



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Selecting a Method of Data Collection

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USAID
FROM THE AMERICAN PEOPLE



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I need to
work on my
research
skills.



WHAT IS IT?

YOU SAID
TO DO AN
ABSTRACT



Methods of data collection

- Observation



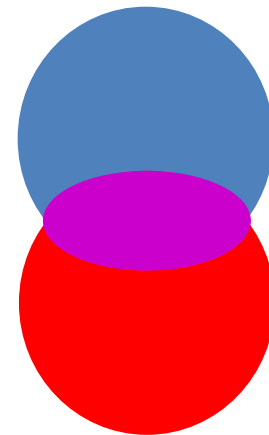
- Questionnaires



- Interviews



Self-report



Types of observation studies

- Structured observation
 - Frequency of actions
 - Provides quantitative information



- Participant observation
 - Meanings people attach to their actions
 - Provides qualitative information



Structured observations

Requires **precise** coding

Advantages

- Reliable
- Can examine relationships
- Can conduct in natural setting

Disadvantages

- Must be on-site
- Must make inferences



Potential bias in observation

- Participants aware of being observed and change behavior « Hawthorne effect »



- Observer biased towards a particular participant « Halo effect »

Ways to collect information

- Observation



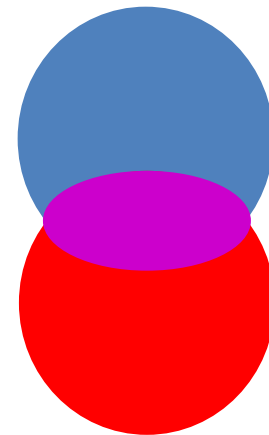
- Questionnaires



- Interviews



Self-report



Types of questions

- Attribute variables
 - Respondent characteristics
- Opinion variables
 - What respondent feels or believes
- Behavioral variables
 - How often respondent does X, Y, Z



Questionnaires

- Paper or electronic
- Self-report or administered



Questionnaires: advantages (self-report)

- Access to large #s of people
- Ease of data collection
- Access thoughts and feelings
- Relatively low cost

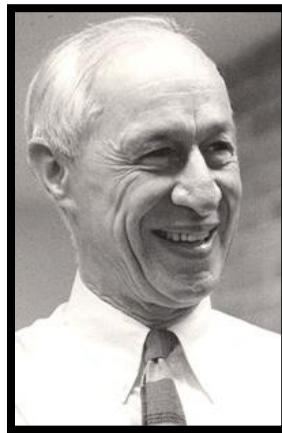


Questionnaires

- Open answers
- Closed answers
- Rating scales (« semantic differential »)
- Likert scales



Quantitative



Qualitative*

Examples

- Open answers

What is the best food to give a 6 month old baby?

- Closed answers

Did your child eat meat yesterday? (Yes/No)

Where is your water source located? (inside compound/public tap/other)

- Rating scales

Rate the area where you live:

Safe ___/___/___/___/___/ Dangerous

Clean ___/___/___/___/___/ Dirty

- Likert scales

Here are some statements about the students in your class. Please show how much you agree or disagree with each one.	1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree
501. The students in my class enjoy being together	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Interviews: personal conversation

- **Unstructured**



- **Structured**

- **Semi-structured**



Interviews: personal conversation

- **Unstructured** Free structure, content, wording and order of questions
- **Structured** Pre-determined questions, wording and order
- **Semi-structured** Combination



Examples

- **Unstructured**

What do you think of the new health center in your VDC?

- **Structured**

Does the new health center have enough doctors?

Is your child getting good care there?

