

# QUESTIONNAIRE DESIGN

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# ASKING QUESTIONS

## PROBLEMS

- ⇒ **You Must Ask the Right Question**
- ⇒ **Respondents Must Understand Your Question**
- ⇒ **Respondents Must Know the Answer**
- ⇒ **Respondents Must be Willing and Able to Tell You the Answers**

# UNDERSTANDING THE QUESTION

⇒ Literacy and Vocabulary

⇒ Ambiguity--Clear Definition

- Do all respondents understand the same way?
- Do all Rs understand the way you intended?

⇒ Minimizing the Problems

- Ask questions one at a time
- Specify details--who, what, where, when
- Specify how answer should be given  
(Closed-ended categories)
- Use simple language
- Try to use words with only one meaning
- Pretest

# DEFINE WELL AND ASK QUESTIONS ONE AT A TIME

## Bad Examples:

**#1: In the past six months, has your household purchased any major appliances new from the store?**

**(IF YES: What?)**

**#2: In the past six months, what major appliances has your household purchased new from the store?**

**#3: We consider the following items to be major appliances: refrigerators, kitchen ranges or ovens, microwave ovens, freezers, washing machines, dryers, room air conditioners, television sets, VCRs, and camcorders. In the past six months, has your household purchased any major appliances new from the store?**

## Good Example:

Now I m going to read a list of household appliances. As I read each one, please tell me whether or not your household has purchased this type of appliance new from the store during the past six months. How about. . .

	<u>Yes</u>	<u>No</u>
A refrigerator?.....	1	2
A kitchen range or oven? .....	1	2
A microwave oven?.....	1	2
[Etc.] .....	1	2

# SPECIFY

Specify who, what, when, where, and how. For example, whose income? What is included? Over what period of time?

**Q:** In 19XX, about what was your total household income, before taxes? Please count income from all members of your household, and from all sources. Was it. . . (then categories)

## NOTES:

1. The question above is for a typical household survey. If you want only the income of one individual, ask for that instead.
2. Ask about all members of the household, not the family. Household members are not always family and many family members do not live in the same household.
3. Add meaningful examples to the definition (from all sources) if you can limit them. For example, for low income households, you might add "including sources such as AFDC, food stamps, and Social Security;" for high income households--"including sources such as dividends and interest;" for elderly respondents--"including sources such as Social Security, pensions, dividends, and interest."

# KNOWING THE ANSWER

⇒ **Being There**

⇒ **Proxy**

⇒ **Memory**

- **Not important enough**
- **Too far back**
- **Too frequent to recall**

⇒ **Actual Opinion vs. Created Opinion**

⇒ **Minimizing the Problems of Not Knowing**

- **Qualify respondents for knowledge**
- **Use the right time frame**
- **Offer cues**

# CUES

**Consider providing cues to aid memory. Cues can be provided by giving examples of the behavior, such as:**

**Q: People drink beer in many places--at home, at restaurants, at bars, at sporting events, at friends homes, etc. During the past 30 days, did you drink any beer?**

# WILLINGNESS TO RESPOND (SOCIAL DESIRABILITY)

## ⇒ Social Desirability

- Desire to say "yes" to socially desirable behaviors and "no" to socially undesirable behaviors

## ⇒ Solutions

- Train interviewers to maintain a professional attitude
- Use comparative (forced) choice instead of yes/no
- Avoid loaded (socially desirable) questions
- Use open questions for sensitive issues (i.e., don't offer categories)
- Or, use categories to lessen the problem (e.g., categorize up to very high levels of drinking)
- Use longer questions to reduce sensitivity (e.g., While we know that exercise and physical activity is good for our health, it is often hard to find the time to do so. How often are you able to exercise or do physical activity?) (By exercise or physical activity, we mean. . .)

