

Writing Shorter Questionnaires: Save Money AND Get Better Data

Introduction



Charlene Randall, PRC

VP, Business Development

L&E Research

crandall@leresearch.com

919.256.9604

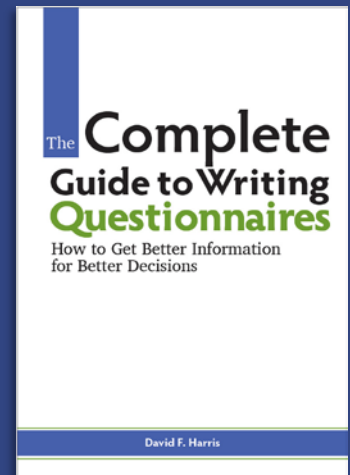
Writing Shorter Questionnaires: Save Money AND Get Better Data

From the author of:

*The Complete Guide to Writing Questionnaires:
How to Get Better Information for Better Decisions*

David F. Harris

21 August 2015



Agenda – What I Want For You

Questionnaire Length Affects Cost and Data Quality

Questionnaire Writing Affects Cost and Data Quality, too

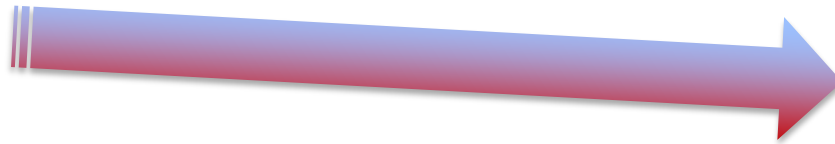
1. Replace *Questionnaire Design Speak* with *Conversational Questionnaires*
2. We Need to Talk: With Each Other, With Respondents
3. Questionnaire Design as Professional Discipline

The Framework for Writing Shorter, Better Questionnaires

Summary

Survey Length & Data Quality

Survey Length in Minutes:



1. Dropping out
2. “Satisficing”
3. Making up answers

Respondents will give you a limited amount of time and energy – use it wisely!

Survey Length & Costs

Survey Length in Minutes:

5	10	15	20	25	30	35	40	45
---	----	----	----	----	----	----	----	----



1. Going from 15 to 30 minutes increases costs by about a third
2. Recruiting, hosting, programming, tabs, project management, analysis and reporting all go up

~~\$60,000~~

\$45,000

(saved \$15,000)

~~\$130,000~~

\$100,000

(saved \$33,000)

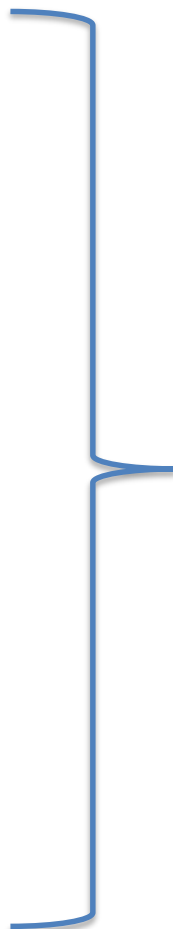
Quality of Questionnaire Writing Really Matters

Unclear

Unanswerable

Too Difficult

Biased



1. Dropping out
2. "Satisficing"
3. Making up answers



Q: How many *cars* do *you own*?

Quality of Questions Matters

Q: When determining which automobile to purchase, were you at least 50% involved in the research that led to your final selection?

1. Yes, I was the primary decision maker
2. Yes, it was a shared decision
3. No (Is that person available? If Yes...)

Quality of Questions Matters



Please rate your overall technical knowledge on a scale of 1-10 where at 10 means “I am very technically advanced and always have the latest gadgets” and 1 means “I cannot operate a personal computer.”

10	9	8	7	6	5	4	3	2	1
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Survey Response



Comprehension



Retrieval



Judgment



Response

What are they asking?

What do really mean?

Does this question relate to the previous one?

Search memory for information

Try to calculate or estimate the answer

What retrieved information is relevant

Decide what information to include/exclude

Convert answer to format of the question

Decide what to really say – edit in or edit out

Avoid “Questionnaire Design” Speak



Where we say:

“Ask what percent of your most recent purchases of individually packaged food items are your priority choice.”

Talk with clients about the **information they need**, not how to ask questions.

You are the questionnaire writer and designer!

Make Questions Clear & Easy



Which of the following best describes your role in purchasing food to be eaten at home?

- ☐ I am the primary shopper for food
- ☐ I share the responsibility equally with another household member
- ☐ I purchase food from the store but less frequently than others in the household
- ☐ I am not involved in food shopping for home

Who does MOST of the grocery shopping for your household?

- ☐ You
- ☐ Someone else in your household
- ☐ You and someone else in your household share equally in grocery shopping

(IF SOMEONE ELSE) Do you do any of the grocery shopping?

