 42 years
- Income - \$42,000 vs. \$12,000

Patterns are the first step in understanding the data

The range and distribution of behavior

This forms the BASIS of interpretations

EG: When prejudice is demonstrated to be

- 1 Very prejudiced 20%
- 2 Somewhat prejudiced 48%
- 3 Not prejudiced 32%

A significant correlation of  $-.3211$  between prejudice and income has to take into account that the most people have some prejudice, and therefore the statistic is primarily distinguishing between the MOST prejudiced and the LEAST prejudiced

f. Relationships

RELATIONSHIPS are the ultimate focus of analysis

What factors influence the dependent variables

STATISTICAL ASSUMPTIONS about the level data must be kept in mind:

EG: NOMINAL data - Phi

ORDINAL data - Spearman's Rho

INTERVAL data - Pearson's r

BINARY correlations indicate individual influences:

Significance: How much is the relationship likely to be CHANCE  
for a given population?

Strength: How much does the independent variable INFLUENCE the  
dependent one?

EG: The correlation between income and prejudice is  $-.3211$   
with  $p=.0012$

It is highly likely that this relationship is true,

but, while it is an inverse association,

the relationship is only a mild one

Generally, correlations  $\leq .05$  or  $.01$  level of significance

and  $\geq .250$  strength are reported

Correlations  $\geq .60$  are normally quite strong

in the social/behavioral sciences

MULTIVARIATE analysis indicates the combined influence  
of a set of independent variables on a dependent one

REGRESSION and ANALYSIS OF VARIANCE are normally used

Any set of variables that explains  $\geq .50$  of the variance

is usually quite strong in the social/behavioral sciences

That is, how much of the distribution of the dependent variable

is explained by the set of independent ones?

Though the alternate view of how much is NOT explained

must be kept in mind

g. Interpretations

The interpretation of quantitative results should seek to EXPLAIN:

Both PATTERNS and RELATIONSHIPS

The MEANINGS of behavior to the research population

The FUNCTIONS of behavior in the research population

If possible, review results with people of the research population

Ask if the results make sense to them

If so, ask what the results MEANS to them

And how do the behaviors FUNCTION to help meet life challenges

Also, ask WHAT ELSE helps explain the [dependent variables]

To make sure we have a comprehensive understanding of the data

And what else may be operating not explained by the data

## 8. Reporting

In reporting survey/quantitative results

Follow the general format used by professional journals in the field

Such reports generally include consideration of:

### METHODS:

Definition of the research population

Sampling techniques

Comparison of the sample with census data (if appropriate)

Response rates

Confidence intervals, or similar measures of variation in responses

### QUANTITATIVE FINDINGS:

Tables and/or graphics that give patterns and relationships



Summary

Points of DISTORTION in field survey research:

- Sampling
- Questionnaire preparation and phrasing
- Interviewer training and interviewer reliability
- Statistical procedures appropriate for different levels of data
- Keeping interpretations within bounds of data

ASSETS of survey research:

- Findings are representative of the study population
- Can demonstrate the range and distributions of behavior
- Can demonstrate the significance and strengths of relationships

LIMITATIONS of survey research:

- Understanding the depth of meanings of behavior may be limited
- The validity of responses is subject to biases

OTHER QUANTITATIVE TECHNIQUES:

- Structured observation
- Standardized tests

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Attach modified copy of CalFwSurvey questionnaire