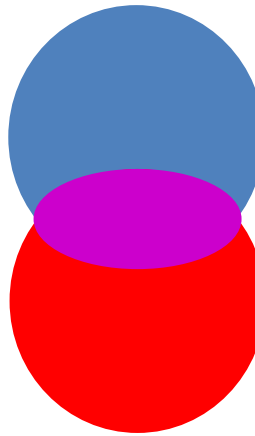
- **Semi-structured**

job interview, doctor visit



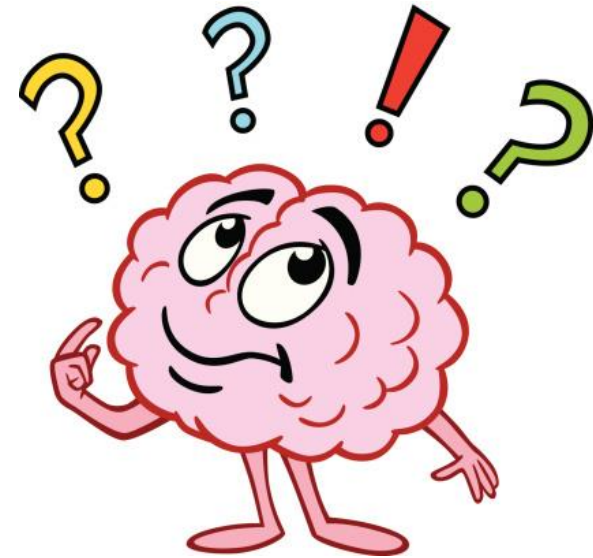
Type of interview should match type of research

- **Unstructured** - exploratory research (round 1)
- **Structured** - descriptive or explanatory research
(easiest to code and to examine relationships between variables)
- **Semi-structured** – exploratory research (round 2) and qualitative results for explanatory research



Four cognitive demands in answering questions

1. Comprehend the question
2. Recall requested information from memory
3. Evaluate link between retrieved information and question
4. Communicate response



Simplest: face-to-face interview requires only shared language and basic verbal and listening skills

Asking questions: potential complications

- Leading questions
- Clarity
- Reliability
- Generalizability
- Bias



Asking questions: potential complications

- **Leading questions**

Only bad parents force their children to carry water

- **Clarity**

I am against banning open defecation

- **Reliability**

same results under different circumstances?

- **Generalizability**

need to explain sampling strategy in detail



Types of bias in questionnaires/interviews

- **Social bias**
- **Recall bias**
- **Interviewer bias**
- **Acquiescence bias**
- **Response order bias**





Types of bias

- **Social bias** answer determined by socially acceptable norms, rather than the true situation
- **Recall bias** may be difficult without prompts
- **Interviewer bias** interviewer characteristics or attitudes
- **Acquiescence bias** tendency to agree with others (yes-saying)
- **Response order bias** preference for first or last response offered

Social bias

- **Over-report**
 - Positive health behaviors
- **Under-report**
 - Socially undesirable behaviors
 - Personal health problems
- **Incomplete or inaccurate**
 - Personal information



Potential biases by mode of questionnaire administration

Potential for	Face-to-face interviews	Telephone interviews	Self-administered, postal	Self-administered, programmed, electronic
More complete population coverage for sampling	High	Low	High	Low
Cognitive burden	Low	Great	Great	Great
Survey response	High	Low	Medium – low	Low
Item response/completion of questionnaire	High	Low	Low	Low
Question order effects	Low	Low	High	Low
Response-choice order effects	Moderate	High	High	High
Recall bias	Low	Low	High	High
Social desirability bias	High	High	Low	Low
'Yes-saying' bias	High	High	Low	Low
Interviewer bias	High	High	—	—
Length of verbal response/ amount of information	High	Low	—	—
Willingness to disclose sensitive information	Low	Low	High	High
Respondents' preferences for mode of administration	High	Low	Low	Moderate

Advantages of face-to-face questionnaire administration

Interviewer* can

- increase response rates
- maintain motivation
- probe
- clarify ambiguous questions
- help with response choice options
- aid recall
- control the order of the questions
- follow complex question routing/skips