Writing Questionnaires is Arguably One of the Most Difficult Forms of Writing

- It is a “conversation” between you and hundreds, and sometimes thousands, of diverse respondents
- The conversation may take 15, 30, or even 45 minutes
- **Every single question has to be written so that every one of these diverse respondents understands each question exactly the same way**
 - Can recall
 - Willing to answer
 - Without bias
- Unlike a live conversation, however, you are not there to clarify ambiguities



Huge Volume of Knowledge on How to Write Questionnaires

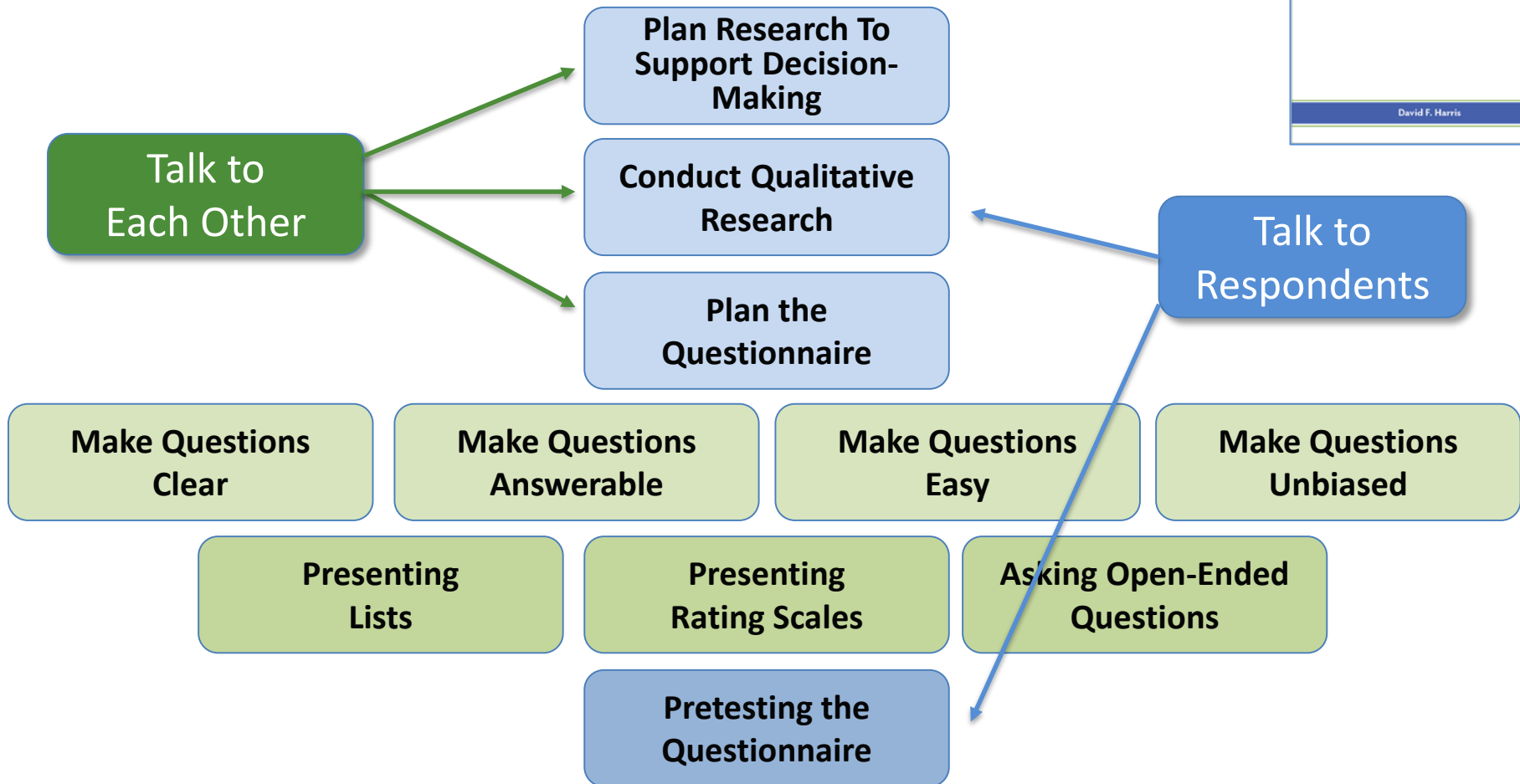
- A 75 year history of scientific and intellectual work
- University of Michigan's Institute for Social Research
- University of Chicago - NORC
- Washington State University
- Agencies within the United States Federal Government
 - The National Center for Health Statistics
 - The US Census Bureau
 - The Bureau of Labor Statistics
- The American Association of Public Opinion Research (AAPOR)
- Public Opinion Quarterly
- Jean Converse, Howard Schuman, Stanley Presser, and Don Dillman, to name a few