# OTHER ISSUES IN QUESTION WRITING

## ⇒ Should Questions be Open or Closed?

- **Closed questions are usually better**

Easier for R

Less coding later

Better to have R do categorizing

Categories help define the question

## ⇒ Exceptions

- **May lead Rs**
- **May make it too easy to answer without thinking**
- **Categorizing requires good pretesting (to ensure you have good categories)**
- **May limit spontaneity (and answers not listed)**
- **Not when asking for frequency of sensitive behavior**
- **When there are numerous possible responses**

# OTHER ISSUES IN QUESTION WRITING

## GENERAL PRINCIPLES

- ⇒ **Response Categories Should be Consistent with the Question**
- ⇒ **Categories Must be "Exhaustive" (include every possible answer)**
  - **Include "or less" and "or more"**
  - **Include "other--specify"**
- ⇒ **Categories Must be "Mutually Exclusive" (no overlap) (e.g., not 0-10, 10-20, 20-30)**
- ⇒ **If Appropriate, Include a "Don't Know" Category**
- ⇒ **Categories Should Relate to Only One Dimension at a Time (e.g., not excellent, good [average], fair, poor)**
- ⇒ **Order High to Low or Low to High**
- ⇒ **Consider the Effects of Category Order**

# OTHER ISSUES IN QUESTION WRITING

## ⇒ Verbal or Numerical Scales

- Verbal if 4 or fewer categories (5 or fewer with a midpoint)
- Numerical if 5 or more points
- Make sure that longer scale is necessary and meaningful
- Numerical scale for people who speak English as a second language

## ⇒ Middle Category

- Use if reasonable to expect that response
- Decision will vary by purpose, area of research, etc.

## ⇒ Don't Know

- Include if reasonable

## ⇒ Standard Demographic Questions

- Always ask last unless needed for branching

# HOUSEHOLD SIZE AND COMPOSITION

**Q: Including yourself, how many people currently live in your household?**

**If you need information about household composition, the household size measure can be followed with appropriate questions such as:**

**Q: How many are children less than 6 years old? 6 to 12 years old? 13 to 17 years old? (or How many are children age 17 or younger?)**

# GENDER

**Q: Are you male or female?**

**If an interviewer is administering the questionnaire, he/she can code gender without asking unless there is some reason for uncertainty.**

# AGE

Q: In what year were you born? 19\_\_\_\_\_

This question has two advantages over "What is your age?" First, your age changes every year but your year of birth does not, so people are more accurate concerning their year of birth (this is particularly true for older people).

Second, some people like to shave a few years off their age (especially around 30, 40, 50, etc.). They are less likely to do this if you ask for the year of birth.

# EDUCATION

**Q: What is the highest level of formal education you have completed?**

**Responses can be exact or categorized:**

No formal education .....	00
Elementary school .....	01 02 03 04 05 06 07 08
High school.....	09 10 11 12
College .....	13 14 15 16
Graduate school .....	17
Graduate degree .....	18

**OR**

Less than high school graduate .....	1
High school graduate .....	2
Some college .....	3
College graduate .....	4
Postgraduate degree .....	5

# RACE

Race (and Hispanic origin) can be asked in several ways.

**Q1: What is your racial/ethnic background?**

Would you say. . .

- White but not of Hispanic origin, ..... 1
  - African American but  
not of Hispanic origin, ..... 2
  - Hispanic, ..... 3
  - Asian, or ..... 4
  - Something else? (SPECIFY) ..... 5
- 

**Q2a: Are you of Spanish or Hispanic origin?**

- Yes ..... 1
- No ..... 2

**Q2b: What is your race? Are you. . .**

- White, ..... 1
  - Black or African American, ..... 2
  - American Indian, ..... 3
  - Eskimo or Aleut, ..... 4
  - Asian or Pacific Islander, or ..... 5
  - Some other race? (SPECIFY) ..... 6
-

# INCOME (ALWAYS ASK LAST)

Income is related to many behaviors and opinions. It also is a highly sensitive subject. In general, we like open questions for sensitive subjects, but a closed question works better for income. The use of a categorical format shows respondents that an exact income is not required and reduces the sensitivity of the income question.

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## (INTERVIEW)

**Q1:** What was the approximate annual income from employment and all other sources for all members of your household, before taxes, last year in 19XX? Was it. . . (ASK UNTIL NO, THEN CIRCLE.)

- More than \$15,000? ..... 1
- More than \$25,000?..... 2
- More than \$50,000?..... 3
- More than \$75,000?    No ..... 4
- Yes ..... 5
- (REFUSED)..... 6

## (INTERVIEW)

**Q2:** What was the approximate annual income from employment and all other sources for all members of your household, before taxes, last year in 19XX? Was it. . .