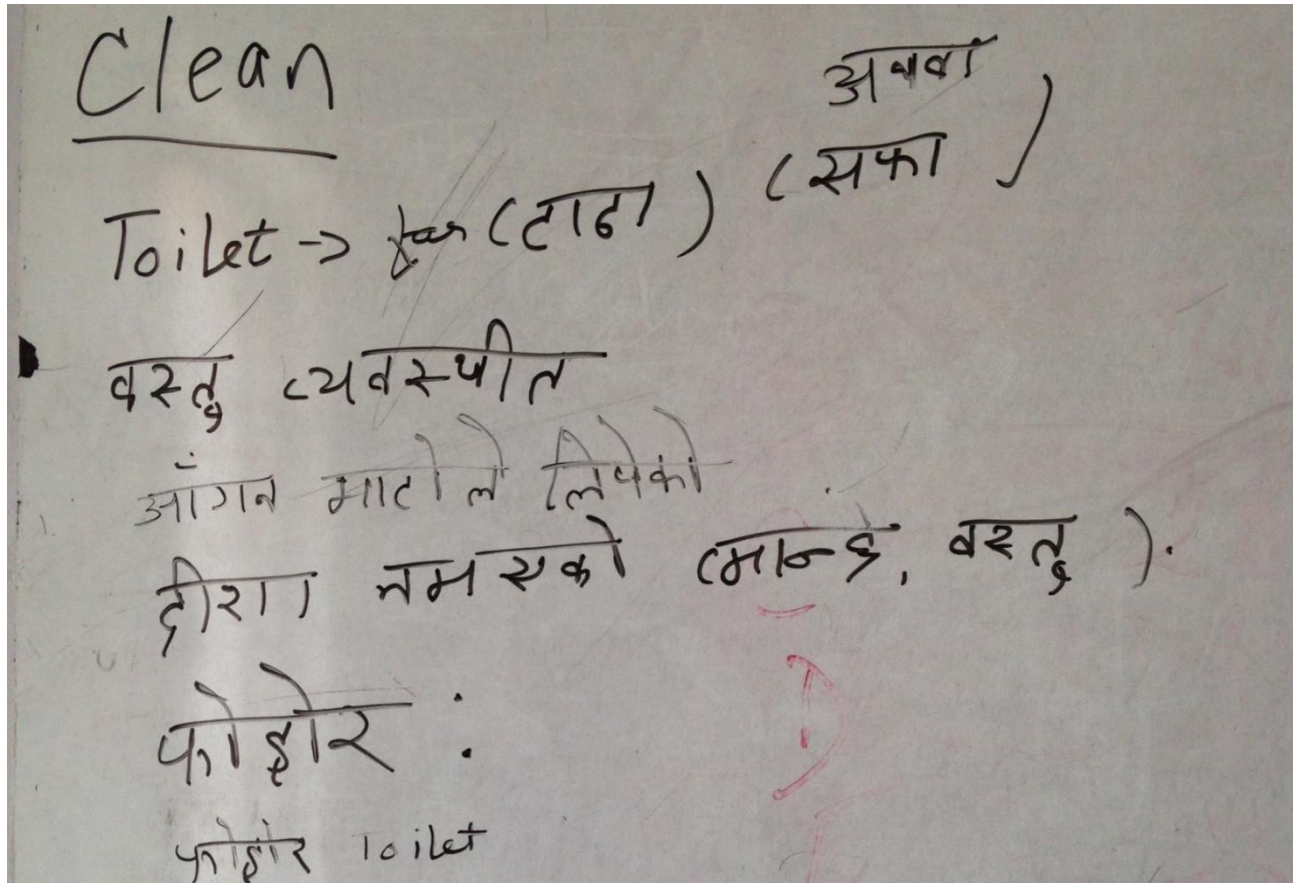


*friendly, motivating

Questions : Beware



- **Wording** *the kitchen garden conundrum*



Questions : Beware

- **Wording** *the kitchen garden conundrum*
- **Lists** *castes, religions, roof materials, occupations...include other*

- **Category** *Mind the gap!*



How often....?	
	Daily
	1x/week
	2x/week
	1x/month

Questions : Beware

- Ranking



– *Rank the most important reasons to use soap*

- Wash clothes
- Wash child's bottom
- Wash hands after defecating
- Wash hands before feeding child
- Wash hands before preparing food

Questions : Beware

- Rating questions

CAUTION

AGREE	TEND TO AGREE	NEITHER AGREE NOR DISAGREE	TEND TO DISAGREE	DISAGREE
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AGREE	TEND TO AGREE	TEND TO DISAGREE	DISAGREE
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THE WAY I FEEL
IS HARD TO
QUANTIFY!