The Framework for Writing Questionnaires

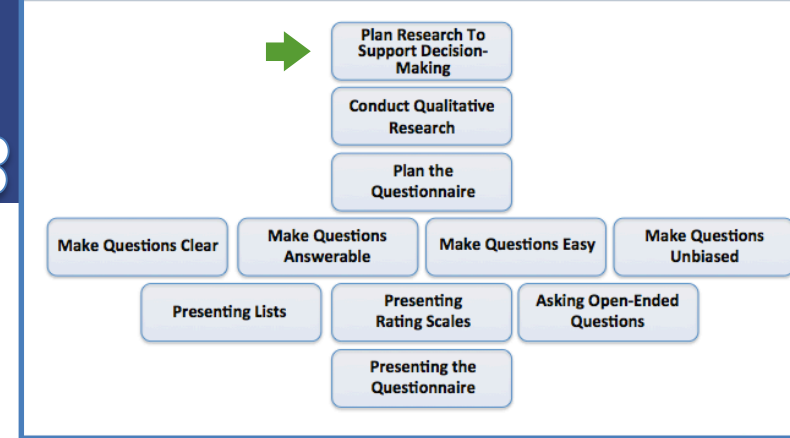
The **Complete**
Guide to Writing
Questionnaires
How to Get Better Information
for Better Decisions

David F. Harris



1. Plan Research to Support Decision-Making

- Most decisions based on 3-7 things
- This is the only way to:
 - Do the right “type” of study
 - Get the right data
 - Get accurate data



This is the key to shorter, better questionnaires

We will decide _____

The information we need to make this decision is _____

The Five Key Marketing Decisions

1. We will decide what ***benefit*** to offer
2. We will decide who is the right ***target/targets (segmentation)***
3. We will decide how to ***position*** our product/service
4. We will decide what ***story*** to tell (messages, creative, etc.) to establish that positioning
5. We will decide how to ***deliver*** our story to the right target(s) to establish the positioning of the benefit

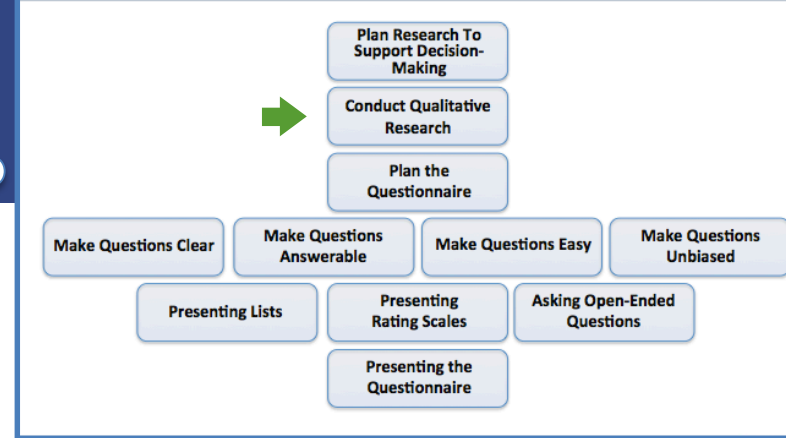
Your Key Decisions

What are your key decisions over the next 12 months?

We will decide _____.

- Rank-order the information needed to make each decision.
- Write the information down in regular speech – not questionnaire design speak.

2. Conduct Qualitative Research First



On a basic level:

- To know *what to ask*, and *how to ask it*
- To figure out *who to ask* – so you survey the right people!

On a deeper level:

- In order to understand a topic, you need the insights that only qualitative research can provide

Qualitative Issues

Qualitative Information Needs	Quantitative Information Needs
Why do so many people want to avoid taking prescription drugs?	How many people self-treat with herbal or other natural remedies (not prescription)?
How do families decide what car to purchase?	What is the difference in perception of safety between Honda and Toyota?
What do employees mean when they say they want to be valued?	What is the level of employee satisfaction this year compared to last year?

Qualitative Research Will Tell Us How to Ask This Question

Q: When determining which automobile to purchase, were you at least 50% involved in the research that led to your final selection?

1. Yes, I was the primary decision maker
2. Yes, it was a shared decision
3. No (Is that person available? If Yes...)

How do families **decide** what car to purchase?

3. Write a Questionnaire Plan

Background:

Decisions: We will decide _____

\$\$\$

<i>Information needed</i>	<i>How to ask the question</i>	<i>Analysis Plan</i>
Screener		
Message Reception		
Purchase History		
Purchase Intention		

Write a Questionnaire Plan

Decisions: We will decide which messages to use and which messages to edit.