- Less than \$15,000,..... 1
- \$15,000 to \$24,999, ..... 2
- \$25,000 to \$49,999, ..... 3
- \$50,000 to \$74,999, or..... 4
- \$75,000 or more? ..... 5
- (REFUSED)..... 9

**(INTERVIEW)**

**Q.3a: Was your total household income, for all members of your household, from all sources, before taxes, for 19XX, more than \$25,000 or less than \$25,000?**

- More than \$25,000 .....1 (SKIP TO Q.3c)
- \$25,000 exactly .....2 (END)
- Less than \$25,000.....3
- Don t Know .....8 (END)
- Refused.....9 (END)

**Q.3b: Was it less than \$15,000?**

- Yes .....1 (END)
- No.....2 (END)
- Don t know.....8 (END)
- Refused.....9 (END)

**Q.3c: Was it more than \$50,000?**

- Yes .....1
- No.....2 (END)
- Don t know.....8 (END)
- Refused.....9 (END)

**Q.3d: Was it more than \$75,000?**

- Yes .....1 (END)
- No.....2 (END)
- Don t know.....8 (END)
- Refused.....9 (END)

**(MAIL)**

**Q.4: What was the approximate annual income from employment and all other sources for all members of your household, before taxes, last year in 19XX?**

- Less than \$15,000..... 1
- \$16,000 to \$24,999 ..... 2
- \$25,000 to \$49,999 ..... 3
- \$50,000 to \$74,999 ..... 4
- \$75,000 or more ..... 5

# DESIGNING A QUESTIONNAIRE

## ⇒ **Planning Questionnaire Content**

- What do you need to know?  
Define your research objectives  
Design your analysis plan

## ⇒ **Is Everything on the List Necessary?**

- Should you add extra questions if room?

# ORDERING THE QUESTIONS

## ⇒ **Minimizing Order Effect**

- General before specific (funnel)
- Many specifics before general (inverted funnel) for a more informed decision
- Use order to reduce item nonresponse

## ⇒ **Developing a Logical Flow**

- Segment by topic
- Ask about related topics together
- Ask recall backwards in time
- Use transitions when changing topics

## ⇒ **Establishing Rapport**

- Start with easy, non-threatening questions
- Don't start with knowledge or awareness questions

# USE ORDER TO REDUCE ITEM NONRESPONSE (Interview Only)

## Bad Example:

1a. In the past 30 days, did you buy a pair of slacks or jeans for yourself or anyone else?

(IF YES):

1b. Where did you buy them?

1c. Why did you buy them there?

1d. How much did you pay for them?

2a. In the past 30 days, did you buy a dress or skirt for yourself or anyone else?

Etc.

## Good Example:

1. In the past 30 days, did you buy any of the following items for yourself or anyone else? What about. . .

	<u>Yes</u>	<u>No</u>
a. A pair of slacks or jeans? .....	1	2
b. A dress or skirt? .....	1	2
c. A shirt or blouse? .....	1	2
d. Underwear? .....	1	2
e. Shoes, boots, or slippers? .....	1	2
f. A coat or outer jacket? .....	1	2
Etc.		

2. For each YES above, ask:

a. Where did you buy the (ITEM)?

b. Why did you buy (it/them) there?

c. How much did you pay for (it/them)?

# PHYSICAL FORMAT OF THE QUESTIONNAIRE

- ⇒ Use a Booklet Format for Mail Surveys
- ⇒ Identify the Questionnaire (date, title, name of sponsor, ID number of case)
- ⇒ Use Large, Clear Type. Don't Crowd.
- ⇒ Number All Questions Sequentially and Use Outline Format for Branching Questions
- ⇒ Don't Split Questions Across Pages. If necessary (e.g., question takes 1½ pages), restate question and response categories on next page.
- ⇒ Put Special Instructions on Questionnaire as Needed (***Circle all that apply, Do not read*** categories, etc.)
- ⇒ Use a Vertical Format for Closed Answers If at All Possible
- ⇒ Precode the Questionnaire (circle a number) Rather than Coding Later (check a line)
- ⇒ Provide a Beginning and an End
- ⇒ If Interview--Have an Introduction and Screening Questions if Necessary, Along with Answers for Possible Respondent Questions
- ⇒ If Mail or Self-Administered--Should Have a Cover Letter and Instructions.

# TESTING THE QUESTIONNAIRE

- ⇒ **Anyone**
- ⇒ **Professional Colleagues**
- ⇒ **People Like Those Who Will Receive the Questionnaire**
- ⇒ **Ultimately by the Method of the Final Study (i.e., by mail, telephone, or in person)**