HOW HARD -
ON A SCALE
OF ONE TO
TEN?



Questions : Beware



- Open-ended personal questions



“The client would prefer fewer open-ended questions.”

Alternative to open-ended questions

– *What was your estimated annual income for the household last year?*

vs.

– *Your household income last year was*

- a. 5-10,000
- b. 11-25,000
- c. 26-50,000
- d. >50,000



Questionnaires: how to prepare



- Adapt from others
- Use standardized instruments where possible
- Short as possible (fatigue factor especially at end)
- Review questions in minute detail with team
- Ask colleagues/friends/family to review and respond

Translations

- Translate and back-translate by different people



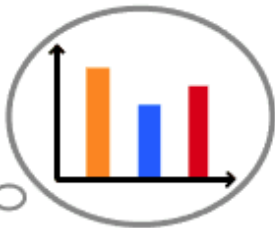
- Carefully review results for meaning/nuance



Translations



- Test and retest on proxy target population for
 - comprehension
 - clarity
 - ease of completion



(use results to test your analysis plan)





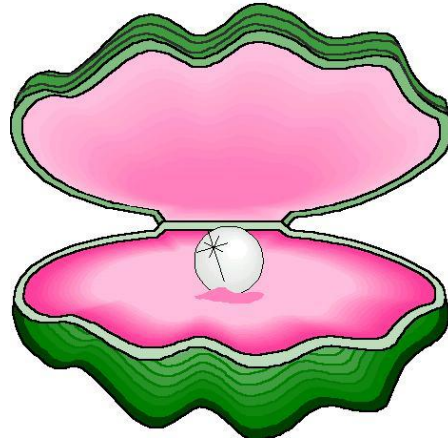
87% OF THE 56% WHO COMPLETED MORE THAN 23% OF THE SURVEY THOUGHT IT WAS A WASTE OF TIME

As part of your formative research...

- Establish SOPs
- Plan for ongoing refreshers and monitoring to minimize « drift »
- Maintain codebooks and manuals
- Note any changes made or deviations observed



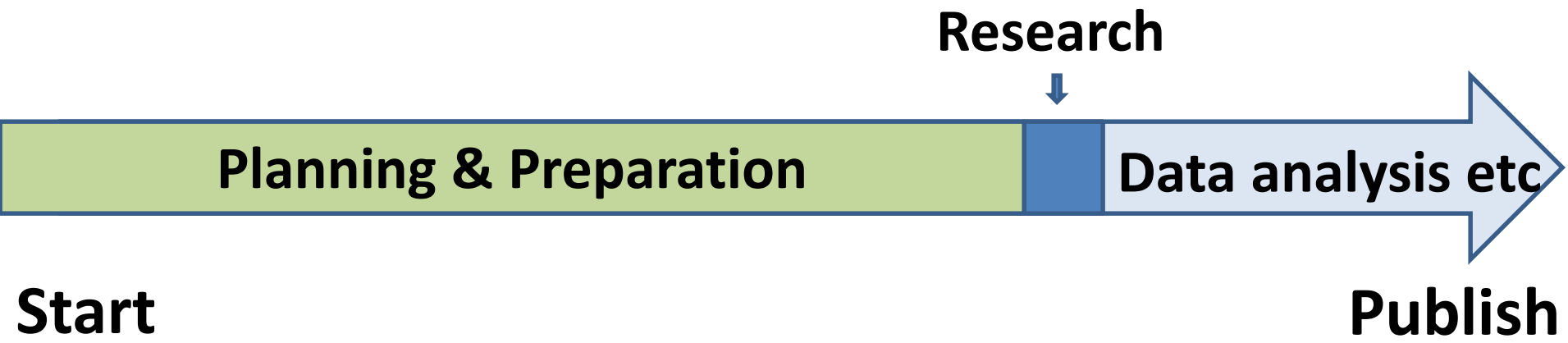
Major pearl of wisdom



Take the time to incorporate what you
have learned and make necessary
changes!!











Hang in there!