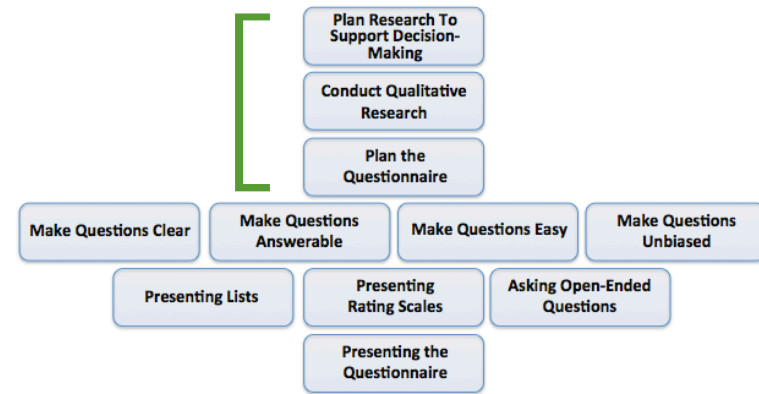
Information Needed	How to Ask the Question	Analysis Plan
Screenener		
Need males between ages 18 and 65		
Message Reception		
Find out whether customers are receiving our brand messages		Measure message association so we can correlate message association with purchase history and/or purchase intention
Purchase History		
Find out if they have purchased our product		See if those who associate our messages to our brand are more likely to have purchased our product
Purchase Intention		
Do they intend to purchase our product?		See if those who associate our messages to our brand are more likely to <i>intend to purchase</i> our product

First 3 Keys to Writing Questionnaires

1. Organize Research to Support Decisions

We will decide _____

The information needed is _____



2. Do Qualitative Research First

To know what to ask, and how to ask it

To determine who to survey

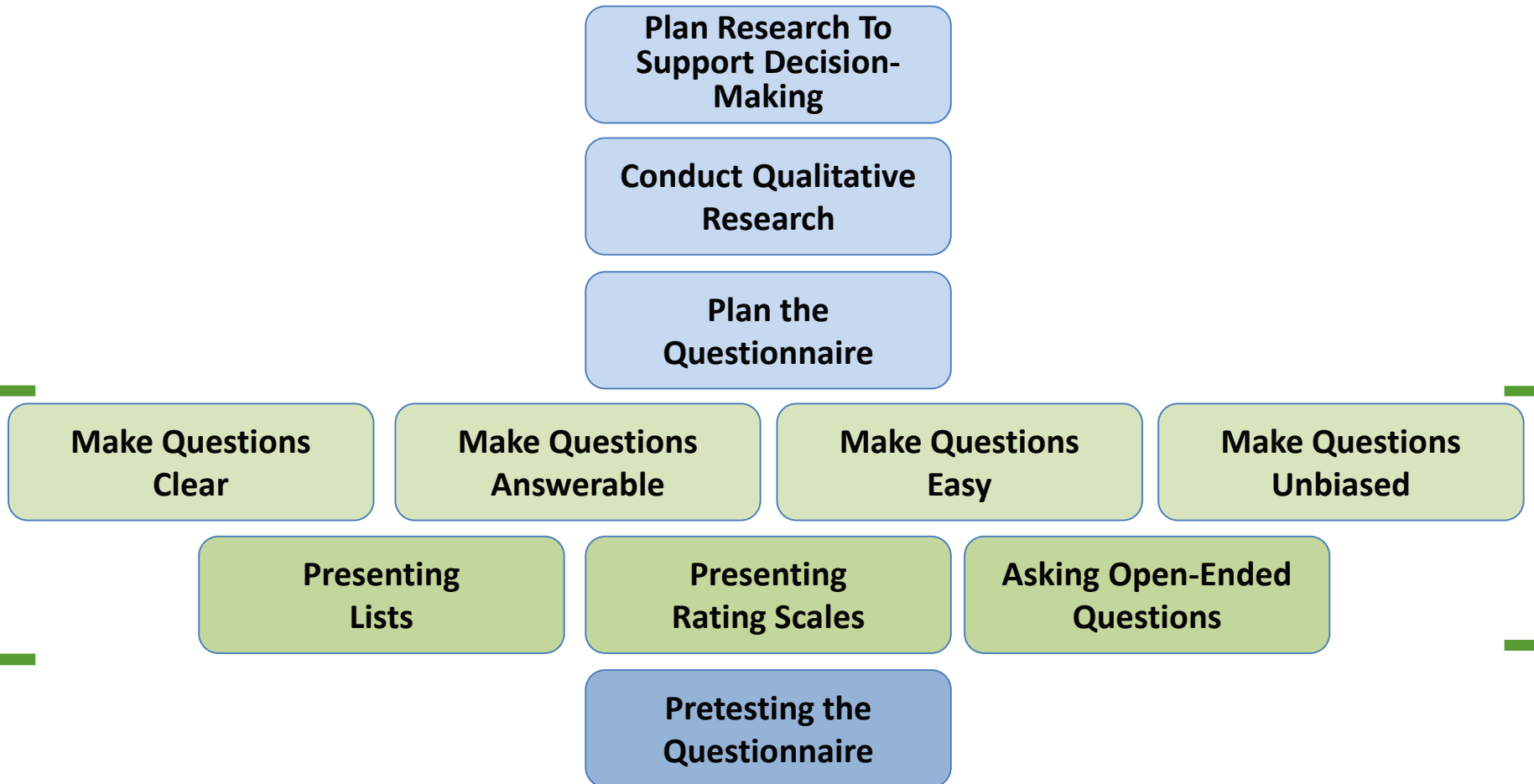
To develop a complete understanding of your subject, your respondents

3. Write a Questionnaire Plan

Organize order of information needed

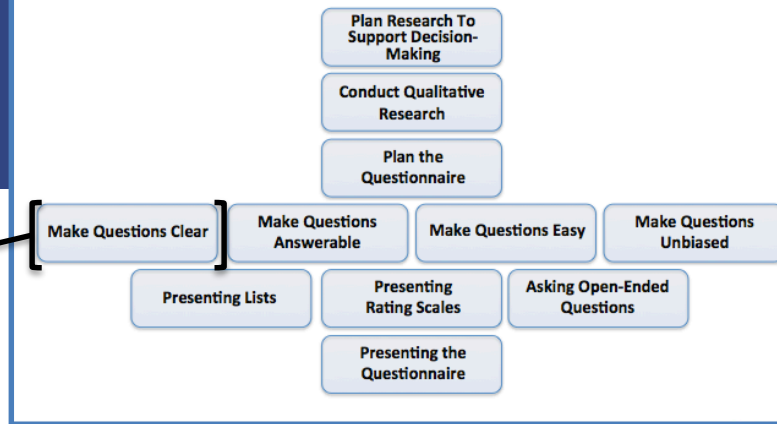
Work with clients on information needed, not how to ask questions!

Writing Questions



Writing Questions

Make Questions Clear



1. State the unit of measurement.
2. Use the vocabulary of respondents.
3. Use precise words and phrases.
4. When using the word “you,” make sure respondents know to whom you are referring.
5. Make sure the question is really asking only one question.
6. When asking for percentages, make sure the base is clear.
7. Make sure the question stem and the answer choices match each other.
8. Use bold, underlining, italics, and/or capitalization to highlight key words and phrases.

4. Make Questions Clear

How frequently do you go to the grocery store?

- ☐ Very frequently
- ☐ Frequently
- ☐ Neither frequently nor infrequently
- ☐ Infrequently
- ☐ Very infrequently

Fred:

I go there **once a week**. That is pretty frequently, so I'll say **frequently**.

Joe:

I go there **once a week**, which isn't that much, so I'll say **infrequently**.

State the unit of measurement (Clear #1)

In the past 30 days, how many times have you, yourself, gone to the grocery store?

☐ # times gone to grocery store

4. Make Questions Clear

Thinking of your typical depression patient, for what percentage do you prescribe Prozac?

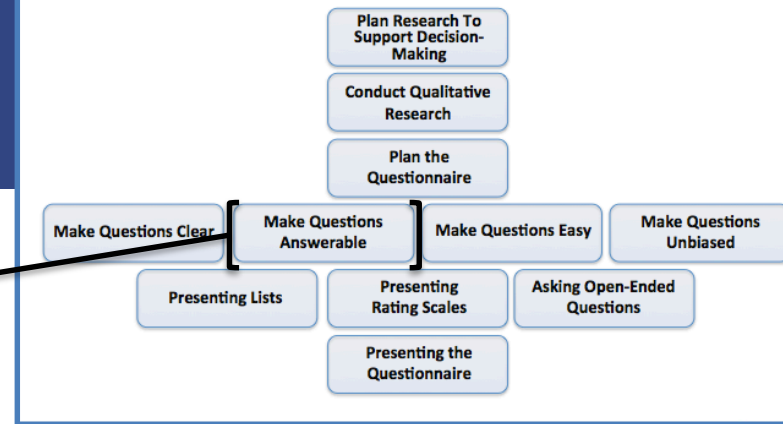
__ % prescribed Prozac

Use the vocabulary of respondents (Clear #2)

Use precise terms and phrases (Clear #3)

Writing Questions

Make Questions Answerable



1. State time frames in which people can recall the information you need.
2. Don't assume regularity of behavior.
3. Don't ask people for information they simply don't have.
4. Screen respondents to make sure each question applies to them.
5. Make "Don't *know*" an answer choice if some respondents simply don't know the answer to your question.

5. Make Questions Answerable

Q: Of the last 100 patients you have personally seen for weight control, how many are currently following the American Heart Association (AHA) exercise program?

Don't Ask People for Information They Simply Don't Have (Answerable #3)

Improved Question:

Thinking of the last 10 patients you have personally saw for weight control, for how many of these 10 patients did you recommend the American Heart Association (AHA) exercise program, if any?

5. Make Questions Answerable

Q: Thinking of the past 12 months, how often have you baked a cake?

- ☐ Less than once a month
- ☐ 1 to 3 times a month
- ☐ More than 3 times a month

Sarah:

I bake cakes when there is a birthday party. We've had **three in my family this year**, all in November. **Does that mean three times a month?**

Jamie:

I bake **one or two cakes every month** during **the school year**. I don't bake any during the summer. I do pies during the holidays. I am not sure how to answer the question.

Don't assume regularity of behavior. (Answerable #2)

4. Make Questions Clear

5. Make Questions Answerable

Do you **regularly** read the newspaper?

☐ Yes

☐ No

Do you **generally** exercise in the morning?

☐ Yes

☐ No

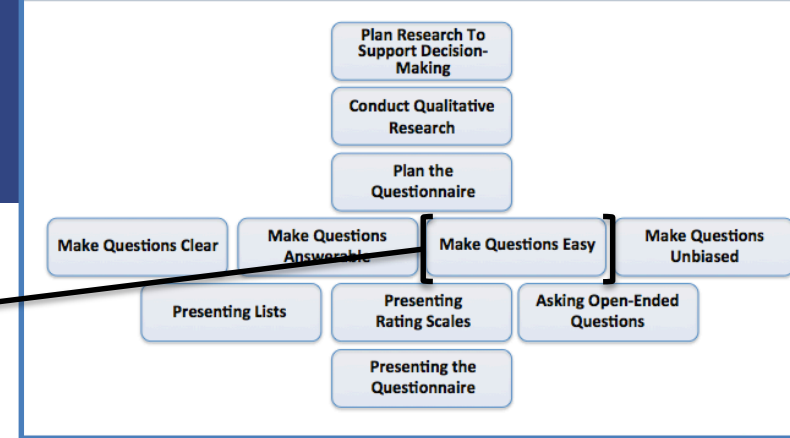
Avoid Vague Modifiers

State the unit of measurement (Clear #1)

State a time frame in which people can recall the information you need.
(Answerable #2)

Writing Questions

**Make Questions
Easy**



1. Keep the question stem under twenty-five words.
2. When writing questions, say the question out loud as if you were talking to someone.
3. Limit the length of the questionnaire.
4. Don't ask for more detail than you really need.
5. Soften questions with phrases such as *approximately*, *your best estimate*, or *as best you remember*.
6. Don't ask questions in the form of complex grids.
7. Add labels to answer categories.

Two Versions of a Question



V1. Which of the following best describes your mindset for the type of vehicle you are shopping for?

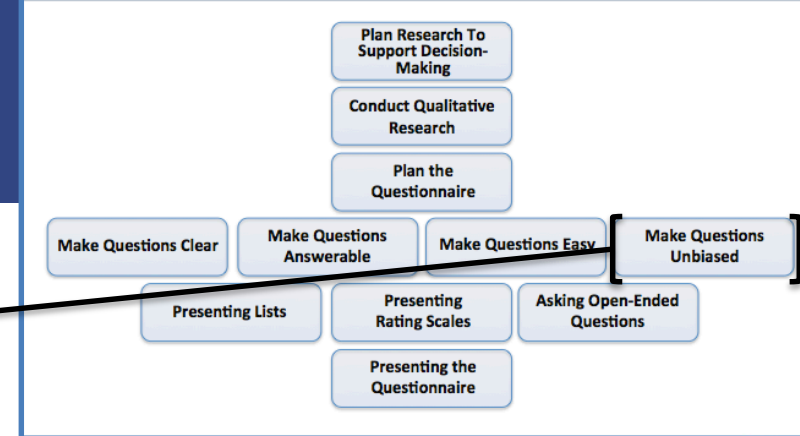
- ☐ I am only shopping for new vehicles
- ☐ I am primarily shopping for new vehicles but considering used vehicles
- ☐ I am primarily shopping for used vehicles but considering new vehicles
- ☐ I am only shopped for used vehicles
- ☐ Not Sure

V2. Would you say you're shopping for a...

- ☐ Used vehicle only
- ☐ Used vehicle but will consider a new vehicle
- ☐ New vehicle but will consider a used vehicle
- ☐ New vehicle only
- ☐ Not Sure

Writing Questions

**Make Questions
Unbiased**



1. Do not introduce ideas or opinions in questions that will influence responses.
2. Make sure that none of the answer choices is more loaded than any of the others.
3. Make clear that either a positive or a negative answer is equally acceptable.
4. Randomize answer choices if there is a possibility of order bias.
5. To get sensitive information, consider disguising the question, shifting the focus away from the respondent, softening the question, or collecting correlated data.

7. Make Questions Unbiased

Q: Will you finish your project on budget?

To get sensitive information, consider disguising the question or shifting the focus away from the respondent. (Unbiased #5)

Improved questions:

Do you foresee any circumstances that might prevent you from finishing your project on budget?

(IF YES)

Please describe the circumstances and provide suggestions about how we might overcome them:

7. Make Questions Unbiased

Q: Please indicate how much you agree or disagree with the following statements.

Strongly disagree 1 2 3 4 5 Strongly agree

- a. Our company values its people.....1 2 3 4 5
- b. The company gives me the opportunity to train and develop.....1 2 3 4 5
- c. I get adequate feedback from my manager.....1 2 3 4 5

Replace agree/disagree scales with direct questions about what you really want to measure. (Scales #10)

8. Scaling – The Scale Toolbox

1. **What do you want to measure** (e.g., likelihood, interest, satisfaction, or something else)? Consider how people think about the topic.
2. Should you use a **unipolar or bipolar** scale? Think about whether the dimension you are scaling has a natural opposite.
3. What will be the **length of the scale** (e.g., 5 points, 7 points, or some other length)? Think about how many levels people actually have in their heads.
4. If you have a bipolar scale, should you provide a **midpoint**? Does it make sense to force respondents toward one side of the scale or the other?
5. Will you **label** only the endpoints or also all of the middle points between the endpoints?
6. What will you **name the endpoints** (e.g., very satisfied and very dissatisfied, or extremely satisfied and extremely dissatisfied)?

Scaling

Q: How comfortable are you....

- ☐ Very uncomfortable
- ☐ Uncomfortable
- ☐ Somewhat uncomfortable
- ☐ Somewhat comfortable
- ☐ Comfortable
- ☐ Very comfortable

Bipolar scale with no midpoint

Q: How interested are you

- 1 Not at all interested
- 2
- 3
- 4
- 5
- 6 Extremely interested

Unipolar scale with only the endpoints labeled

It is also an even scale

Scaling – Instead of Agree / Disagree Scales

Q: Please indicate the extent to which you agree or disagree with the following statements.

	Strongly Disagree			Strongly Agree	
	1	2	3	4	5
I strive for perfection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a confident person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I dress more fashionably than most people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scaling

Q: Please indicate how well each of the following statements describes you personally?

	Does not describe me at all			Describes me very well	
	1	2	3	4	5
I strive for perfection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am a confident person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I dress more fashionably than most people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scaling

Q: How well does the following statement describe each brand?

“Easy to use”

Not well
at all

Very well

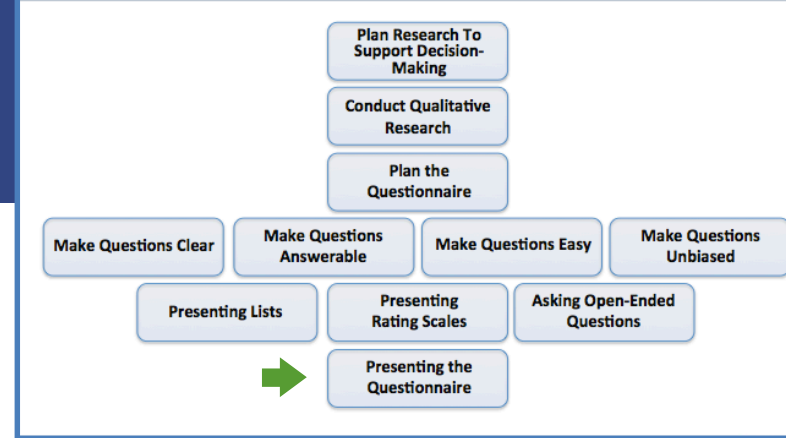
	1	2	3	4	5
Brand A	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand B	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brand C	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Scaling

Q: Below are pairs of statements about your most recent car purchase. Please select the statement that reflects how much better that statement describes you.

	Describes me much more	Describes me a little more	Describes me a little more	Describes me much more	
I bought this car because I wanted it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	I bought this car because I needed it
Statement 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Statement 2
Statement 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Statement 3

11. Properly Pretest the Questionnaire



- Ask respondents to tell you in their own words what they think each question is asking. This way you will find out if the questions are working as intended
- Ask respondents how they came up with their answers
- Find out what comes to mind when respondents think about certain terms and phrases
 - “What does the term ‘own’ mean to you?”

11. Properly Pretest the Questionnaire

Cognitive Probe	Example
Comprehension / Interpretation	What does the term <i>outpatient</i> mean to you?
Paraphrasing	Can you repeat the question in your own words?
Confidence Judgment	How sure are you that your health insurance covers drug and alcohol treatment?
Recall Probe	How do you remember that you went to the doctor five times in the past 12 months?
Specific Probe	Why do you think that cancer is the most serious health problem?
General Probes	How did you arrive at that answer? Was it easy or hard to answer? I noticed that you hesitated. Tell me what you were thinking.

Source: Gordon B. Willis, *Cognitive Interviewing: A Tool for Improving Questionnaire Design* (Thousand Oaks, CA: Sage Publications Inc., 2005).

11. Pretesting the Questionnaire

Q: Do you think **young people** who smoke cigarettes have more friends?

- ☐ Definitely yes
- ☐ Probably yes
- ☐ Probably not
- ☐ Definitely not

They also thought these answer choices meant that young people who smoke have fewer friends

Pretesting Agree/Disagree Statements

Strongly
Disagree

1

2

3

4

5

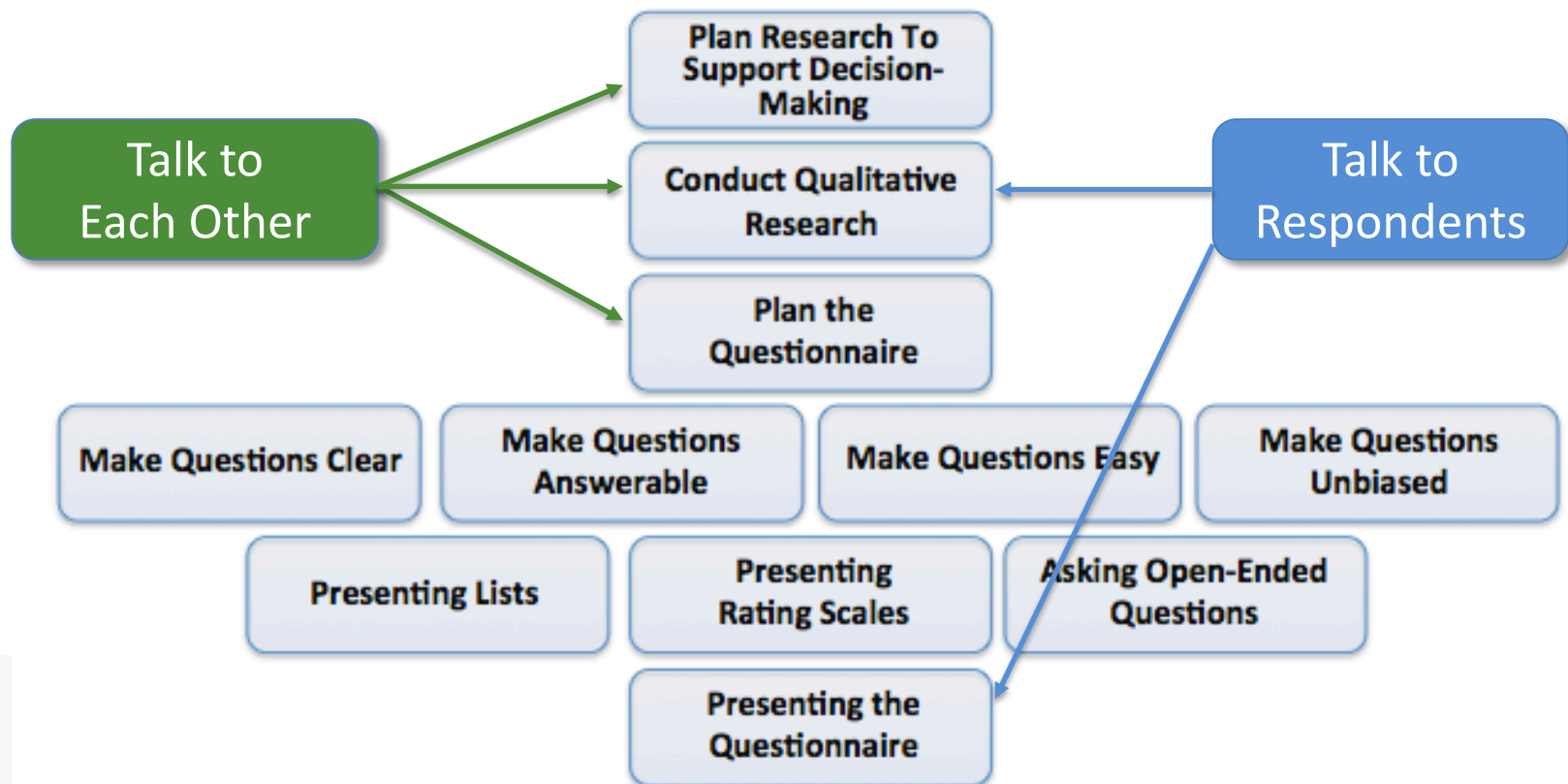
Strongly
Agree

1. Eating fruits and vegetables will help me live a healthier life.
2. I eat more fruits and vegetables than other people I know.
3. I never hesitate to go out of my way to help someone in trouble.
4. Generally, I like sweet foods.
5. I eat enough fruits and vegetables to keep me healthy.
6. I have never intensely disliked anyone.

Summary & Commentary

We can save money, get better data and make better decisions:

1. If we treat questionnaire design as a professional discipline
2. And we talk to each other and to respondents
3. Replace questionnaire design speak with conversation



If you have questions, don't hesitate to contact me

Information about **training workshops** and **consulting** on
website: DavidFHarris.com

David F. Harris

david@DavidFHarris.com

www.davidfharris.com

919.451.0786

